Disruptive Behavior Disorders and Emotional Intelligence:

A Correlational Study

by

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Abstract

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This study examined the correlation of emotional intelligence, as measured by the Adolescent Multifactor Emotional Intelligence Scale (AMEIS, Mayer, Salovey, & Caruso, unpublished), with number of behavioral symptoms of Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD), as assessed by the DICA-R. Fifteen students (9 males, 6 females) aged 13 to 17 years participated in this study. The number of CD symptoms exhibited by the students ranged from 0 to 10, while the number of ODD symptoms exhibited ranged from 0 to 6. It was hypothesized that number of behavioral symptoms would be negatively correlated with the four Branch scores (e.g., Identifying Emotions, Using Emotions, Understanding Emotions, and Managing Emotions) and the Total score of the AMEIS. Statistical analyses indicated that all correlations ran in the predicted direction and, with the exception of Branches 2 (Using Emotions) and 3 (Understanding Emotions), the correlations represented medium to large effect sizes. Although support was not provided for the hypothesis regarding the Using Emotions Branch; the correlations of number of behavioral symptoms with Branch 3 represented small to moderate effect sizes. Further, the correlation of number of behavioral symptoms with Branch 1 (Identifying Emotions) was statistically significant at the $p <$

.05 level. Additional analyses indicated that older adolescents tended to obtain higher scores on the AMEIS, with girls scoring higher than boys. Theoretical and treatment implications are discussed.

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degree. It has been a long road, and I do believe that my husband may in fact be even happier than I, now that the end has been reached. However, the end of this project is, in fact, only the beginning of future challenges and endeavors to which we will all look forward to.

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CHAPTER I

Introduction

According to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1994), disruptive behavior disorders of childhood include Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), and Disruptive Behavior Disorder Not Otherwise Specified (DBD-NOS). Behavior disorders are the most common reason for referrals to psychiatrists; in fact, some studies have shown that children with these disorders account for at least 66% of all referrals to mental health professionals (Egan, 1991). Children who exhibit behavioral problems are often described as emotionally disturbed or emotionally disordered; however, there exists very little research on the emotional development of these children. Despite this current lack of research, investigators underscore the importance of delineating what may be atypical emotional development in children with disruptive behavior disorders and other forms of psychopathology (e.g., Brown, 1993; Casey, 1996; Casey & Schlosser, 1994; Izard & Harris, 1995; National Advisory Mental Health Council, 1995).

The purpose of this study is to examine the relationship between emotional intelligence and disruptive behaviors such as those typically associated with Conduct Disorder and Oppositional Defiant Disorder. This chapter will provide a discussion of CD and ODD in terms of the DSM-IV diagnostic criteria, prevalence rates, correlates or associated features, course, and prognosis of the disorders. Information regarding DBD-NOS will also be provided. In Chapter II, a review of the existing literature in terms of how the emotional development or intelligence of children with disruptive behavior disorders compares to that of normally developing children will be provided. In addition,

a model of emotional intelligence that delineates typical emotional development will be discussed. Chapter III delineates the methodological procedures of the study as well as a description of the assessment measures utilized. The statistical analyses and results are presented in Chapter IV and finally, Chapter V provides a discussion of the results along with theoretical and treatment considerations.

Conduct Disorder

DSM-IV Diagnostic Criteria

The defining characteristic of CD is the presence of a persistent pattern of behavior that violates important age-appropriate societal norms and the basic rights of others. There are four categories into which these behaviors fall: aggression toward people and animals, property destruction, deceitfulness or theft, and serious rule violations (DSM-IV, APA, 1994). Children and adolescents with CD frequently initiate and react in an aggressive manner toward others. Such behavior includes threatening or intimidating others, initiating physical fights, cruelty toward people and animals, and the use of weapons. The physical violence associated with this disorder may take the form of stealing while confronting the victim (e.g., mugging, armed robbery), forced sexual activity (e.g., rape), assault, or even homicide (DSM-IV, APA, 1994).

Examples of property destruction include fire setting and vandalism with the intention of causing damage. Under the category of deceitfulness or theft, behaviors typically evidenced by children and adolescents with CD include shoplifting, conning others, and breaking into homes or cars. Finally, truancy, running away from home, and staying out at night despite parental prohibitions are examples of serious rule violations often evidenced by children and adolescents with conduct problems (DSM-IV, APA, 1994).

Truant behavior often begins prior to age 13, as does staying out at night. For running away to be considered a symptom of CD, this behavior must have occurred at least twice or only once if the youth did not return home for a long period of time. Running away in response to physical or sexual abuse is not considered a symptom of CD (DSM-IV, APA, 1994).

For a diagnosis of Conduct Disorder to be made, three or more of the diagnostic criteria must have been present during the last twelve months, and one criterion must have been present during the last six months. It should be noted that the pattern of conduct disordered behavior is typically evident in numerous settings (e.g., home, school, community). In addition, the manifestation of this behavior must cause significant impairment in social, academic, or occupational functioning. Conduct Disorder symptoms may be classified as mild, moderate, or severe (DSM-IV, APA, 1994). Appendix A presents the DSM-IV diagnostic criteria for Conduct Disorder.

Subtypes of CD

There are two subtypes of CD: Childhood-Onset Type and Adolescent-Onset Type. CD with childhood onset is characterized by the presence of at least one criterion prior to the age of ten. This type of CD is usually associated with males, who are frequently aggressive toward others and who evidence disturbed peer relationships. In addition, these individuals often displayed symptoms of Oppositional Defiant Disorder during early childhood and are more likely to develop Antisocial Personality Disorder in adulthood than those children with Adolescent-Onset Type CD (DSM-IV, APA, 1994). CD with adolescent onset is characterized by the absence of conduct disorder symptoms prior to the age of ten. Individuals with this type of CD are less likely to display physical

aggression and generally have more normalized peer relations, although they often demonstrate conduct problems in the company of peers (DSM-IV, APA, 1994).

Prevalence

The generally accepted prevalence estimate for CD is 6% to 16% for school-aged males and 2% to 9% for school-aged females (DSM-IV, APA, 1994). In an epidemiological study of childhood and adolescent disorders, Cohen et al. (1993) found prevalence rates of CD to be 3.8% for girls and 16% for boys in the 10-13 year age group, 9.2% for girls and 15.8% for boys in the 14-16 year age group, and 7.1% for girls and 9.5% for boys in the 17-20 year age group. Conduct Disorder affects a great number of children and adolescents. In fact, it appears that the prevalence of CD has increased from several decades ago, making CD one of the most frequent mental health problems for children (DSM-IV, APA, 1994).

Correlates and Associated Features

Associated features or correlates of CD can be broadly identified in terms of individual, parent and family, and contextual characteristics, all of which have important implications for the improved understanding of the disorder. In terms of individual features, children with CD are likely to evidence poor interpersonal relationships and deficits in social skills. They tend to be rejected by their peers and display difficulty interacting appropriately with adults (Kazdin, 1995). These children can generally be characterized as lacking empathy and concern for the feelings or well-being of others. As well, they tend to lack appropriate feeling of guilt or remorse for wrongdoing. In fact, individuals with CD tend to misperceive others' intentions, frequently attributing hostile intentions to the behavior of others and then responding with aggression that they believe

is justified. These individuals also evidence low self-esteem and frustration tolerance, as well as irritability, temper tantrums, and reckless behavior (DSM-IV, APA, 1994; Kazdin, 1995). Further, the early onset of drinking, smoking, illegal drug use, and sexual behavior is frequently associated with CD. In fact, the use of illegal drugs is associated with the persistence of CD (DSM-IV, APA, 1994). CD may be associated with a lower than normal intelligence and tends to be associated with academic deficits, especially in verbal skills and reading (DSM-IV, APA, 1994; Kazdin, 1995). Other disorders that tend to be associated with CD include Attention-Deficit Hyperactivity Disorder (ADHD), Learning Disorders, Anxiety Disorders, Mood Disorders, and Substance-Related Disorders. It should also be noted that suicidal ideation, suicide attempts, and completed suicide occur at a higher rate than in individuals without the disorder (DSM-IV, APA, 1994).

Parent and family characteristics associated with CD include parent psychopathology and maladjustment, criminal behavior, and alcoholism. In addition, certain maladaptive disciplinary practices, such as overly harsh, lax, or inconsistent discipline, are associated with conduct disorder. Dysfunctional family relations are also associated with CD, as evidenced by less acceptance of the children, parental rejection and neglect, physical or sexual abuse, maladaptive communications between family members, and an overtly aggressive and discordant parental relationship (DSM-IV, APA, 1994; Kazdin, 1995).

Contextual conditions include a large family size, poor housing, poor parental supervision, high crime neighborhoods, disadvantaged school settings, and association with deviant peer groups (DSM-IV, APA, 1994; Kazdin, 1995).

Course and Prognosis

The onset of CD typically occurs in late childhood or early adolescence. Onset is rare after the age of 16, but this disorder may occur as early as age 5-6 years (DSM-IV, APA, 1994). The symptoms of CD tend to vary with age, with the less severe behaviors such as lying, shoplifting, and physical fights being the first to emerge. The severity of the symptoms typically increases as the individual ages and the disorder progresses. Usually the most severe behaviors such as stealing while confronting the victim, rape, and assault are among the last to emerge. However, it must be noted that this progression is typical, not prescripted, and that there exists a wide variation in terms of individual development of CD (DSM-IV, APA, 1994).

The long-term prognosis of children diagnosed with CD is generally poor, as these children continue to evidence a pattern of social dysfunction, problem behavior, poor school adjustment, and poor occupational adjustment in adulthood. It has been found that 84% of children diagnosed with CD also receive a psychiatric diagnosis in adulthood, including Antisocial Personality Disorder, Substance-Related Disorders, and Mood or Anxiety Disorders (DSM-IV, APA, 1994; Kazdin, 1995; Routh & Daugherty, 1992). In addition, these children often continue to evidence criminal behavior in adulthood (Kazdin, 1989, 1995; Routh & Daugherty, 1992). The prognosis is poorest in early onset CD, and illegal drug use is associated with the persistence of CD (DSM-IV, APA, 1994).

Treatment for CD typically includes some form of behavior or cognitive-behavior therapy such as cognitive problem-solving skills training, parent management training, social-cognitive interventions, family therapy, and peer and school based interventions (Dykeman, 1995; Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993; Kazdin,

1995; Nangle, Carr-Nangle, & Hansen, 1994; Offord & Bennett, 1994; Webster-Stratton, 1994). Although research has shown that treatment can be somewhat effective in ameliorating the symptoms of CD, treatment has several limitations, including the fact that, while improvements in behavior occur, often aggressive and antisocial behaviors are not brought within normative levels. In addition, improved behaviors frequently do not generalize outside the treatment setting, nor are they maintained over time (Kazdin, 1995; Nangle et al., 1994; Routh & Daugherty, 1992; Vitiello & Jensen, 1995).

It is important to note that CD is not only stable within individuals, but also within families. It has been found that conduct problems and antisocial behavior tend to run in families. The presence of antisocial behaviors in grandparents predicts the presence of conduct problems in their grandchildren. As well, the level of aggressive behavior in boys is predicted by the level of aggressive behavior in their fathers at the same age (Kazdin, 1989, 1995). CD represents a major cost to society, both in terms of the financial costs accrued due to the continued contact of individuals with CD with mental health and criminal justice systems and in terms of the emotional and physical suffering of victims of individuals with CD (Kazdin, 1989, 1995).

Oppositional Defiant Disorder

DSM-IV Diagnostic Criteria

The defining characteristic of ODD is the presence of a persistent pattern of behavior that encompasses disobedient, negativistic, hostile, and defiant behaviors toward figures of authority. For an individual to be diagnosed as exhibiting ODD, these behaviors must continue for at least six months and occur at a higher intensity and a rate more frequent than what is typical given one's age and developmental level. In addition, these

behaviors must result in significantly impaired academic, social, or occupational functioning for the individual (DSM-IV, APA, 1994). The following behaviors are listed by the DSM-IV (APA, 1994) as diagnostic criteria for ODD: losing one's temper, arguing with adults, actively refusing to comply with or defying the rules and requests of adults, intentionally doing things that will annoy others, blaming others for one's own misbehavior or mistakes, being easily annoyed by others, being resentful or angry, and being vindictive or spiteful.

The defiant and negativistic behaviors associated with ODD include resistance to following directions, unrelenting stubbornness, and an unwillingness to negotiate or compromise with peers and adults (DSM-IV, APA, 1994). Other behaviors indicative of the defiance associated with ODD include the deliberate and constant testing of limits, ignoring orders, argumentative behavior, and the failure to accept responsibility for one's misbehavior (DSM-IV, APA, 1994). The hostility that is associated with ODD is expressed by intentionally annoying others and by verbal aggression. This hostility can be directed at both peers and adults. It should be noted that the serious physical aggression associated with CD is generally not observed in ODD (DSM-IV, APA, 1994).

For a diagnosis of ODD to be made, at least four of the diagnostic criteria must have been present and occurring with frequency during the last six months (DSM-IV, APA, 1994). ODD generally manifests itself prior to age eight and not any later than early adolescence. The symptoms generally first become apparent in the home setting; however, as time progresses, they may appear in other settings (e.g., school, community) as well. It is unusual for symptoms of ODD to be present in just the school or community setting and not the home setting; although, in milder forms of ODD it is

likely that symptoms may be present only in the home environment (DSM-IV, APA, 1994). With more severe forms of ODD, oppositional and defiant behaviors are exhibited toward authority figures other than the parents, such as teachers and principals. Even in its milder form, the symptoms of ODD may include passive-aggressive and uncooperative behavior in school (Vitiello & Jensen, 1995). The onset of ODD is usually gradual and may arise over the course of months or even years (DSM-IV, APA, 1994). Appendix B presents the DSM-IV diagnostic criteria for Oppositional Defiant Disorder.

Prevalence

The prevalence estimate for ODD is 2% to 16% depending on the sample population and the method of assessment (DSM-IV, APA, 1994). The prevalence rate of ODD is higher for boys than for girls prior to adolescence, but the rates equalize for boys and girls during adolescence (DSM-IV, APA, 1994; Vitiello & Jensen, 1995). In an epidemiological study of childhood and adolescent disorders, Cohen et al. (1993) found prevalence rates of ODD to be 10.4% for girls and 14.2% for boys in the 10-13 year age group, 15.6% for girls and 15.4% for boys in the 14-16 year age group, and 12.5% for girls and 12.2% for boys in the 17-20 year age group.

Correlates and Associated Features

As with CD, associated features or correlates of ODD can be broadly identified in terms of individual, parent and family, and contextual characteristics, all of which have important implications for the understanding of the disorder. In terms of individual features, children with ODD are likely to have evidenced problematic temperaments (e.g., high reactivity, difficulty being soothed, high motor activity) from as early as the first year of life (DSM-IV, APA, 1994; Vitiello & Jensen, 1995). During the school-age

years, children with ODD may evidence mood lability, low self-esteem, low frustration tolerance, and conflictual interpersonal relationships with parents, teachers, and peers. In addition, these children may engage in swearing and the "precocious use of alcohol, tobacco, or illicit drugs" (DSM-IV, APA, 1994, p. 92). Individuals with ODD tend not to consider themselves as oppositional or defiant. They characteristically demonstrate very little insight into their own behavior and tend to blame others and external circumstances for their own behavior that they feel is justified due to their perceptions that they are being treated in an unreasonable or unfair manner (DSM-IV, APA, 1994; Vitiello & Jensen, 1995). As with CD, it appears that children with ODD exhibit deficits and distortions in socio-cognitive information-processing, such as the tendency to misperceive others' intentions in ambiguous social situations, attribute hostile intentions to others in these situations, and not utilize available social cues when making decisions regarding behavior in interpersonal transactions (Hinshaw & Anderson, 1996). Finally, other disorders that tend to be associated with ODD include ADHD, Learning Disorders, and Communication Disorders (DSM-IV, APA, 1994).

In terms of parent and family characteristics, ODD is more common in families in which at least one parent has a history of a disruptive behavior disorder (e.g., CD, ODD, ADHD), mood disorders, substance-related disorders, or Antisocial Personality Disorder (DSM-IV, APA, 1994; Vitiello & Jensen, 1995). As with CD, certain maladaptive disciplinary practices, such as overly harsh, lax, or inconsistent discipline, are associated with ODD (DSM-IV, APA, 1994; Vitiello & Jensen, 1995). It appears also that ODD is more likely to occur in families in which the child is exposed to numerous different caregivers, especially when discipline practices in this situation are maladaptive (DSM-

IV, APA, 1994). Finally, ODD is more common in families in which there are serious marital conflicts (DSM-IV, APA, 1994; Vitiello & Jensen, 1995). It should be noted that while the evidence suggests that ODD and CD have similar parent and family characteristic correlates, the difference between them is that CD appears to be associated with more severe parental psychopathology and family dysfunction than ODD. In addition, children who develop CD appear to experience a higher number of these correlates simultaneously than do children with ODD (Loeber, Lahey, & Thomas, 1991).

Contextual conditions include maternal social isolation, families headed by single mothers, poor parental supervision (Barkley, Edwards, & Robin, 1999), and low socio-economic status (Barkley et al., 1999; Vitiello & Jensen. 1995). Hinshaw and Anderson (1996) cite economic and community level factors as correlates for ODD as well (e.g., poverty, high crime neighborhoods, family crowding, deviant peer groups).

Course and Prognosis

ODD typically begins during the preschool years, and there may even have been signs and symptoms of the disorder as early as the first year of life. Symptoms that typically emerge first are disobedience and temper tantrums, which are then followed by argumentative and uncooperative behavior, and then defiance (Vitiello & Jensen, 1995). Evidence exists that ODD in early childhood is a developmental precursor to CD in late childhood or early adolescence in a significant number of cases (DSM-IV, APA, 1994; Hinshaw & Anderson, 1996; Vitiello & Jensen, 1995); however, the majority of children diagnosed with ODD do not develop CD (Hinshaw & Anderson, 1996; Vitiello & Jensen, 1995). Characteristics of ODD that are more predictive of the development of CD

include the severity of the symptoms and the presence of aggression (Vitiello & Jensen, 1995).

It has been found that more than 90% of individuals diagnosed with CD have previously met diagnostic criteria for ODD (Hinshaw & Anderson, 1996). In a three-year longitudinal study, Lahey, Loeber, Quay, Frick, and Grimm (1992) found that one quarter of the boys studied with ODD were diagnosed with CD at the three year follow-up. As well, one half of boys diagnosed with ODD at the start of the study continued to meet criteria for ODD but did not meet criteria for CD. Finally, one quarter of the originally diagnosed ODD boys no longer met criteria for ODD (Lahey et al., 1992). Lahey et al. (1992) also found that CD is almost always preceded by ODD, but only a minority of individuals with ODD will go on to develop CD. In terms of the long-term prognosis for children with ODD, approximately 10% of individuals diagnosed with ODD in childhood will be diagnosed with Antisocial Personality Disorder in adulthood, and those who are diagnosed with Antisocial Personality Disorder in adulthood will have almost universally been diagnosed with or displayed symptomology of CD along the way (Hinshaw & Anderson, 1996).

It appears that the long-term prognosis of children diagnosed with ODD is better than that of children diagnosed with CD. This appears to be due, in part, to the more positive treatment outcomes associated with ODD as compared to CD, especially if treatment is initiated at an early stage of the disorder. In addition, the lesser severity and greater malleability of ODD symptoms may contribute to a more positive outcome (Loeber et al., 1991). However, longitudinal studies indicate that a significant percentage of children diagnosed with ODD continue to evidence either ODD or CD symptomology at follow-

up (Lahey et al., 1992). As well, the school drop-out rate for ODD is almost 30% a year (Vitiello & Jensen, 1995). This is significant because school failure is a correlate associated with poorer adult outcome for both CD and ODD (Atkins, McKay, Talbott, & Arvanitis, 1996). Although there is a lack of longitudinal studies on the course of ODD into adulthood (Vitiello & Jensen, 1995), it should be noted that approximately 10% of children diagnosed with ODD will be diagnosed with Antisocial Personality Disorder in adulthood (Hinshaw & Anderson, 1996).

Disruptive Behavior Disorder Not Otherwise Specified

According to the DSM-IV (APA, 1994), the category of Disruptive Behavior Disorder Not Otherwise Specified is considered one of the disruptive behavior disorders of childhood. Although no specific symptomology is provided, the DSM-IV (APA, 1994) states that DBD-NOS is distinguished by behavioral symptoms of Conduct Disorder and/or Oppositional Defiant Disorder that do not meet full criteria for either disorder. In addition, clinically significant impairment must be evident.

CHAPTER II

Rationale for the Examination of Emotional Development in Children with Disruptive Behavior Disorders

As stated previously, researchers are becoming more and more interested in examining the emotional development of children with disruptive behavior disorders. Traditionally, the etiology and course of disruptive behavior disorders have been conceptualized in terms of socialization processes (e.g., parenting practices, peer groups) and child characteristics such as temperament and intellectual functioning (Cole, Zahn-Waxler, & Smith, 1994; Kazdin, 1995); however, the emotional development of these children has not been extensively studied. Nevertheless, clinical observations of the expression of emotion as well as theoretical work associating psychopathology with the process of emotional development imply that emotion plays an important role in the psychopathology of childhood (Casey, 1996; National Advisory Mental Health Council, 1995). In fact, according to the DSM-IV (APA, 1994), the associated features of CD include a lack of empathy and concern for the emotional and physical well-being of others, as well as a lack of appropriate feelings of guilt and remorse. In addition, ODD is characterized by excessive anger.

According to Izard and Harris (1995), the role of emotions must be taken into consideration in order to explain and provide an understanding of the symptoms, etiology, and course of various psychological disorders. Hesse and Cicchetti (1982) and Izard and Malatesta (1987), as cited by Izard and Harris (1995), state that there is evidence for a separate emotional developmental system. Finally, Izard and Harris

(1995) cite evidence for the motivational function of emotions that implies that emotions are implicated in the explanation of the causes of both normal and abnormal behavior.

Emotional Development

Definitions of Emotional Development

Emotional development can be conceptualized as the gradual process of acquiring skills and competencies associated with emotional expression, emotional appraisal, and emotional regulation. Mature development indicates competent functioning in these areas that allows one to interact with others, solve problems, and essentially function in society in a competent manner. Typical emotional development is a gradual process that commences in infancy and continues through adulthood (Berk, 1994; Brown, 1993; Mayer & Salovey, 1997; Saarni, 1999). Although different investigators tend to utilize different terminology, such as emotional competence (e.g., Saarni, 1999) and emotional intelligence (e.g., Mayer & Salovey, 1997), a review of the literature suggests that these terms are intrinsically related and that it is the successful process of emotional development that results in an emotionally competent, or intelligent, individual (Berk, 1994; Brown, 1993; Mayer & Salovey, 1997; Saarni, 1999).

Mayer and Salovey (1997) define emotional intelligence as "…the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p.10). Saarni (1999) defines emotional competence as demonstrating resilience and self-efficacy during emotion-eliciting situations, which are almost always social in nature, while behaving in a manner commensurate with societal expectations. The results of the

development of emotional competence are "the ability to manage one's emotions, …enhanced self-esteem, and adaptive resilience in the face of stressful circumstances" (Saarni, 1999, p. 5-6).

Different researchers have conceptualized the development of emotional competence or intelligence in different ways. For example, Saarni (1990), as cited in Casey (1996), conceptualizes emotional development in terms of emotional expression, emotional appraisal or understanding, and emotional regulation. More recently, Saarni (1999) expanded her conception of emotional competence to include eight skills of emotional competence including awareness of one's own emotional state, awareness of the emotional states of others, ability to utilize the language associated with emotion, the ability to experience empathy and sympathy, the realization that one's inner emotional state need not correspond to one's outer expression, the ability to utilize self-regulatory strategies in order to cope with intense emotion, the knowledge that emotionality is important in social relationships, and the ability to accept one's own emotionality and to be emotionally self-efficacious. However, it appears that Saarni's (1999) more recent conceptualization of emotional competence splits the broader concepts of emotional expression, emotional appraisal or understanding, and emotional regulation into more specific competencies. Mayer, Salovey, and Caruso (2000) and Mayer and Salovey (1997) discuss emotional intelligence in terms of four broad areas, each associated with its own set of abilities and skills. These areas include the ability to identify emotions in the self and others, the ability to use and assimilate emotions, the ability to understand and analyze emotions, and the ability to manage or regulate one's own and others' emotional states.

In summary, although different researchers conceptualize emotional competence in a variety of ways, a review of the literature suggests that the various competencies associated with emotional development can be broadly conceptualized as falling into three domains: emotional expression, emotional appraisal or understanding, and emotional regulation. Competency in emotional expression is demonstrated by culturally and socially appropriate use of facial expression, vocal qualities that signify emotion, and nonverbal behavior that signifies emotions, such as gestures and posture. Competency in emotional appraisal is demonstrated by the ability to recognize and understand both nonverbal expression and internal experience of emotions in oneself and others. Competent emotional appraisal is also signified by the ability to accurately assess emotional aspects of social situations. Finally, competence in emotional regulation includes the ability to manage one's own internal emotional states as well as the ability to manage the expression of emotion in oneself and others (Saarni, 1990, as cited in Casey, 1996).

It should be noted that these competencies develop in both a hierarchical and lateral fashion. The development of emotional regulation is considered to be a more complex process than the development of emotional expression and understanding, thus children may acquire skills in the areas of expression and understanding prior to the acquisition of certain emotional regulation skills. At the same time, these competencies may develop laterally such that the expression, understanding, and regulation of simpler emotions may develop prior to that of more complex emotions (Casey, 1996). Researchers want to be able to separate the skills of emotional competence for discussion and analytical purposes; however, it must be born in mind that these skills are interrelated and develop

in an interactive manner. It may be difficult to fully separate skills; that is, the analysis of one particular skill or competency may necessitate a simultaneous discussion of another (Saarni, 1999). As well, it should be noted that emotional development occurs simultaneously with, and is intertwined with, the development of social and cognitive competencies and the development of self-concept (Berk, 1994; Cummings, Braungart-Rieker, & Du Rocher-Schudlich, 2003; Jones & Thomas, 1992; Saarni, 1999).

Normal or Typical Emotional Development

As stated previously, normal or typical emotional development can be explained in terms of three different but interrelated areas of functioning; emotional expression, emotional appraisal or understanding, and emotional regulation, with each area of functioning associated with its own set of competencies (Saarni, 1990, as cited in Casey, 1996).

Emotional expression. Almost from birth the primary emotions, which are the emotions that can be directly inferred from facial expressions, are evident. These emotions include happiness, interest, surprise, fear, anger, sadness, and disgust, which, with age, become more and more recognizable. Between the ages of 6-10 weeks, social smiles appear and between the ages of 3-4 months, laughter appears (Berk, 1994; Jones & Thomas, 1992). By approximately six months, infants' expressions of happiness become more selective; that is, these expressions are greater during interactions with familiar others. Between the ages of 7-12 months, facial displays of anger, fear, and sadness increase. It is at this stage that stranger anxiety, which is the most common expression of fear, emerges (Berk, 1994). It should be noted that, although infants less than one year old are able to appropriately demonstrate emotional responses in reaction to others'

positive or negative expressive behavior, it is not clear that infants of this age know what they are feeling. An awareness of one's own emotional actions and responses requires a more developed sense of self that has not occurred during infancy (Saarni, 1999).

It is by the end of the second year that the self-conscious emotions begin to emerge. The emergence of the higher order emotions of shame, embarrassment, guilt, envy, and pride depends on the toddler having a sense of self as separate from others (Berk, 1994; Cummings et al., 2003). These higher order emotions are termed "self-conscious" because they involve either enhancement of or harm to one's sense of self and depend on judgments of self-worth. However, at this stage, the display of the self-conscious emotions depends on the presence of others. In addition, by age three, children have begun to acquire emotional display rules that specify when, where, and how it is socially and culturally appropriate to display one's emotions. It is during these preschool years that children begin to conform to cultural rules dictating emotional display (Berk, 1994).

Between the ages of 7-11 years, children begin to take personal responsibility for the expression of the self-conscious emotions as these emotions become integrated with inner, moral standards. Thus, the expression of these emotions is no longer dependent on the presence of others (Berk, 1994). For example, in children aged 5-8 years (early childhood), embarrassment appears to be connected to the negative appraisal of others rather than to intrinsic or internal sources (Cummings et al., 2003; Denham, 1998); however, children between the ages of 7-11 years can feel and express guilt regardless of whether others are aware of their transgressions. In addition, it is during this age range that children's awareness of and ability to conform to rules dictating emotional display improve (Berk, 1994; Cummings et al., 2003). For example, they become increasingly

adept at concealing negative affect, which is one of the emotional display rules dictated by this society (Berk, 1994).

Emotional appraisal. The ability to discriminate between varying emotional states has been demonstrated in very young infants. In face-to-face communication, infants will match the affective tone of their caregivers. Between the ages of 7-12 months, infants are capable of meaningfully interpreting the emotional responses of others (Berk, 1994; Saarni, 1999). During their first year of life infants are developing the ability to discern others' emotional states based on vocal intonation, facial expression, and other behaviors (Thompson, Easterbrooks, & Padilla-Walker, 2003). In addition, it is during this stage that social referencing, or the reliance on the emotional responses of others in order to assess ambiguous situations, develops (Berk, 1994; Saarni, 1999; Thompson et al., 2003). Social referencing is an important component of emotional development because it indicates awareness of the emotional states of others and the ability to use this information to mediate one's own emotional responses to events (Thompson et al., 2003). Between the ages of 1-2 years, toddlers begin to develop a vocabulary for talking about emotions (Berk, 1994; Saarni, 1999). By approximately 3 years of age, as the ability to talk about emotions develops and becomes more complex, so does the child's ability to interpret the emotional states of others based on their facial expressions and tone of voice (Jones & Thomas, 1992). In addition, 2- and 3-year-old children demonstrate an understanding that their emotional responses are linked to what they want and don't want (Saarni, 1999).

Empathy is an extremely important aspect of emotional competence in terms of developing social relationships and promoting prosocial behavior. One can be adept at

utilizing the other skills of emotional competence, yet lacking empathy, these skills could be used in a manipulative and sociopathic manner (Saarni, 1999). Although the development of empathy is a complex process that involves the interaction of cognition and affect, the ability to identify and differentiate among various emotions, the understanding of the self as separate from others, and the ability to understand the perspective of others, it has been found that children as young as one year are capable of simple empathic responses (Berk, 1994; Saarni, 1999). By 18 months, children exhibit comforting behaviors toward people with whom they have a close relationship, especially family members. Between the ages of two and three, other prosocial behaviors such as sharing and helping begin to develop (Saarni, 1999). By age 3 years, preschoolers' interest in the feelings of others becomes more solidified and at the same time, their ability to experience empathy becomes more complex (Jones & Thomas, 1992). Between the ages of 3-6 years, children become more proficient in their ability to understand the causes, consequences, and behavioral manifestations of emotions. It is during this stage that empathy continues to develop and becomes an important source of motivation for prosocial behavior. During the elementary school years, empathic responding continues to increase as children's emotional appraisal and understanding improves (Berk, 1994). By age 7, children demonstrate an improved ability for perspective-taking and are beginning to become more sensitive to the emotional states of their peers. At this age, children are beginning to develop ethical standards of right and wrong and a sense of fairness. These developing ethical standards, coupled with the capacity for empathy, continue to guide children's behavior, as children in the early elementary school years

typically want to behave in what they consider to be the correct manner (Jones & Thomas, 1992).

Between the ages of 7-11 years, children begin to demonstrate awareness that people can experience more than one emotion at a time, and that these emotions may even be conflictual (Berk, 1994; Saarni, 1999). In some children this ability may develop as early as 5 or 6 years of age (Saarni, 1999). In addition, it is during this age that children's ability to explain emotional states from more than one perspective emerges (Berk, 1994).

During late middle childhood (e.g., 9-12 years), the ability to make social comparisons, social inferences, and to solve social problems continues and becomes increasingly complex. As well, there is an increased awareness of and development of one's own moral belief system (Jones & Thomas, 1992). The enhanced ability to make social comparisons and social inferences results in an improved understanding of social relationships. In addition, the meta-cognitive skills necessary to analyze social situations, with their surrounding emotional components, and to determine an appropriate course of action are increasing in complexity. This coupled with an increased awareness of the social consequences of behavior and moral codes of conduct results in a significantly improved ability to solve social problems (Jones & Thomas, 1992).

By middle childhood, children understand that their appraisal of a situation is important in determining how they will feel about something and that others may appraise a situation differently and thus experience different feeling regarding that same situation. In fact, even 4- and 5-year-old children understand that their beliefs and expectations regarding a situation are important in determining how they will feel in the situation (Saarni, 1999). By middle childhood, children also have a sense that emotion

can vary in intensity and duration and that, in the wake of a highly charged emotional event, as time passes, the intensity of one's feeling, whether positive or negative, will diminish (Saarni, 1999).

There are numerous cognitive changes that occur from late middle childhood through adolescence that enable the adolescent to engage in increasingly complex perspective taking on issues such as morality and social relations and to identify with society as a whole. These cognitive changes include improved ability for abstract thought and reasoning, logical reasoning, and the ability to hypothesize (Jones & Thomas, 1992). Unfortunately, there is not much research in the area of empathy that pertains to preadolescents and adolescents (Saarni, 1999).

Emotional regulation. Emotional self-regulation refers to the ability to regulate or control one's emotional state such that a comfortable intensity level is maintained so as to allow for productive and goal-directed engagement with one's environment (Berk, 1994; Saarni, 1999; Thompson et al., 2003; Tronick, 1989).

There are numerous skills necessary for the effective and competent regulation of emotion, including the ability to respond to the demands of different situations, flexibility (Cole, Michel, & Teti, 1994; Galambos & Costigan, 2003; Thompson, 1994), an awareness of one's own and others' emotional states, knowledge of cultural and societal display rules, and the ability for empathy (Galambos & Costigan, 2003; Saarni, 1990; Underwood, 1997). In infants and young children, the skills of emotional regulation require external support, such as when parents help children talk about and label their emotions, model effective emotional regulation, and reinforce adaptive and appropriate displays of emotion in their children (Calkins, 1994; Galambos & Costigan, 2003;

Thompson, 1994). Although infants younger than six months must rely heavily on the external support of caregivers in order to regulate their emotional states, these infants do have several coping strategies available to them in order to self-regulate, including looking away, self-comforting, and self-stimulation (Berk, 1994; Saarni, 1999; Thompson et al., 2003; Tronick, 1989). Between the ages of 7-12 months, infants' ability for self-regulation of emotion improves with the concurrent development of crawling and walking skills that allow the infant more control over approaching and withdrawing from stimuli. In addition, the use of social referencing has been interpreted as a means for infants to utilize adults to aid them in the regulation of their emotional experiences (Berk, 1994; National Advisory Mental Health Council, 1995; Saarni, 1999; Thompson et al., 2003). Factors that are important in the early stages of emotional regulation development include the development of the capacity for imitation, parental affection, and the parental creation of an environment in which the emotional and physical needs of the infant are met (Jones & Thomas, 1992; Thompson et al., 2003).

During the toddler years, children typically exhibit difficulty controlling their emotions as evidenced by the temper tantrums and low frustration tolerance characteristic of this age group (Jones & Thomas, 1992). However, during the preschool years, children begin to develop various behavioral and cognitive strategies for the self-regulation of emotion. For example, children frequently cover their eyes in order to block out scary stimuli (Berk, 1994). In addition, children of this age have developed some ability to tolerate frustration (Jones & Thomas, 1992). Continued development coupled with the influence of socialization leads to the increased use of internal strategies

to regulate their emotions (Calkins, 1994; Galambos & Costigan, 2003; Thompson, 1994).

Throughout the elementary school years, children begin to use an increasing variety of strategies in order to regulate their emotional and behavioral states. In addition, these strategies become more cognitive in nature and are adjusted to meet situational demands (Berk, 1994). Between the ages of 6 and 8 years, children demonstrate an improved ability to regulate their emotions and control their behavior. This improvement stems from advances in cognitive development that are increased attention span, improved ability to think in a more logical manner, and the improved ability to attend to more than one aspect of a situation (Jones & Thomas, 1992).

It is during this time that children's development of the understanding of societal display rules and their knowledge regarding how to use them begins to solidify. Display rules are societally or culturally dictated rules or customs for how one appropriately expresses one's feelings. In order to conform to display rules, one must have the ability to regulate one's emotions and emotional responses (Saarni, 1999). Children, aged 6 and under, are not always capable of regulating their emotional responses to conform to culturally dictated rules of expression. For example, children in this age range will often demonstrate negative affect upon the receipt of a gift that they do not like (Saarni, 1999). By age 8 or 9 years, given the same situation, children will not generally display negative affect; however, nor will they always display positive affect. At this age, anxious behavior is frequently exhibited in situations that require children to respond emotionally in a manner that contradicts or is not in keeping with their internal emotional states (Saarni, 1999). By 10 or 11 years of age, most children are capable of demonstrating

positive affect when receiving a gift that is disliked. In fact, children in this age group often mask their true feelings in a variety of situations so as to not hurt another's feelings (Saarni, 1999).

Between the ages of 9 and 12 years, advances in competencies associated with emotional appraisal; that is, the ability to make social inferences and social comparisons, result in an improved understanding of social relationships, which, in turn, leads to an improved ability to appropriately regulate one's emotional and behavioral responses in a variety of situations (Jones & Thomas, 1992). Further, it is during this age range that children's understanding of societal expectations; that is, rules regarding fairness and the rights of others, societal regulations against physically or psychologically harming others, and societal expectations that one behave in a pro-social manner truly begin to solidify. As well, there is an improved understanding that, while some behaviors may never be appropriate, the appropriateness of most emotional and behavioral actions varies according to the situation (Jones & Thomas, 1992). Development in this area during this age range results in an improved ability to get along with others, regulate one's emotions and behavior in order to conform to societal norms and moral codes of conduct, and adapt one's behavior according to what is considered appropriate in a given social situation (Jones & Thomas, 1992; Saarni, 1999).

Although young children experience a wide range of emotions, they are not able to consistently control their emotional and behavioral responses. Between the ages of 9-12 years, there emerges an enhanced ability to understand and analyze one's own emotional states and characteristics that leads to an improved ability to control one's emotions and emotional behavior, especially negative emotions such as anger and frustration and their

accompanying behavioral counterparts (Jones & Thomas, 1992). In fact, older children begin to view self-control as a positive personal characteristic. It is during these middle childhood years that shame and embarrassment emerge over the inability to control one's emotional and behavioral responses (Jones & Thomas, 1992). Children of elementary school age often mask their feelings of fear and hurt out of fear of embarrassment (Saarni, 1999).

During adolescence, the ability to appropriately regulate and adjust one's emotional and behavioral actions and responses further develops. This increased competence in emotional regulation stems from adolescents' improved cognitive skills that allow them to use more sophisticated strategies, such as taking another's point of view and reframing. In addition, adolescents have more control over their environment and are thus able to better structure their environments as a means of regulating their emotions (Galambos & Costigan, 2003; Gross & Munoz, 1995). The process surrounding this development includes evaluating and refining one's own moral belief system, incorporating societal expectations into one's own moral code, and assuming responsibility for one's attitudes, beliefs, and behaviors (Jones & Thomas, 1992).

Atypical Emotional Development in Children with Disruptive Behavior Disorders

Based on the review of the existing literature a comparison between normal emotional development and the emotional development of children with disruptive behavior disorders will be made in order to determine if children with disruptive behavior disorders are characterized by a particular pattern of emotional development. In keeping with the above discussion of typical emotional development, the following areas of functioning will be addressed: emotional expression, emotional appraisal or

understanding, and emotional regulation**.** In should be noted that the research in this area does not always differentiate between CD and ODD, but instead refers to children with disruptive behavior disorders. In order to maintain coherence with the research literature presented in this paper, children with disruptive behavior disorders are characterized by conduct disorder- and oppositional defiant disorder-like symptoms. These symptoms include, but are not limited to, physical and verbal aggression; destruction of property; deceitfulness or theft; serious violations of rules and defiance toward authority; and argumentative, angry, and spiteful behavior.

Emotional expression. Findings in this area indicate that, along the continuum of positive to negative situations, the emotional expression of children with disruptive behavior disorders becomes more and more similar to that of normal control children as the situation becomes more negative. The most significant difference in emotional expression occurs in positive situations. In their examination of emotional responses to peer praise among children aged 7-14 years, Casey and Schlosser (1994) found that children with disruptive behavior disorders typically displayed more negative, hostile, and surprised affect than normal control children. Goldman (1993, as cited by Buck, Goldman, Easton, & Smith, 1998) found that children with disruptive behavior disorders exhibit difficulty appropriately expressing the emotion they claim to be feeling. That is, others judged the expressive behavior of behaviorally disordered children as more negative (e.g., sad, afraid, angry) even when they claimed to be feeling more positive emotions (e.g., happiness). The emotional message that the behaviorally disordered children claimed to be sending out did not match what examiners witnessed.

Cole, Zahn-Waxler et al. (1994) examined the expressive control of preschoolers during a disappointment and noted the following findings: 1) boys at-risk for disruptive behavior disorders exhibited more negative emotion and for longer periods than did low-risk boys; 2) when compared with low-risk boys, more at-risk boys exhibited extreme anger; 3) when low-risk boys were not in the presence of the examiner, their negative emotions increased and equaled the intensity of the negative emotion displayed by at-risk boys regardless of the presence or absence of the examiner; and 4) the amount of joy expressed by at-risk boys was equal to that of low-risk boys. The researchers concluded that boys at-risk for disruptive behavior disorders have more difficulty than low-risk boys in maintaining expressive control and modulating their emotional state. Similar findings were noted by Bohnert, Crnic, and Lim (2003) in their examination of emotional competence and aggression in children aged 7-10 years. The authors found that when exposed to a disappointment paradigm (e.g., receiving a broken toy instead of a preferred toy for work completed) those children who were rated as more aggressive displayed more frequent and intense facial expressions of anger than their peers. Further, parental reports indicated that these children were generally less able to regulate their anger than their non-aggressive peers (Bohnert et al., 2003).

Casey and Murphy (1991) and Casey, Murphy, and Nelson (1993) as cited by Casey (1996) found no difference in the emotional expressiveness of children with disruptive behavior disorders and normal control children when exposed to simulated background anger. The simulated background anger situation consisted of a scripted role-play involving a child actor, a lab assistant posing as the child's mother, and an experimenter. The "actors" engaged in an angry argument in the presence of the study participants

while the participants were engaged in a building game. It was found that the negative affect of both groups increased significantly in response to the simulated anger. In the situation of background anger simulation, where negative affect is more likely to be socially and culturally accepted, these children most closely resembled their normal peers in terms of their emotional expression. In more positive social situations, children with ODD were found to display much less facial expression as compared to their normally functioning peers (Casey, Loge, Schatz, Whitmore, & Schumacher, 1991, as cited by Casey, 1996). It appears that children with disruptive behavior disorders have difficulty conforming to socially and culturally accepted emotional display rules, especially in more positive situations.

Emotional appraisal. The ability to identify and understand emotional states in oneself and others is one of the hallmarks of emotional appraisal. Children with disruptive behavior disorders are less accurate than their normal peers in their assessment of both others' and their own facial expressions in order to determine emotional states (Casey, 1996; Casey & Schlosser, 1994; Zabel, 1979). Zabel (1979) found that children with disruptive behavior disorders have difficulty labeling the primary emotions. Blair and Coles (2000) found that children aged 11-14 years who exhibited behavioral problems were less likely than their non-behaviorally disordered peers to be able to recognize sad and fearful expressions in others. Casey and Schlosser (1994) and studies cited by Casey (1996) (e.g., Casey et al., 1991; Casey & Murphy, 1991; Casey et al., 1993) found that children with disruptive behavior disorders, in a variety of situations, both positive and negative, tend to appraise the facial expression of others as showing

negative affect, while their normal peers tend to appraise facial expressions more accurately.

A study by Barth and Bastiani (1997) confirms these findings. Four- and five-year-old children were given photographs of peers' facial expressions to assess. Those children who tended to assess the facial expressions as negative regardless of the nature of the expression were found to have less satisfactory peer relations, were less accepted by peers, and were more often described as hostile-dependent than their counterparts who were more accurate in their appraisals. Finally, Casey and Schlosser (1994) found that children with disruptive behavior disorders demonstrate difficulty appraising their own facial expressions in positive social situations. Specifically, these children reported a positive response to peer compliments; however, they displayed hostile and surprised emotions.

The ability to talk about one's emotional states is another competency in the area of emotional appraisal. Goldman (1993, as cited by Buck et al., 1998) found that children with disruptive behavior disorders evidence difficulty recognizing when they are experiencing particular emotions or feelings and also have trouble accurately labeling their feelings. It has been found that children with disruptive behavior disorders exhibit difficulty discussing their own emotional experiences and explaining how they know what emotion they are experiencing (Casey & Schlosser, 1994; Cook, Greenberg, & Kusche, 1994). In addition to demonstrating difficulty understanding and explaining cues that are used to identify one's own emotions, children with disruptive behavior disorders also have trouble understanding cues that are used to identify emotional states in others (Cook et al., 1994). Bohnert et al. (2003) found that children aged 7-10 years

who were rated as more aggressive than their peers displayed difficulty understanding emotions, especially within the context of emotionally charged situations. In addition, it was found that while more aggressive children did not have more difficulty describing their feelings using emotion words than their non-aggressive peers, they did exhibit more difficulty understanding causes of emotion and tended to talk about their emotions and causes of those emotions in a less developmentally mature manner (Bohnert et al., 2003).

Further research in this area indicates that children with disruptive behavior disorders not only may experience atypical emotional responses to prohibited, antisocial acts, but also attribute those same atypical responses to others. Cimbora and McIntosh (2003) examined the emotional responses of adolescent males with both childhood-onset and adolescent-onset conduct disorder to stories involving a protagonist committing an antisocial act. These responses were compared to those of a normal control group. Participants were required to read short vignettes of boys committing antisocial acts and then indicate on a scale of 1 to 4 how happy, excited, afraid, guilty, and angry they believed the protagonist would feel after committing the acts. The participants were then asked to indicate on a scale of 1 to 4 whether the protagonist would commit the act again (Cimbora & McIntosh, 2003). The results indicated that the childhood-onset CD group reported less guilt following the antisocial act than the adolescent-onset CD group, which, in turn, reported less guilt than the control group. Both the childhood-onset CD and the adolescent-onset CD groups reported less fear following the antisocial act than the control group. In addition, the childhood-onset CD group reported more happiness and excitement than the control group. Finally, it was found that the tendency to repeat

antisocial acts was negatively associated with guilt and fear and positively associated with happiness and excitement (Cimbora & McIntosh, 2003).

In a similar vein, Arsenio, Gold, and Adams (2004) found that when presented with hypothetical situations involving non-aggressive acts designed to elicit a variety of emotions, behaviorally disruptive adolescents, as compared to their peers, tended to expect to experience fewer normative emotional reactions. In addition, adolescents with disruptive behaviors indicated that they expected to feel happier in situations involving proactive aggressive acts than did their peers (Arsenio et al., 2004). In sum, the literature in this area indicates that children and adolescents with disruptive behavior disorders experience emotional reactions in both aggressive and non-aggressive situations that are not commensurate with typical or normative emotional reactions elicited in those situations. Other research in this area indicates that individuals with CD tend to misperceive others' intentions, frequently attributing hostile intentions to the behavior of others and then responding with aggression that they believe is justified (DSM-IV, APA, 1994; Kazdin, 1995). It has been found that aggressive children exhibit a hostile attributional bias; that is, they are more likely than their normally developing peers to misinterpret ambiguous or even positive situations as hostile and to attribute hostile intent to others in these situations (Dodge, Price, Bachorowski, & Newman, 1990).

Dodge et al. (1990) examined the relationship between hostile attributional biases and aggressive behavior in a group of male adolescents incarcerated in maximum security prison for juvenile offenders. Participants were shown videotaped vignettes featuring adolescent actors portraying problematic social events. Different versions of the vignettes were designed such that the intent of the antagonist in the story varied as

hostile, accidental, prosocial, or ambiguous. Participants were asked to imagine that they were the person in the story who experienced a negative outcome and to attribute intent to the antagonist by choosing one of the following multiple choice options: a) to be mean, b) accidental, c) to be helpful, and d) it was unclear. The results of this study indicated that the tendency to attribute hostile intent to others was correlated with undersocialized conduct disordered behaviors; that is, those aggressive behaviors characterized as angry, reactive, and lacking social and affective bonds. In addition, hostile attributional biases were found to be positively correlated with the number of interpersonally violent crimes (Dodge et al., 1990).

The development of empathy is another characteristic of emotional appraisal that is often considered to be lacking in children with disruptive behavior disorders (DSM-IV, APA, 1994). In two meta-analytic studies, Eisenberg and Miller (1987) and Miller and Eisenberg (1988) concluded that empathy is positively related to prosocial behavior and negatively related to aggressive, antisocial behavior. Matthys, Walterbos, Van Engeland, and Koops (1995) studied person perception of boys with CD and related the results to the development of empathy in these children. Essentially, it was found that boys with CD perceive their peers from an egocentric point of view, or more in relation to themselves, while normal control children perceive their peers as independent from themselves. According to Matthys et al. (1995), boys with conduct disorder are deficient in affective perspective taking that is a prerequisite for the development of empathy.

Another study that examined empathy in youth with CD (e.g., aged 14-17 years) and in a normal control group was conducted by Cohen and Strayer (1996). The findings indicated that regardless of group membership, higher scores on measures of social

maladjustment and aggression were associated with lower scores on measures of empathy, with the CD group scoring significantly higher than the control group on measures of social maladjustment, aggression, and antisocial behavior. In addition, youth with CD were found to score significantly lower than normally functioning youth on measures of both affective (e.g., caring emotional responsiveness) and cognitive (e.g., ability to identify others' emotions, perspective taking) components of empathy. The authors concluded that youth with CD exhibit deficits in both affective and cognitive components of empathy (Cohen & Strayer, 1996).

Emotional regulation. Essentially, emotional regulation is the use of strategies, either behavioral or cognitive, in order to manage one's affective states. Children with disruptive behavior disorders exhibit difficulty in this area of emotional functioning. Casey and Murphy (1991) and Casey et al. (1993), as cited by Casey (1996), found that the behavior of children with disruptive behavior disorders in response to simulated background anger is much less organized than that of their normal peers. Children with disruptive behavior disorders tended to engage in off-task, prohibited acts and were less likely to avoid watching the angry simulation. However, physical avoidance is a typical manner in which normally functioning children tend to regulate their emotions (Berk, 1994). In addition, it was found that 64% of the children with disruptive behavior disorders as compared to 7% of the normal control children suggested an aggressive, physical intervention for the anger simulation, while 57% of the normal control group compared with none of the children with disruptive behavior disorders suggested strategies, such as apologizing, designed to minimize the negative aspects of the anger simulation (Casey, 1996). Finally, Casey et al. (1991), as cited by Casey (1996), found

that children with disruptive behavior disorders, as compared to their normal peers, tended to become more aggressive in positive situations of building excitement.

Summary

It is clear from the above discussion that children with disruptive behavior disorders demonstrate difficulty in all three areas of emotional development as compared to their normally developing peers. In the area of emotional expression, it appears that children with disruptive behavior disorders exhibit difficulty conforming to the emotional display rules of their culture. As well, they exhibit difficulty behaviorally expressing the emotion they claim to be feeling. In the area of emotional appraisal, these children demonstrate difficulty identifying and understanding their own and others' affective states, discussing their own and others' emotional experiences, and understanding cues that are typically used to identify their own and others' emotions. Further, children and adolescents with disruptive behavior disorders appear to experience emotional reactions that are significantly different from what would be considered normative or typical in a given situation. In addition, children with disruptive behavior disorders demonstrate deficits in both affective and cognitive components of empathy. Finally, children with disruptive behavior disorders exhibit deficits in their ability to behaviorally and cognitively regulate their emotional states.

Emotional Intelligence

A Model of Emotional Intelligence

Mayer and Salovey (1997) have proposed a model of emotional intelligence that defines emotional intelligence as involving "…the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they

facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p. 10). These four broad areas of emotional intelligence, which are termed "branches" by the authors, are each associated with its own set of abilities and skills and are purported to develop in a hierarchical fashion. Thus, the perception, appraisal, and expression of emotion branch is considered the earliest in the developmental progression, while the reflective regulation of emotions branch is considered the most psychologically integrated component of emotional intelligence (Mayer & Salovey, 1997; Mayer et al., 2000). Within each branch of the model there exist specific abilities that develop as the individual matures. These specific abilities also emerge in a developmental manner with certain abilities emerging earlier in development and others emerging later (Mayer & Salovey, 1997; Mayer et al., 2000).

It should be reiterated that development of emotional intelligence or competence proceeds in both a hierarchical and lateral manner. Thus, an individual may acquire some lower level skills within a given branch and then acquire some lower level skills within a higher branch before acquiring the remainder of the higher level skills within the lower branch. The tasks and abilities necessary for emotional competence begin to develop in infancy and continue to develop in an increasingly complex manner throughout childhood, adolescence, and adulthood (Mayer & Salovey, 1997; Mayer et al., 2000). Appendix C provides a diagram of the model.

The following will provide a discussion of the specific abilities and skills that emerge within each branch of the Mayer/ Salovey (1997) model of emotional intelligence. It should be noted that the following skills and abilities are representative of a larger set of

skills and abilities within the realm of emotional competence (Mayer & Salovey, 1997; Mayer et al., 2000). As previously stated, the developmentally earliest branch of the model is termed Perception, Appraisal, and Expression of Emotion branch. These most basic skills involve the ability to accurately identify and evaluate emotion and emotional content as well as to appropriately express emotion. More specifically, developmental tasks within this branch include the ability to identify emotion in one's own feelings, thoughts, and physical states and the ability to identify emotions in other people and in artwork (e.g., paintings, literature) (Mayer & Salovey, 1997; Mayer et al., 2000). In addition, with maturation, individuals develop the ability to accurately express both their emotions and their needs related to those emotions. Finally, the ability to discern when oneself or others are hiding true feelings or projecting emotion that is not commensurate with true feelings is another skill within this first branch of the model. That is, one develops the ability to distinguish between honest and dishonest expression of emotion (Mayer & Salovey, 1997; Mayer et al., 2000).

The second branch of the Mayer/Salovey (1997) model of emotional intelligence is termed Emotional Facilitation of Thinking. The skills within this branch concern how emotions interact with cognitive or intellectual processing. The developmental tasks within this branch include the ability to allow one's emotions to serve as a mechanism for directing attention to important information, facilitating appropriate judgments, and aiding memory. In addition, individuals learn how to generate emotions at will. This allows one to imagine or anticipate one's own and others' emotional reactions to a given situation that aids in decision making and perspective taking (Mayer & Salovey, 1997; Mayer et al., 2000). Finally, individuals develop the understanding that one's mood or

emotional state affects one's outlook on life; that is, a bad mood may lead to more pessimistic thoughts while a good mood may lead to more optimistic thoughts. In a similar vein, different emotional states appear to facilitate different problem solving modes. For example, happiness appears to facilitate creativity and inductive reasoning (Mayer & Salovey, 1997; Mayer et al., 2000).

The third branch of the Mayer/Salovey (1997) model of emotional intelligence is designated Understanding and Analyzing Emotions. The skills within this branch of the model have to do with the ability to understand and use emotional knowledge. Developmental tasks subsumed under this broader category of understanding and analyzing emotions include the ability to label emotions, recognize the relationships between different emotions and the labels utilized to describe those emotions, and interpret the meaning communicated by the emotion (e.g., sadness frequently arises from a loss) (Mayer & Salovey, 1997; Mayer et al., 2000). In addition, individuals develop the ability to recognize and understand complex emotions such as the fact that one can experience two contradictory emotions at the same time (e.g., ambivalence) or that certain emotions are the result of a blend between two other emotions (e.g., awe is a combination of fear and surprise). Finally, individuals begin to recognize and understand that there exist certain transitions among emotions such that the experience of a certain emotion may inevitably progress or transition to the experience of another emotion. For example, once acted upon, the feeling of anger may transition either to satisfaction or guilt (Mayer & Salovey, 1997; Mayer et al., 2000).

The fourth branch of the Mayer/Salovey (1997) model of emotional intelligence is termed Reflective Regulation of Emotions. The skills within this branch of the model all

concern the ability to consciously regulate emotions in order to augment intellectual and emotional growth. Developmental tasks comprising this branch include the following. First, individuals must be open to allowing themselves to experience emotions regardless of whether they are positive or negative. It is only through allowing oneself to experience emotion that one can learn something about the emotion and its causes and consequences (Mayer & Salovey, 1997; Mayer et al., 2000). Secondly, individuals develop the ability to separate their emotions from their behavior or, stated another way, appropriately engage and disengage from emotion. That is, one can feel anger yet not behave in an angry manner. Individuals learn strategies in order to control their emotions (e.g., counting to ten) and do so when it is deemed useful or appropriate. Conversely, individuals may choose to behave in a manner commensurate with their emotions when it is deemed prudent or appropriate to do so (Mayer & Salovey, 1997; Mayer et al., 2000).

Thirdly, as individuals mature, they develop the ability to consciously contemplate their own and others' emotional responses and moods. These evaluations lead one to make certain judgments, including the judgment that one does not fully understand why one is feeling a certain way or that one's feelings or mood are influencing one's thoughts. Furthermore, these evaluations of one's own and other's emotional states include how reasonable, typical, acceptable, or influential the moods are (Mayer & Salovey, 1997; Mayer et al., 2000). Finally, individuals develop the ability to regulate emotional states in both oneself and others such that strong negative emotions are tempered, while positive emotions are heightened. Concurrent with emotional regulation, regardless of the valence of the emotion, individuals are capable of allowing themselves to understand meaning imparted by strong emotions (Mayer & Salovey, 1997; Mayer et al., 2000).

Correspondence of the Model to the Literature

An examination of the Mayer/Salovey (1997) model of emotional intelligence indicates that this four-branch model demonstrates significant correspondence with the three areas of emotional development described in the literature. The skills and tasks associated with Branch 1 of the model (e.g., Perception, Appraisal, and Expression of Emotion) essentially correspond with the tasks of emotional development typically described in the literature on emotional expression. Common skills of emotional competence include the appropriate and accurate expression of emotions, the acquisition of emotional display rules, and the ability to distinguish between honest and dishonest expression of emotions. It should be noted that Branch 1 of the Mayer/Salovey model describes the ability to identify and evaluate emotions in the self and others; however, these abilities are typically subsumed under the area of emotional appraisal in the literature.

The skills and tasks associated with both Branch 2 (e.g., Emotional Facilitation of Thinking) and Branch 3 (e.g., Understanding and Analyzing Emotions) of the Mayer/Salovey model essentially correspond to the tasks of emotional development typically described in the literature on emotional appraisal. With regard to Branch 2, common tasks and skills include the development of perspective taking and empathy, both of which involve the interaction of affect and cognition, and the development of the ability to analyze emotional situations and, consequently, make appropriate judgments and determine courses of action. With regard to Branch 3, common tasks and skills include the ability to recognize relationships between emotions, discriminate between

emotions, meaningfully interpret emotions, and recognize that more than one emotion can be experienced simultaneously.

The final branch of the Mayer/Salovey model of emotional intelligence, Branch 4, is termed Reflective Regulation of Emotions. Developmental tasks and skills depicted by this branch correspond to those described in the literature on emotional regulation. Common tasks and skills include the use of both behavioral and cognitive strategies in order to manage or regulate one's emotional states, the ability to separate emotions from behavior, and the ability to cognitively evaluate emotions.

Summary

Disruptive behavior disorders of childhood represent a serious mental health problem for children and adolescents, with some studies indicating that these disorders account for a significant number of referrals to mental health professionals. The long-term prognosis of children diagnosed with disruptive behavior disorders, such as CD or ODD, is generally poor, with a significant percentage of these children continuing to evidence social dysfunction, problem behavior, and some form of psychopathology into adulthood. There exists a paucity of research on the emotional development of children and adolescents with disruptive behavior disorders. The research that does exist indicates that children with disruptive behavior disorders demonstrate deficits in all three areas of emotional development as compared to their normally developing peers. These areas include emotional expression, emotional appraisal, and emotional regulation.

A model of emotional intelligence has been presented that demonstrates significant correspondence to the existing literature in the area of emotional development. The Mayer/Salovey model of emotional intelligence describes tasks and skills associated with

the development of emotional intelligence in four broad areas: perception, appraisal, and expression of emotion; emotional facilitation of thinking; understanding and analyzing emotions; and reflective regulation of emotions. The correspondence of this model to the existing literature indicates that this model is an appropriate theoretical foundation upon which to base an examination of the development of emotional intelligence in youth exhibiting symptomology of disruptive behavior disorders such as CD and ODD.

Mayer et al., (unpublished) have developed a measure of assessment of emotional intelligence called the Adolescent Multifactor Emotional Intelligence Scale (AMEIS). This test is discussed at length in the next chapter; however, it should be noted that this test purports to measure abilities in the following areas: the ability to identify emotions in the self and others, the ability to use and assimilate emotions, the ability to understand and analyze emotions, and the ability to manage or regulate one's own and others' emotional states. These four areas correspond to the four branches of the Mayer/Salovey model of emotional intelligence (Mayer & Salovey, 1997; Mayer et al., 2000).

This study was originally intended to compare the development of emotional intelligence in youth with CD and ODD with that of normally functioning youth; however, due to the difficulty encountered obtaining the appropriate sample (which will be discussed further in the next chapter), the current study examines the correlations between emotional intelligence and behavioral symptoms, such as those associated with CD and ODD, utilizing the Mayer/Salovey model of emotional intelligence as a theoretical base. The results of this study will be important as they represent an effort to further research in the areas of emotional development and emotional intelligence to provide a clearer delineation of these constructs as they apply to children and youth who

display disruptive behaviors. By furthering current knowledge in this field, the groundwork is laid for the development of more effective intervention and treatment plans for children exhibiting these disorders.

Rationale and Hypotheses

Much of the existing literature in the area of emotional development generally does not differentiate between CD and ODD, but instead refers to children with disruptive behavior disorders. The existing literature base in this area indicates that youth with disruptive behavior disorders exhibit deficits in all areas of emotional development (Arsenio et al., 2004; Barth & Bastiani, 1997; Berk, 1994; Blair & Coles, 2000; Bohnert et al., 2003; Casey, 1996; Casey & Schlosser, 1994; Cimbora & McIntosh, 2003; Cohen & Strayer, 1996; Cole, Zahn-Waxler et al., 1994; Cook et al., 1994; Eisenberg & Miller, 1987; Goldman, 1993, as cited by Buck et al., 1998, Matthys et al., 1995; Miller & Eisenberg, 1988; Zabel, 1979). Other literature on the disruptive behavior disorders of childhood indicate that ODD is less serious in nature than CD (DSM-IV, APA, 1994; Hinshaw & Anderson, 1996; Lahey et al., 1992; Loeber et al., 1991; Vitiello & Jensen, 1995), may be more amenable to treatment than CD (Kazdin, 1995; Loeber et al., 1991; Routh & Daugherty, 1992; Vitiello & Jensen, 1995), and holds a better long-term prognosis than CD (DSM-IV, APA, 1994; Hinshaw & Anderson, 1996; Kazdin, 1995; Lahey et al., 1992; Loeber et al., 1991; Routh & Daugherty, 1992; Vitiello & Jensen, 1995). Given this information, it can reasonably be expected that youth with behavioral problems associated with CD and ODD would not only perform significantly lower than their normally developing peers on all scores associated with the AMEIS, but that performance would be expected to decline as the number of behavioral problems

increases. Thus, it was expected that scores on the AMEIS would be negatively correlated with number of behavioral symptoms, such as those associated with CD and ODD. More specifically, the following research hypotheses were investigated:

HO1: The Total AMEIS Test Scores will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the Diagnostic Interview for Children and Adolescents-Revised (DICA-R).

The literature indicates that children and youth with disruptive behaviors disorders evidence difficulty in the area of emotional expression (Bohnert et al., 2003; Buck et al., 1998; Casey, 1996; Casey & Schlosser, 1994; Cole, Zahn-Waxler et al., 1994). As the developmental tasks and skills associated with the Identifying Emotions Branch on the AMEIS correspond to those developmental tasks and skills delineated in the literature in the area of emotional expression, the following hypothesis was tested:

HO2: The Identifying Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

Given that the Faces, Designs, and Stories subtests comprise the Identifying Emotions Branch of the AMEIS, the following hypotheses were tested:

HO3: The Faces subtest scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

HO4: The Designs subtest scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

HO5: The Stories subtest scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

The literature also indicates that children and youth with disruptive behavior disorders exhibit deficits in the area of emotional appraisal (Arsenio et al., 2004; Blair & Coles, 2000; Casey, 1996; Casey & Schlosser, 1994; Cimbora & McIntosh, 2003; Cohen & Strayer, 1996; Cook et al., 1994; Matthys et al., 1995; Zabel, 1979). As the developmental tasks and skills delineated in the literature concerning emotional appraisal correspond to those on both the Using Emotions Branch and Understanding Emotions Branch of the AMEIS the following hypotheses were tested:

HO6: The Using Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

HO7: The Understanding Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

As the Using Emotions Branch of the AMEIS is comprised of the Synesthesia subtest the following hypothesis was tested:

HO8: The Synesthesia subtest scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

As the Understanding Emotions Branch of the AMEIS is comprised of the Perspectives and Blends subtests the following hypotheses were tested:

HO9: The Perspectives subtest scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

HO10: The Blends subtest scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

Finally, the literature indicates children and youth with disruptive behavior disorders exhibit deficits in the area of emotional regulation (Casey, 1996). As the developmental tasks and skills associated with the Managing Emotions Branch on the AMEIS correspond to those developmental tasks and skills delineated in the literature concerning emotional regulation, the following hypothesis was tested:

HO11: The Managing Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

As the Managing Emotions Branch of the AMEIS is comprised of the Managing subtest the following hypothesis was tested:

HO12: The Managing subtest scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

CHAPTER III

Methodology

This chapter provides a statement of the research problem and the purpose of the study. Procedural issues, including research design, participant selection, and general procedures are discussed. In addition, the measures that were utilized are described. It should be noted that due to difficulties encountered in locating and obtaining consent from appropriate participants for this study, certain changes were made in terms of the general procedure and research design. These changes will also be discussed in the following sections.

Statement of the Research Problem

A review of the literature indicates a pattern of deficits in the area of emotional development in children and youth with disruptive behavior disorders. According to the DSM-IV (APA, 1994), the associated features of CD include a lack of empathy and concern for the emotional and physical well-being of others, as well as a lack of appropriate feelings of guilt and remorse. In addition, ODD is characterized by excessive anger. Furthermore, the existing clinical literature indicates that children with disruptive behavior disorders experience difficulty in all three areas of emotional development, including emotional expression (see Bohnert et al., 2003; Casey, 1996; Casey & Schlosser, 1994; Cole, Zahn-Waxler et al., 1994; Goldman, 1993, as cited by Buck et al., 1998), emotional appraisal (see Arsenio et al., 2004; Barth & Bastiani, 1997; Blair & Coles, 2000; Bohnert et al., 2003; Casey, 1996; Casey & Schlosser, 1994; Cimbora & McIntosh, 2003; Cohen & Strayer, 1996; Cook et al., 1994; Dodge et al., 1990; Eisenberg & Miller, 1987; Goldman, 1993, as cited by Buck et al., 1998; Matthys et al., 1995;

Miller & Eisenberg, 1988; Zabel, 1979), and emotional regulation (see Berk, 1994; Casey, 1996), as compared to their normally developing peers. The systematic examination of the relationship between emotional intelligence, or competence, and disruptive behaviors, such as those typically associated with Conduct Disorder and Oppositional Defiant Disorder, is an important step to further the knowledge base in this area.

Purpose of the Study

In light of the above, the purpose of this investigation was to systematically examine the relationship between emotional intelligence and disruptive behaviors, such as those typically associated with CD and ODD. This study explored this relationship by examining how performance on the Adolescent Multifactor Emotional Intelligence Scale (AMEIS, Mayer et al., unpublished) was affected by number of disruptive behavior symptoms.

Research Design

Although the original design of this research study sought to utilize a case-control, three-group design (e.g., CD, ODD, and a nonclinical control group) with scores on the AMEIS (Mayer et al., unpublished) serving as the dependent variable; due to methodological issues, that will be discussed further in the section detailing the general procedures of the study, the design was changed. The current study utilized a correlational research design that examines the relationship, or correlation, between scores on the AMEIS and number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

Participant Selection

Initial CUNY Graduate School and University Center IRB approval was obtained for this research project in May 2001. Two forms of the basic consent form were used, one for the clinical population and one for the nonclinical population. It should be noted that consent forms were updated and Graduate School IRB approval renewed on a yearly basis. In addition, any changes to the consent forms that were necessitated by modifications in the procedure of the study (which are further discussed throughout the remainder of this section) were approved by the IRB on an as needed basis (see Appendices D through I for clinical and nonclinical consent forms and the accompanying Graduate Center IRB approval letters; see Appendix J for the Assent Form.).

Following initial IRB research study approval, an internet search was conducted in order to locate schools in Long Island and the five boroughs of New York serving students between the ages of 12-17 years with disruptive behavior disorders. This initial search yielded 35 schools that were contacted by telephone to explain the research study and request to conduct research. Out of those 35 schools, despite follow-up telephone calls, only 8 schools returned the call. Out of those 8 schools, 5 did not allow research projects, 2 did not have the appropriate population, and 1 allowed the research to take place. At the same time, the process of contacting regular education schools in order to locate students for the nonclinical group began. In total, 7 regular education schools on Long Island were contacted by telephone to explain the research study and request to conduct research. All 7 schools denied permission for research and it was later discovered that Long Island School Districts, as a policy, do not grant permission for research to graduate students. It should be noted that, although these schools were

initially contacted in May and June of 2001, it was not until the fall of the following school year that information pertaining to school status regarding study participation was obtained. Additionally, it should be noted that this researcher was working with another graduate student on data collection from May 2001 to September 2002. Although the dissertation research projects were separate, there existed overlapping testing procedures and assessment instruments that led to the collaboration.

There are several activities and events that occurred during the time frame between May 2001 and September 2003, when permission was requested of the New York City Department of Education (NYCDOE) to conduct research in the New York City Schools, which should be noted. In April 2002, the first batch of consent forms was sent home to parents of students at the private special education school that had agreed to participate in this study and testing was begun with those students whose parents gave consent (this will be discussed further later in this chapter). In addition, in September 2002 this researcher had a change in advisor due to staffing changes at the Graduate Center. At this time, the other graduate student with whom this researcher was collaborating changed dissertation topics, thus ending the collaboration. Finally, in June 2003, this researcher presented the formal proposal for this research study.

As stated previously, in September 2003, permission was requested of the New York City Department of Education (NYCDOE) to conduct research in the New York City Schools. Once the proper documentation was filed, permission was granted in February 2004 by the Proposal Review Committee of the New York City Department of Education to conduct said research. An internet search was conducted on the NYCDOE website in order to generate a list of potential regular educational and special educational public

schools in the NYC school system. Initial contact with the schools consisted of mailing the principal a packet with information detailing the purpose and procedures of the study and asking for permission to conduct research in the school. Packet information consisted of a cover letter, research proposal, a letter from the research advisor indicating approval of this research study, the NYCDOE Approval to Conduct Research Letter, the NYCDOE Research Proposal Summary, the NYCDOE Approval to Conduct Research Form, this researcher's resume (see Appendix K1-9), the clinical and nonclinical consent forms, and a letter from the Graduate Center IRB indicating approval of this research study (see Appendices G through J for consent forms and the CUNY IRB letter). These forms were required to be submitted to schools by the NYCDOE in order to request permission to conduct research. In addition, the NYCDOE Approval to Conduct Research Form was subsequently filled out by all participating schools and submitted to both the NYCDOE Proposal Review Committee and the CUNY Graduate School and University Center IRB. In all cases, following the packet mailing, at least two phone calls were made to each school principal in order to obtain a response.

The table in Appendix L presents a breakdown of the total number of schools solicited for participation in this research study and the schools' responses. Information on contact dates and school type is also provided. In total, 319 schools were contacted by mailing the packet information described above and by follow-up phone calls in order to request permission to conduct research. Additionally, 116 of the schools that did not respond to the initial contact were subsequently recontacted using the same procedure. Out of the 435 total contacts, 379 schools did not respond, 38 responded that they were not interested in participation, 8 responded that they did not have the appropriate population

for the study, and 10 responded that they would allow the research. Thus, out of a total of 319 schools contacted, 10 (3%) agreed to participate. It should be noted that 2 of these 10 schools dropped out of the project prior to any consent forms being sent home to parents, leaving a total of 8 schools (2.5% of the 319 schools solicited) participating in the project.

The tables in Appendix M provide a breakdown of the number of consent forms sent home to parents of students at the participating schools and the responses to these solicitations. Table M1 provides an overview of the student responses to requests for participation in the study. Tables M2 and M3 are arranged by school and dates consent forms were sent home to parents. A total of 1,363 consent forms were sent home to parents of students at the participating schools. The majority of the consent forms were mailed; however, a few were sent home with students at the discretion of the individual schools. It should be noted that approximately 390 of the total number of consent forms sent home were repeat mailings to parents who had not responded in any way to the original mailing. Out of the 1,363 consent forms sent out, 1,302 were not returned or responded to in any way. A total of 58 consent forms were returned with 14 returned blank, 17 returned with no consent, and 30 returned with consent. Thus, out of 1,363 students solicited for participation in this study, 30, or 2%, agreed to participate. Out of these 30, 3 students moved away before testing could commence, 9 students moved away prior to completing testing, 1 student was on an extended leave of absence due to a medical issue, 2 students refused testing, 1 student was not tested due to logistical problems, and 5 students were excluded from the study because they did not meet criteria (see further discussion of this issue in the testing procedure section). Thus, out of the

original 30 students agreeing to participate in this study, only 9 (0.6% of the 1363 students solicited) completed testing.

In the summer of 2005, 4 additional students were recruited for participation in this study. These students attended a public regular education high school on Long Island; however, recruitment did not occur through the school but instead through word of mouth in this researcher's neighborhood. These students were known to acquaintances of this researcher but not to this researcher. All 4 of these students ultimately completed testing, thus bringing up the total number of participants up to 13. It should be noted at this point that the 2 participants in this researcher's pilot study were also included in the data analysis. Thus, the final total of participating subjects was 15. Table 1 provides a synopsis of participant attrition.

Table 1

Synopsis of Participant Attrition

Descriptor Condition	Number of Students in Each Condition
Total agreeing to participate	36
Moved prior to testing	3
Moved during testing	9
Not tested due to school absence due to medical issues	1
Refused testing	2
Not tested due to logistical issues	1
Excluded from study due to exclusionary criteria	5
Completed testing	15

Due to the difficulty encountered in obtaining participants for this research project, in the summer of 2005 the decision was made to offer compensation for participation in the study in order to attempt to recruit additional participants. Permission to do so was requested of the NYCDOE and Graduate School IRB and was granted in the late fall of 2005. Compensation for participation in the research project was in the form of a $15 gift card from Staples. Six of the schools that had previously participated in the research study were recontacted to determine if they were still interested in participating. Three of the public special education schools gave no response and one was not interested in

further participation. The private special education school and the public regular education high school agreed to further participation in the study. The regular education high school also allowed this researcher to go into the school to briefly explain the purpose and procedures of the research study to the students, inform them that the consent forms had been mailed home to their parents, and ask them to decide with their parents if they were interested in participating in the study. This new version of the consent form (see Appendix I) was mailed home in 9/05 for the private special education school and in 10/05 for the public regular education high school. The 2 students from the private special education school and the 3 students from the regular education high school who completed that round of testing (see Appendix M) each received a $15 gift card from Staples for their participation. Thus, out of the total 15 participants, 10 received no compensation for participating.

School descriptions. The private special education school that participated in this research study is located in Queens, NY. This school is an ethnically diverse, day school for students aged approximately 7-17 years who exhibit learning and behavioral problems. Four of the five other participating special education schools are NYC public special education schools serving both junior high and high school aged students with the fifth public special education school serving just junior high school aged students. All of the special education schools are ethnically diverse and serve students with a variety of handicapping conditions, especially those with learning and behavioral problems. Both the regular education junior high and the regular education high school participating in this study are ethnically diverse NYC regular education public schools serving students in both general education and those with special educational needs.

Participant description. A total of 15 students, 9 male and 6 female, participated in this research study. The tables in Appendix N provide a summary of the participant description. Two students were African American, 8 were white, and 5 were Hispanic. Four students attended a private special education school, 2 attended public special education high schools, and 9 attended public regular education high schools. Participants ranged in age from 13 to 17 years with a mean age of 15.27 years. See Table 2 for a summary of pertinent descriptive statistics regarding participants.

Table 2

Descriptive Statistics for Participants

Descriptor	*M*	*SD*	Min.	Max.	*n*
Age	15.27	1.28	13	17	15
Hollingshead Score	48.36	6.80	40	61	11
ODD Symptoms	1.53	2.03	0	6	15
CD Symptoms	2.40	3.38	0	10	15
ADHD Symptoms	.92	2.02	0	7	13
SA Symptoms	.08	.28	0	1	13
MDD Symptoms	.77	1.48	0	4	13
BD Symptoms	0.00	0.00	0	0	13
GAD Symptoms	.23	.83	0	3	13

Notes: 1) SA indicates Substance Abuse; 2) MDD indicates Major Depressive Disorder; 3) BD indicates Bipolar Disorder; and 4) GAD indicates Generalized Anxiety Disorder.

A Hollingshead score was obtained for 11 of the 15 students. Despite repeated efforts, parents of 4 of the students did not return the Hollingshead questionnaire. Scores on the Hollingshead ranged from 40 to 61 with a mean score of 48.36. Obtainable scores on the Hollingshead range from 8-66. Hollingshead (1975) classifies scores into five group ranges: 8-19, indicating low SES; 20-29, indicating lower middle SES; 30-39, indicating middle SES; 40-54, indicating upper middle SES; and 55-66, indicating high SES. According to Hollingshead's classification, participants in this study fall into the upper middle to high SES groupings, with the average score falling within the upper middle SES range.

Two students were administered the K-BIT with both students obtaining a total test score of 92 that is in the average range. Nine students were administered the PPVT-III with all scores falling within the average range. Scores ranged from 85 to 108 with a mean score of 98. Four students received no intelligence assessment. The schools of two of those students stated that both students' intelligence falls within the average range. Finally, the two students from the pilot study were deemed to be of average intelligence as they both were obtaining "A's" and "B's" in their respective public regular education high schools and were not receiving any special educational services.

As stated previously, the DICA modules administered included ODD, CD, ADHD, Substance Abuse, Major Depressive Disorder, Bipolar Disorder, and Generalized Anxiety Disorder. All 15 participants were administered both the ODD and the CD modules; however, the remainder of the modules were not administered to the two students involved in the pilot study. Seven out of 15 participants exhibited symptoms of ODD with the number of symptoms exhibited ranging from 0 to 6 with a mean of 1.53. Seven

out of 15 participants also exhibited symptoms of CD with the number of symptoms ranging from 0 to 10 with a mean of 2.4. It should be noted that this point is discussed further in the Results chapter.

On the ADHD module, 4 out of 13 students exhibited symptoms that ranged from 0 to 7 with a mean of .92. DSM-IV (APA, 1994) diagnostic criteria stipulates that either 6 or more symptoms of inattention (out of the 9 symptoms listed) or 6 or more symptoms of hyperactivity-impulsivity (out of the 9 listed) must be present for the last 6 months in order for a diagnosis of ADHD to be made. None of the participants met criteria for ADHD as the one participant exhibiting 7 symptoms of ADHD exhibited 5 symptoms of inattention and 2 symptoms of hyperactivity-impulsivity. With regard to the Substance Abuse module, only 1 out of 13 participants exhibited 1 symptom of substance abuse. According to the DSM-IV (APA, 1994), diagnostic criteria for Substance Abuse is met if 1 out of the 4 symptoms listed is manifested over the past 12 months, accompanied by clinically significant distress or impairment.

Four out of 13 students exhibited symptoms of Major Depressive Disorder with the number of symptoms ranging from 0 to 4 with a mean of .77. The DSM-IV (APA, 1994) stipulates that in order for diagnostic criteria for a Major Depressive Episode to be met, at least 5 out of 9 criteria must be present during the same 2 week period, thus none of the participants met diagnostic criteria for Major Depressive Disorder. No participants exhibited symptoms of Bipolar Disorder and only 1 participant exhibited 3 symptoms of Generalized Anxiety Disorder. As the DSM-IV (APA, 1994) states that at least 3 out of 6 symptoms must be present with accompanying anxiety and worry in order for a diagnosis

of Generalized Anxiety Disorder to be made, the one participant exhibiting 3 symptoms may meet criteria for this disorder.

Measures

Diagnostic Interview for Children and Adolescents-Revised. (DICA-R; Reich, Leacock, & Shanfeld, 1995). The DICA-R is a semi-structured clinical interview designed for use with children aged 6 to 17 years. This instrument consists of a number of modules that exemplify DSM-IV diagnostic criteria for specific psychiatric disorders and aids in the diagnosis of said disorders. For this study, selected portions of the DICA-R were utilized to determine the presence or absence of CD, ODD, ADHD, Major Depressive Disorder, Bipolar Disorder, Generalized Anxiety Disorder, and Substance-Abuse Disorder. Reich (2000) reports a study by De la Osa et al. (1997) in which the findings indicated good validity of the DICA-R for children and adolescents. Specifically, the results indicated that the DICA-R demonstrates acceptable agreement with clinical diagnoses and high agreement with the Child Behavior Checklist (Achenbach & Edelbrook, 1983). No further information regarding the validity of the DICA-R is available. In terms of the reliability of the DICA-R, Reich (2000) reported a test-retest kappa coefficient of .92 for the CD module. Kappa coefficients ranging from .46 to .60 were reported for the ODD module and coefficients ranging from .32 to .59 were reported for the ADHD module. Test-retest kappa coefficients ranged from .55 to .80 for the depression module and from .55 to .72 for the overanxious module (Reich, 2000). Finally, test-retest kappa coefficients that ranged from .66 to 1.00 were reported for the substance dependence module (Saigh, Yasik, Oberfield, Halamandaris, & McHugh, 2002).

Kaufman Brief Intelligence Test. (K-BIT; Kaufman & Kaufman, 1990). The K-BIT is an individually administered screener of verbal and nonverbal intelligence and is designed for use with ages 4 to 90 years. This measure yields age-based standard scores for the two subtests (e.g., Vocabulary and Matrices) and an age-based composite score (Kaufman & Kaufman, 1990). The K-BIT was utilized to ensure participant intelligence scores between 85 and 115. In terms of reliability, the authors reported split-half reliability coefficients for the Vocabulary subtest that range from .89 to .98, and coefficients for the Matrices subtest that ranged from .74 to .95. Split-half reliability coefficients ranging from .88 to .98 were reported for the composite score (Kaufman & Kaufman, 1990). In addition, test-retest kappa coefficients were reported for the Vocabulary subtest that ranged from .86 to .97 and for the Matrices subtest that range from .80 to .92. Test-retest kappa coefficients ranging from .92 to .95 were reported for the composite score (Kaufman & Kaufman, 1990).

The validity of the K-BIT was established in a three-fold fashion: selection of subtests, item analysis, and internal and external test analyses (Kaufman & Kaufman, 1990; Miller, 1995; Young, 1995). That the subtests (e.g., Vocabulary and Matrices) were selected to correspond to other more established and comprehensive tests of intelligence provides evidence of construct validity. In addition, several methods of item analysis were performed, the results of which provided good evidence for the construct validity of the K-BIT (Kaufman & Kaufman, 1990; Miller, 1995; Young, 1995). Finally, evidence of construct and concurrent validity of the K-BIT was demonstrated by the results of studies indicating that the K-BIT has moderate to high correlation with other

measures of intelligence and moderate correlations with tests of achievement (Kaufman & Kaufman, 1990; Miller, 1995; Young, 1995).

Peabody Picture Vocabulary Test-Third Edition. (PPVT-III; Dunn & Dunn, 1997). The PPVT-III is designed for two purposes. The first is as an individually administered test of achievement intended to evaluate receptive knowledge of vocabulary. The second is as a screening test of verbal ability. The PPVT-III is a nonverbal, multiple-choice test in which pictures are presented in order to assess vocabulary knowledge. The test is designed for use with persons aged 2 ½ years through adulthood. This measure yields a total age-referenced standard score. Administration time is stated to be, on average, approximately 12 minutes (Dunn & Dunn, 1997).

In terms of reliability, the authors reported alternate-forms reliability coefficients, computed from standard scores, ranging from .88 to .96 with a median value of .94 (Dunn & Dunn, 1997). In addition, alpha coefficients were reported as a measure of internal consistency that ranged from .92 to .98. Further, split-half reliability coefficients were reported to range from .86 to .97. Finally, the authors reported test-retest reliability coefficients ranging from .91 to .94 (Dunn & Dunn, 1997).

In terms of validity, the authors claim good evidence of content and construct validity of the PPVT-III based on examination of test items and procedures utilized in preparing and selecting test items. In addition, the authors stated that good internal validity of the PPVT-III is evidenced by age differentiation, item homogeneity, and item growth curves (Dunn & Dunn, 1997). Finally, concurrent validity studies indicated that the PPVT-III demonstrates moderate to high correlations with measures of intelligence. Correlations with the Wechsler Intelligence Scale for Children-Third Edition ranged from .82 to .92

with correlations slightly higher with the Verbal IQ score (e.g., .91 to .92) than with the Performance IQ and Full Scale IQ scores. Further, correlations with the Kaufman Brief Intelligence Test ranged from .62 to .82 with slightly higher correlations with the Vocabulary score (e.g., .80 to .82) than with the Matrices or Composite scores (Dunn & Dunn, 1997). For purposes of this study, the PPVT-III, like the K-BIT, was utilized to ensure participant intelligence within the average range.

Dependent variable. The dependent variable utilized in this study was the Adolescent Multifactor Emotional Intelligence Scale (AMEIS; Mayer et al., unpublished). The AMEIS measures emotional intelligence competencies and is designed for use with youth aged 12-17 years. This test consists of seven subtests that are combined to create branch scores. The four branches of the test are designated Identifying Emotions, Using Emotions, Understanding Emotions, and Managing Emotions (Caruso, Van Buren, Mayer, & Salovey, unpublished manuscript).

The Identifying Emotions branch, which is created by combining the Faces, Designs, and Stories subtests, purports to measure one's ability to recognize and correctly identify emotions in oneself and others. This ability includes attending to and accurately recognizing and decoding facial expressions and tone of voice. In addition, this construct includes the ability to discern different emotions and degree of emotion (Caruso et al., unpublished manuscript). According to Caruso et al. (unpublished manuscript), the ability to identify emotions is the most basic emotional intelligence skill and is important because it allows for more appropriate responses in social-emotional situations.

The Using Emotions branch is comprised of the Synesthesia subtest and purports to measure the ability to utilize feelings to enhance cognitive problem-solving, reasoning,

decision making, and creative tasks. This construct involves the ability to generate and reason with emotions and allows one to better understand how one self and others can be motivated by emotion. This ability also allows for perspective taking (Caruso et al., unpublished manuscript).

The Understanding Emotions branch is comprised of the Perspectives and Blends subtests and purports to measure ability to understand emotions in one self and others that include understanding what happens as emotions get stronger, emotional change, and how people react to different emotions. This construct also includes the ability to understand that one can feel several conflicting emotions at the same time (Caruso et al., unpublished manuscript).

The Managing Emotions branch is comprised of the Managing subtest and purports to measure one's ability to manage or regulate one's or other's emotional states. This construct includes the ability to allow oneself to feel emotion, but then utilize rational thought combined with the emotion in order to make better decisions and take the most effective course of action in a given situation (Caruso et al., unpublished manuscript).

As stated previously, the Identifying Emotions branch is created by combining the Faces, Designs, and Stories subtests. The Faces subtest presents a color photo of a person, and the task requires that the emotions present in the photo be indicated using a 5-point scale with 1 indicating that the emotion is "definitely not present" and 5 indicating that the emotion is "definitely present". The emotions include anger, sadness, happiness, disgust, fear, and surprise. Eight photos are included in this task for a total of 48 items. The Designs subtest presents 8 graphic designs and requires that the emotions present in the design be indicated in the same manner as with the Faces subtest. There

are a total of 48 items in this subtest. The Stories subtest presents a short vignette and requires that the emotions of the person telling the story be indicated using a 5-point scale with 1 indicating that the emotion is "definitely not present" and 5 indicating that the emotion is "definitely present". The emotions presented are different for each vignette and include such emotions as envious, lively, ashamed, happy, frustrated, loving, sad, and jealous. Seven emotions are presented for each story for a total of 21 items (Caruso et al., unpublished manuscript).

The Synesthesia subtest, which represents the Using Emotions branch, requires that the test taker imagine an event or scenario that would make him or her feel a certain way (e.g., jealous, happy, embarrassed). Participants then rate their feelings along a semantic-differential 5-point scale (e.g., warm-cold, dark-light). Six events are presented, each with a 10-item semantic-differential scale to be rated, for a total of 60 items (Caruso et al., unpublished manuscript).

The Perspectives and Blends tasks represent the Understanding Emotions branch score. The Perspectives subtest, which consists of 20 items, presents two brief scenarios and requires that the feelings of the two main characters in each scenario be rated along a 5-point scale with 1 being "extremely unlikely" and 5 being "extremely likely". The Blends subtest consists of eight items and asks participants to determine from a list of four options which two simple emotions form a more complex emotion. For example, a question might ask "Sadness most closely combines which two emotions?" and the participant is required to chose from four options such as 1) anger and surprise; 2) fear and anger; 3) disappointment and acceptance; and 4) remorse and joy (Caruso et al., unpublished manuscript).

The Managing subtest, which represents the Managing Emotions branch, is a 24-item subtest and consists of six scenarios involving the test taker and another person. Based on the scenario, the effectiveness of a particular course of action is rated on a 5-point scale with 1 being "bad thing to do or extremely ineffective" and 5 being "good thing to do or extremely effective". This subtest purports to measure one's ability to manage or regulate one's or other's emotional states. This ability includes the ability to use emotions to make better decisions (Caruso et al., unpublished manuscript).

The AMEIS yields continuous scores. The individual test items are scored using consensus scoring that compares the subject's response to the proportion of sample subjects by age who selected that particular response. The authors give the following example: "On the Faces task...if 20% of the sample rates face 1 as a "5" on the anger term, then a participant who selects a "5" rating is given .20 toward a score on that task" (Caruso et al., unpublished manuscript). The subtest scores are then converted to *z*-scores that are combined to create the branch scores. All seven subtest *z*-scores are combined to create a Total AMEIS score. Scoring is effected via SPSS through the use of syntax files created by the authors. The Branch and the Total AMEIS scores can be utilized to compare groups on emotional intelligence functioning. Further analysis can be effected through a comparison of the individual subtest scores (Caruso et al., unpublished manuscript).

The psychometric properties of the AMEIS have been studied by the authors. Internal consistencies for the subtests have been found to range from α =.70 to .89 with only one subtest (Stories) below .80. The alpha coefficients for the branch scores range from .82 to .93. Internal consistency for the total test score was found to be .94. In terms of test

validity, the authors examined correlations with criterion measures. The AMEIS was found to correlate significantly and positively with measures of analytic ability and empathy. The AMEIS was found to be significantly and negatively correlated with measures of social loneliness (Caruso et al., unpublished manuscript).

Socioeconomic status index. In order to determine the socioeconomic status (SES) of the participants, their parents completed the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975, see Appendix O). The Hollingshead Index is a measure of socioeconomic status that is based on the viewpoint that SES is a multidimensional concept. The status score of the family (or individual, if over 18 years of age) is determined by combining information on three factors or dimensions: education, occupation, and marital status. Although gender is considered the fourth factor for the scale, gender does not enter into the equation in order to compute the status score. The status scores range from 8 to 66 with higher scores indicative of higher SES (Gottfried, 1985). According to Gottfried (1985), the Hollingshead Four Factor Index of Social Status is a highly reliable and valid measure of socioeconomic status. Correlation coefficients ranging from .79 to .93 were observed when the Hollingshead Index was correlated with other measures of SES (Gottfried, 1985).

Testing Procedures

As previously stated, the original design of this study was to be a case-control design with three groups, CD, ODD, and a nonclinical control group. The clinical and control groups were to be comprised of male and female students, aged 12-17 years as the AMEIS is normed for that age group. The two clinical groups were to be comprised of students who met criteria for either CD or ODD and had IQs between 85 and 115. The

control group was to be comprised of students with no psychiatric diagnosis and with IQs between 85 and 115. Scores on the AMEIS were to be compared between groups, with each group consisting of at least 21 participants. Thus, the first 17 students from the private special education school who agreed to participate in the study were tested following a different procedure than that of the rest of the students. Consent forms explaining the purpose and procedures of the study were mailed home to parents of students who were preselected by the social worker to meet the general criteria for inclusion in the study (e.g., behavioral symptoms, between the age of 12 and 17 years, average IQ).

Once parental consent was obtained, students were tested individually by this researcher. Students were tested at their school during school hours. Testing sessions were scheduled to be as least disruptive to the student's day as possible. The complete testing procedure generally consisted of two to three 45-60 minute sessions scheduled over two to three days. At the beginning of the first testing session, the purpose and procedures of the study were explained to the student who then signed an assent form (see Appendix J) if they agreed to participate. Students were first administered selected portions of the DICA (e.g., CD, ODD, ADHD, Major Depressive Disorder, Bipolar Disorder, Generalized Anxiety Disorder, Substance Abuse Disorder modules). Administration time for the DICA ranged from 30 to 60 minutes depending on how many symptoms were endorsed. If students met criteria for either CD or ODD and exhibited no other potentially confounding comorbid psychiatric or medical symptoms, they were then administered the K-BIT in order to ensure an IQ between 85 and 115. Administration time for the K-BIT ranged from 30 to 45 minutes. Once average IQ was established,

such that IQ not become a potentially confounding factor in the results, the Hollingshead was sent home for parents to complete and the AMEIS was administered to the student. Following a brief explanation of the test, students completed the AMEIS independently; however, this researcher monitored their progress and if at any time they did not understand the directions or had any questions, such questions were addressed by this researcher. Administration time for the AMEIS was approximately 60 minutes. If at any time students did not meet criteria for inclusion in the study, they were excluded from the study and no further testing ensued.

When testing began at the NYCDOE schools, the use of the K-BIT was discontinued and instead the PPVT-III was utilized to ensure participant intelligence within the average range. This change was made to comply with the NYCDOE policy of not allowing intelligence testing in the schools. Although technically a measure of receptive knowledge of vocabulary and a screening test of verbal ability, the PPVT-III's high correlations with measures of intelligence made this measure an acceptable alternative to the K-BIT. Due to the difficulty already encountered in obtaining participants for this study it was decided that complete data sets (e.g., scores on the selected modules of the DICA, PPVT-III, AMEIS, and Hollingshead) would be collected for each participant in the study regardless of whether or not they met criteria. The testing procedure remained the same as above except that at no point was a participant excluded from further testing. Administration time for the PPVT-III was approximately 30 minutes.

The 4 neighborhood participants were all tested individually by this researcher in their homes. Testing was completed in 1 session. The purpose of the testing was explained to the students and student assent was obtained. The order of test administration was the

DICA, the PPVT-III, and finally the AMEIS. Administration times were commensurate with those already stated. Information to complete the Hollingshead was verbally obtained from a parent by this researcher.

As stated previously, the data obtained from the 2 participants in the pilot study was included in the data analysis. For the pilot study 2 neighborhood students were solicited for participation and parents of both students gave consent. Like the 4 neighborhood participants solicited for this research study, the 2 participants in the pilot study were known to acquaintances of this researcher but not to this researcher and attended a public regular education high school on Long Island. The pilot study participants were individually tested in their homes by this researcher. The purpose of the pilot study was explained to the students and verbal assent was obtained. These participants were tested in 1 session and were administered the AMEIS and the CD and ODD modules of the DICA. The information to complete the Hollingshead was verbally obtained from a parent by this researcher. Although intelligence testing was not conducted with these students, both students were obtaining grades in the "A" and "B" range in their public regular education high schools and were not receiving any special educational services.

CHAPTER IV

Results

This chapter delineates the results of the data analyses including the procedures surrounding those analyses. Descriptive statistical information pertaining to the four AMEIS Branch Scores and the AMEIS Total Emotional Intelligence Quotient (EIQ) is provided. The results of Pearson and Spearman Correlations are provided in terms of the dependent variable, the AMEIS, and the number of behavioral symptoms of CD and ODD.

The research hypotheses for the study are listed in Chapter I. Essentially, the hypotheses that were investigated in this study were that the four Branch Scores and Total EIQ of the AMEIS are negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R. It should be noted that in the initial conception of this research study, additional research hypotheses (see Chapter I for a listing) were to be investigated. In brief, it was hypothesized that scores on each of the subtests (e.g., Faces, Designs, Stories, Synesthesia, Perspectives, Blends, Managing) of the AMEIS would be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R. Although reliability for the individual AMEIS subtests ranges from $\alpha = .70$ to .89, with only one subtest (Stories) below .80, given the extremely small sample size (e.g., $n = 15$), and thus the difficulty in interpreting any such correlations, it was determined that only the hypotheses involving the four Branch Scores and the Total EIQ of the AMEIS would be investigated.

Descriptive Statistics

In order to determine the number of behavioral symptoms of CD and ODD exhibited by participants, the results of each DICA interview were utilized to establish the number of DSM-IV criteria met by each participant in terms of CD and ODD. Score sheets (see Appendices P and Q for sample CD and ODD score sheets, respectively) were created based on DSM-IV criteria and the DICA interviewing protocol for each disorder in order to facilitate scoring. Similar score sheets were also used to score participants on each of the other DICA modules administered (e.g., ADHD, Substance Abuse, Major Depressive Disorder, Bipolar Disorder, and Generalized Anxiety Disorder). Table 3 indicates the descriptive statistics for the CD and ODD symptoms.

Table 3

Descriptive Statistics for CD and ODD Symptomology

Descriptor	*M*	*SD*	Min.	Max.	*n*
CD symptoms	2.40	3.38	0.00	10.00	15
ODD symptoms	1.53	2.03	0.00	6.00	15

It can be observed from Table 3 that the number of CD symptoms exhibited by participants ranged from 0 to 10. The average number of CD symptoms was 2.4. According to the DSM-IV, a diagnosis of CD is warranted by the presence of three or more symptoms, out of the 15 symptoms listed (see Appendix A for DSM-IV diagnostic criteria for CD), within the past 12 months, with at least one criterion present within the

past 6 months. Appendix N presents data for individual participants. As can be seen in Table N2 in Appendix N, 5 out of the 15 participants meet criteria for CD. Of those 5 participants, number of CD symptoms range from 4 to 10. Further, Table 3 (above) indicates that the number of ODD symptoms ranged from 0 to 6, making the average number of symptoms exhibited for ODD 1.53. DSM-IV diagnostic criteria for ODD stipulates that 4 or more of the 8 symptoms listed (see Appendix B for DSM-IV diagnostic criteria for ODD) must be present, for at least 6 months, for a diagnosis of ODD. By referring to Table N2 in Appendix N, it can be observed that 4 out of the 15 participants meet criteria for ODD. Of those 4 participants, 3 exhibited 4 symptoms of ODD each and 1 participant exhibited 6 symptoms of ODD.

The dependent variable, the AMEIS, was scored by one of the authors of the test via an SPSS syntax file program. Branch Scores and the EIQ were initially calculated as *z*-scores by the program. These were then converted to standard scores by this researcher with a mean of 100 and a standard deviation of 15. Table 4 indicates the descriptive statistics, including mean and standard deviation, for the AMEIS Branch Scores and EIQ Score.

Table 4

Descriptive Statistics for the AMEIS Scores

Descriptor	*M*	*SD*	Min.	Max.	*n*
Branch 1- Identifying Emotions	105.76	.975	103.75	107.65	15
Branch 2- Using Emotions	104.72	1.727	102.85	110.50	15
Branch 3- Understanding Emotions	102.14	3.700	92.20	111.70	15
Branch 4- Managing Emotions	104.92	4.827	103.00	121.75	15
Total EIQ	104.35	1.575	103.15	109.30	15

It can be observed that given the AMEIS' converted mean of 100 and standard deviation of 15, that all of the mean Branch Scores and the mean EIQ are within the average range. One participant scored well above the mean on Branch 4, with a score of 121.75, indicating superior performance in the area of managing and coping with emotions and emotional content.

Correlational Analyses

Prior to examining correlations between scores on the AMEIS and number of behavioral symptoms, scatterplots of the number of CD and ODD symptoms and each of the obtained AMEIS test scores (i.e., the four Branch scores and the Total score) were constructed to gain information regarding the nature of the relationship between the variables. Appendices R and S present these scatterplots. With the exception of the scatterplots of number of CD and ODD symptoms and scores on Branch 1 of the AMEIS, the remaining scatterplots appear to depict linear relationships between the variables. In addition, it should be noted that outliers are evident in all of the scatterplots (i.e.,

ODD/Branch 2, ODD/Branch 3, ODD/Branch 4, ODD/Total AMEIS score, CD/Branch 2, CD/Branch 3, CD/Branch 4, CD/Total AMEIS score) with the exception of the plots of ODD and Branch 1 and CD and Branch 1. It should be noted; however, that a small sample size, as in this study, can significantly affect the layout of a scatterplot, thus obscuring the actual relationship between variables (Glass & Hopkins, 1996).

Both Pearson and Spearman rank order correlations were run in order to assess the degree and direction of association between emotional intelligence as measured by the AMEIS and the number of CD and ODD symptoms present. Table 5 delineates these correlations.

Table 5

Correlations for AMEIS Scores and Number of Behavioral Symptoms

Behavioral Symptoms	Branch 1		Branch 2		Branch 3		Branch 4		Total EIQ	
	r	ρ	*r*	ρ	*r*	ρ	*r*	ρ	*r*	ρ
ODD	-.683**	-.611*	-.214	-.151	-.317	-.270	-.277	-.461	-.375	-.478
CD	-.548*	-.558*	-.073	-.059	-.285	-.208	-.258	-.415	-.302	-.333
ODD/CD	-.641*	-.624*	-.135	-.003	-.318	-.259	-.284	-.450	-.353	-.428

Notes: 1) ** correlation significant at the .01 level (2-tailed); 2) * correlation significant at the .05 level (2-tailed); 3) *r* = Pearson's correlation coefficient; and 4) ρ = Spearman's rank order correlation coefficient.

Although it appears that the Pearson correlations are similar to the Spearman correlations, the Spearman correlations were utilized so as to more accurately account for a possible non-linear relationship between behavioral symptoms and AMEIS scores and to account for the probability that behavioral symptoms are rank ordered; that is, that the presentation of the disorder may depend on reaching a threshold of a certain number of symptoms rather than presentation worsening uniformly with each additional symptom. Correlations were examined for the following: the number of CD symptoms with each of the Branch Scores; the number of CD symptoms with the total AMEIS Score; the number of ODD symptoms with each of the Branch Scores; the number of ODD symptoms with the total AMEIS Score; the total number of behavioral symptoms (i.e., CD plus ODD) with each of the Branch Scores; and the total number of behavioral symptoms with the total AMEIS Score. Both Pearson and Spearman correlations were run via SPSS using the *z*-scores obtained for the AMEIS.

It should be noted that all of the obtained correlations are in the hypothesized direction; that is, the correlation between behavioral symptomology and scores obtained on the measure of emotional intelligence are negative, indicating that as the number of behavioral symptoms increase, scores on the AMEIS decrease. In addition, significant negative correlations ($p < .05$ level) were obtained for Branch 1 (Identifying Emotions) and number of ODD symptoms ($\rho = -.611$), number of CD symptoms ($\rho = -.558$), and total number of behavioral symptoms (e.g., ODD/CD) ($\rho = -.624$), supporting HO2 (e.g., The Identifying Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.). This indicates that, in fact, increasing behavioral symptoms of ODD and CD are

associated with impaired ability to recognize and correctly identify emotions in one self and others.

Although none of the remaining correlations are statistically significant at even the $p < .05$ level, given the small sample size ($n = 15$) of this study and thus limited power in detecting a significant correlation, there are still numerous correlations worth noting. Cohen (1992) describes a small effect size as .10, a medium effect size as .30, and a large effect size as .50 for correlation coefficients. Cohen (1992) further stipulates that, in general, a sample size of 85 is necessary to detect a medium effect size at the $p < .05$ level of significance. As the sample size in this study is much smaller than that, it is noteworthy that many of the obtained correlations, while not statistically significant, either approach or exceed a correlation of .30, a medium effect size. Cohen indicates that medium effect sizes "approximate the average size of observed effects in various fields" and "are likely to be visible to the naked eye of a careful observer" (p. 156).

Scores on Branch 4 (Managing Emotions) are negatively and moderately correlated with number of ODD symptoms ($\rho = -.461$), number of CD symptoms ($\rho = -.415$), and total number of behavioral symptomology ($\rho = -.450$). While not statistically significant, support is lent to HO5 (i.e., The Managing Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.). This indicates that individuals with behavioral problems have difficulty managing or regulating their own or others' emotional states.

Further, the Total AMEIS Scores are negatively and moderately correlated with number of ODD symptoms ($\rho = -.478$), number of CD symptoms ($\rho = -.333$), and total number of behavioral symptoms ($\rho = -.428$), lending support to HO1 (i.e., The Total

AMEIS Test Scores (EIQ) will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.). These effect sizes are medium to approaching large and indicate that as the number of behavioral symptoms increases, individuals experience increased impairment in all areas of Emotional Intelligence as measured by the AMEIS, including identifying, using, understanding, and managing emotions.

An examination of the Branch 2 (Using Emotions) correlations with number of ODD, CD, and ODD/CD symptoms indicates that HO6 (i.e., The Using Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.) is not supported. That is, it does not appear that individuals with behavioral symptoms differ from individuals without behavioral symptoms on the ability to use feelings to enhance cognitive problem solving, reasoning, decision-making, and creative tasks.

An examination of the Branch 3 (Understanding Emotions) correlations with number of ODD (ρ = -.270), CD (ρ = -.208), and ODD/CD (ρ = -.259) symptoms indicates possible small to moderate support for HO4 (i.e., The Understanding Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.). The ability to understand emotions in oneself and others, including understanding how emotions can change and how people react to different emotions, may become more impaired as behavioral symptoms increase. Given a larger sample size, it is possible that these correlations would approach significance.

To summarize, all correlations were in the predicted direction indicating that as number of ODD and CD symptoms increased, emotional intelligence, as assessed by the AMEIS, decreased. With the exception of Branches 2 (Using Emotions) and 3 (Understanding Emotions), the correlations represented medium to large effect sizes. Although support was not provided for the hypothesis that the Using Emotions Branch scores on the AMEIS would be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R; the correlations of number of behavioral symptoms with Branch 3 scores represented small to moderate effect sizes. This indicates a greater number of disruptive behavioral symptoms were associated with lesser ability to identify, understand, and manage emotions.

Additional Analyses

Additional analyses were conducted in order to examine the correlations of age and gender with both the AMEIS scores and the number of behavioral symptoms. Prior to examining these correlations, scatterplots were constructed to examine the nature of the relationship between the variables being correlated. Appendices T through V present these scatterplots. In general, the scatterplots indicate a linear relationship between age and scores on the AMEIS, with the exception of age and Branch 1 scores. The nature of the relationship between age and number of behavioral symptoms is not apparent from the plots. Further, the scatterplots indicate that, in general, girls tended to score somewhat higher on the AMEIS than boys. Finally, the plots indicate that the boys in this sample tended to exhibit more behavioral symptoms than the girls.

Both Pearson and Spearman correlations were run in order to assess the degree and direction of association between age and gender, age and the number of CD and ODD

symptoms present, gender and the number of CD and ODD symptoms present, age and scores on the AMEIS, and gender and scores on the AMEIS. Tables 6 and 7 delineate these correlations.

Table 6

Correlations for Age and Gender with Number of Behavioral Symptoms

Descriptor	Age		Gender		ODD		CD		CD/ODD	
	r	ρ	*r*	ρ	*r*	ρ	*r*	ρ	*r*	ρ
Age	1.0	1.0	-.594*	-.606*	-.471	-.535*	-.374	-.466	-.439	-.493
Gender	-.594*	-.606*	1.0	1.0	.638*	.721**	.601*	.717**	.658**	.718**

Notes. 1) ** correlation significant at the .01 level (2-tailed); 2) * correlation significant at the .05 level (2-tailed); 3) *r* = Pearson's correlation coefficient; and 4) ρ = Spearman's rank order correlation coefficient.

Table 7

Correlations for Age and Gender with AMEIS Scores

Descriptor	Branch 1		Branch 2		Branch 3		Branch 4		Total EIQ	
	r	ρ	*r*	ρ	*r*	ρ	*r*	ρ	*r*	ρ
Age	.287	.360	.356	.248	.316	.284	.040	.031	.345	.347
Gender	-.446	-.411	-.378	-.399	-.469	-.351	-.399	-.163	-.483	-.419

Notes. 1) *r* = Pearson's correlation coefficient and 2) ρ = Spearman's rank order correlation coefficient.

As can be seen from Table 6, gender is significantly correlated with age (r = -.594, p < .05), ρ = -.606, p < .05). That is, the females in this sample tended to be older than the males. The mean age of the females was 16.17 years, while the mean age of the males was 14.67 years. While this significant correlation creates difficulty in separating the correlations of age and gender with behavioral symptoms and the AMEIS scores, there are still some correlations that are noteworthy. Again, although it appears that the Pearson correlations are similar to the Spearman correlations, the Spearman correlations were utilized so as to more accurately account for a possible non-linear relationship between variables and to account for the probability that behavioral symptoms are rank ordered.

As can be observed from Table 6, age is negatively correlated with number of CD and ODD symptoms; that is, as age increases, the number of behavioral symptoms exhibited tends to decrease. The correlation of age with number of ODD symptoms is statistically significant (ρ = -.535, p < .05). While the correlations of age with number of CD symptoms (ρ = -.466) and total number of behavioral symptoms (ρ = -.493) are not statistically significant, they are both approaching what would be considered a large effect.

It can also be observed from Table 6 that gender is positively and significantly correlated with number of CD and ODD symptoms. As boys were overrepresented in this sample, this indicates that the boys exhibit significantly more behavioral symptoms than girls. The correlations of gender with number of ODD symptoms (ρ = .721, p < .01), number of CD symptoms (ρ = .717, p < .01), and total number of behavioral

symptoms (ρ = .718, $p < .01$) are all statistically significant and considered to be large effects.

The correlations of age with the AMEIS scores are all positive and delineated in Table 7. Moderate correlations exist between age and the Total AMEIS EIQ (ρ = .347) and Branch 1 (Identifying Emotions) (ρ = .360). The correlations of age with Branch 2 (Using Emotions) (ρ = .248) and Branch 3 (Understanding Emotions) (ρ = .284) approach a medium effect size, while there does not appear to be any significant correlation between age and Branch 4 (Managing Emotions) (ρ = .031). Despite the small sample size, these results indicate that with increased age, adolescents appear to obtain higher scores on the AMEIS, especially in the areas of identifying emotions, using emotions, and understanding emotions. There does not; however, appear to be any significant correlation between increasing age and the ability to manage emotions in this sample.

Finally, while the correlation of gender with the AMEIS scores (see Table 7) yielded no statistically significant results, the correlations of gender with Branch 1 (ρ = -.411), Branch 2 (ρ = -.399), Branch 3 (ρ = -.351), and the Total EIQ (ρ = -.419) are all negative and indicate medium effect sizes. These results indicate that girls (less represented than boys in this sample) appear to score higher than boys on the AMEIS, especially in the areas of identifying, using, and understanding emotions. There was no significant correlation between gender and Branch 4 (Managing Emotions) on the AMEIS (ρ = -.163) and the effect size of this relationship is small.

To summarize, the results of this study indicate that behavior disorders, such as CD and ODD, may be associated with impaired emotional intelligence as measured by the AMEIS, especially in the areas of identifying and managing emotions. Further, the

results tentatively indicate that there may be some association of increasing number of behavioral symptoms and impairment in the area of understanding emotions; however, there does not appear to be a correlation between number of behavioral symptoms and the area of using emotions as measured by the AMEIS. Finally, the results of this study indicate that older adolescents may tend to obtain higher scores on the AMEIS, especially in the areas of identifying emotions and understanding emotions, with girls scoring higher than boys, especially in the areas of identifying, using, and understanding emotions.

CHAPTER V

Discussion

This chapter provides a discussion of the results of this study. The current research results will be discussed in terms of how they relate to the existing literature. Further, the limitations of this study are discussed. Finally, theoretical and treatment implications for youth with disruptive behavior disorders are provided, along with implications for future research in the area of emotional intelligence and disruptive behavior disorders.

Emotional Intelligence and Disruptive Behavior Disorders

A review of the literature in the area of emotional intelligence or competence (see Chapter I) suggests that this construct can be broadly conceptualized as falling into three domains: emotional expression, emotional appraisal or understanding, and emotional regulation. As previously discussed, the Mayer/Salovey model of emotional intelligence, upon which the AMEIS is based, demonstrates significant correspondence to the existing literature base. The present study examined the relationship between emotional intelligence and disruptive behaviors, such as those typically associated with CD and ODD by examining how performance on the Adolescent Multifactor Emotional Intelligence Scale (AMEIS, Mayer, Salovey, & Caruso, unpublished) was affected by number of disruptive behavior symptoms. A correlational research design was utilized to examine the relationship, or correlation, between scores on the AMEIS and number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.

Number of disruptive behavior symptoms and performance on the AMEIS. The results of this study indicate that the overall hypothesis; that is, the Total AMEIS Test Scores will be negatively correlated with number of behavioral symptoms associated with CD

and ODD as assessed by the DICA-R, was supported. Although not statistically significant, a moderate effect size was noted in the correlation of the Total AMEIS Test Score with number of CD symptoms while the correlation with number of ODD symptoms approaches what would be considered a large effect size. An examination of the correlation of number of behavioral symptoms with the individual Branch Scores indicates that the most notable correlations occur with Branch 1 (Identifying Emotions) and Branch 4 (Managing Emotions) supporting HO2 (The Identifying Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.) and HO11 (The Managing Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.).

The Identifying Emotions Branch (Branch 1) of the AMEIS is designed to measure the ability to recognize and correctly identify emotions in one self and others. This basic skill involves the ability to accurately identify and evaluate emotional content, including attending to and accurately recognizing and evaluating facial expressions and tone of voice. In addition, this construct includes the ability to discern different emotions and degree of emotion, including the ability to distinguish between honest and dishonest expression of emotion (Caruso et al., unpublished manuscript; Mayer & Salovey, 1997; Mayer et al., 2000). According to Caruso et al. (unpublished manuscript), the ability to identify emotions is the most basic emotional intelligence skill and is important because it allows for more appropriate responses in social-emotional situations. The results of the current research study indicate that youth with disruptive behavior disorders appear to demonstrate significant deficits in this area as compared to their normally developing

peers. It should be noted that the correlations in this area are statistically significant at the $p < .05$ level.

These results are consistent with findings in the existing literature base in the area of emotional appraisal. For example, findings indicate that children with disruptive behavior disorders exhibit difficulty identifying and understanding their own and others' affective states (Barth & Bastiani, 1997; Blair & Coles, 2000; Casey, 1996; Casey & Schlosser, 1994; Zabel, 1979), as well as discussing their own and others' emotional experiences (Casey & Schlosser, 1994; Cook, Greenberg, & Kusche, 1994; Goldman, 1993, as cited by Buck et al., 1998). In addition, it has been found that children with disruptive behavior disorders have trouble understanding, assessing, and explaining cues that are typically used to identify their own and others' emotions (Cook et al., 1994; Bohnert et al., 2003). Further, the emotional reactions of children and adolescents with disruptive behavior disorders in a given situation have been found to be significantly different from what would be considered normative (Cimbora & McIntosh; 2003; Arsenio et al., 2004).

The results of the current study also indicate that disruptive behavior disorders, such as CD and ODD, may be associated with deficits in managing or regulating emotions. Although not statistically significant, correlations in this area indicate at least a medium effect size (the correlation of Branch 4 with number of ODD symptoms approaches a large effect size) that is quite notable given the extremely small sample size. The Managing Emotions Branch (Branch 4) of the AMEIS purports to measure ability to manage or regulate one's own or others' emotional states. This construct includes the ability to use rational thought combined with the emotion in order to make better

decisions and take the most effective course of action in a given situation (Caruso et al., unpublished manuscript). Managing or regulating emotions includes the ability to feel a particular emotion (e.g., anger), but not necessarily act on that emotion. The development of strategies to control emotion and the conscious use of those strategies is another important part of emotional regulation (Mayer & Salovey, 1997; Mayer et al., 2000).

That disruptive behavior disorders are associated with deficits in behaviorally and cognitively managing or regulating emotional states has been supported in the existing literature on emotional regulation. Cole, Zahn-Waxler et al. (1994) found that boys at-risk for disruptive behavior disorders have more difficulty than low-risk boys in maintaining expressive control and modulating their emotional state. It has also been found that children with disruptive behavior disorders tend not to utilize strategies in order to control or regulate their emotions (Berk, 1994; Casey, 1996; Casey and Murphy, 1991, as cited by Casey, 1996; Casey et al., 1993, as cited by Casey, 1996).

Further, the results of the current study tentatively indicate that there may be some association of increasing number of behavioral symptoms and impairment in the area of understanding emotions, lending some support to HO7 (The Understanding Emotions Branch scores on the AMEIS will be negatively correlated with number of behavioral symptoms associated with CD and ODD as assessed by the DICA-R.). The correlations in this area indicate a small to moderate effect size. The Understanding Emotions Branch (Branch 3) of the AMEIS purports to measure the ability to understand emotions in one self and others, including understanding emotional change, what happens as emotions get stronger, and how people react to different emotions. This construct also includes the

ability to recognize and understand complex emotions such as the fact that one can experience two contradictory emotions at the same time (e.g., ambivalence) or that certain emotions are the result of a blend between two other emotions (e.g., awe is a combination of fear and surprise). Further, the ability to interpret meaning communicated by emotions is a competency associated with emotional understanding (Caruso et al., unpublished manuscript; Mayer & Salovey, 1997; Mayer et al., 2000).

Again, there is existing literature supporting the results of this study in this area. It has been found that aggressive children display more difficulty than their non-aggressive peers understanding emotions, especially with regard to strong emotional content (Bohnert et al., 2003). Further, it has been found that more aggressive children exhibit more difficulty than their non-aggressive peers understanding causes of emotion and tended to talk about their emotions and causes of those emotions in a less developmentally mature manner (Bohnert et al., 2003).

The Using Emotions Branch (Branch 2) of the AMEIS purports to measure the ability to utilize feelings to enhance cognitive problem-solving, reasoning, decision making, and creative tasks. This construct involves the ability to generate and reason with emotions and allows one to better understand how one self and others can be motivated by emotion. Competencies in this area include the ability to imagine or anticipate one's own and others' emotional reactions to a given situation that aids in decision making and perspective taking (Caruso et al., unpublished manuscript; Mayer & Salovey, 1997; Mayer et al., 2000). The results of the current study do not support a correlation between number of behavioral symptoms and the area of using emotions; however, the existing literature base in the area of emotional competence includes research supporting the

hypothesis that children with disruptive behavior disorders exhibit deficits in skills assessed by this branch. Matthys et al. (1995) found that compared to their normally developing peers, boys with CD tend to perceive others from an egocentric point of view and exhibit deficits in affective perspective taking which is a prerequisite for the development of empathy. Cohen and Strayer (1996) also found that youth with CD exhibit deficits in both affective and cognitive aspects of empathy.

As previously mentioned, an interesting observation revealed by the current findings is that the strongest correlations of number of disruptive behavior symptoms and AMEIS scores occurred with Branch 1 (Identifying Emotions) and Branch 4 (Managing Emotions). Further, the weakest correlations occurred with Branch 2 (Using Emotions) and Branch 3 (Understanding Emotions). Although the small sample size of the current study limits the conclusions that can be drawn from this observation, it is worth noting that it appears that this difference might be explained on the basis of abstract versus more realistic test items on the AMEIS.

Branches 1 and 4 are comprised mainly of test items that are realistic in nature. For example, one of the subtests in Branch 1 require that the respondent rate the presence or absence of specific emotions in a picture of a face, while another subtest requires the rating of the presence or absence of emotions in a person telling a short story. The subtest in Branch 4 requires that the respondent rate the effectiveness of a particular course of action in a hypothetical scenario involving the respondent and another person. These realistic test items are juxtaposed with the more abstract test items found in Branches 2 and 3. For example, the subtest in Branch 2 (with which no correlation was found with number of behavioral symptoms) requires that the respondent imagine a

scenario in which he or she feels a particular emotion and then rate his or her feelings along numerous continuums consisting of abstract concepts (e.g., warm-cold, dark-light, sweet-sour, yellow-purple). Finally, Branch 3 is comprised of one subtest that is realistic in nature and one subtest that is abstract in nature. The correlations of number of behavioral symptoms with this Branch indicated a small to moderate effect size, but were notably less that those observed with Branches 1 and 4.

Although purely supposition at this point, it may be that children and adolescents with disruptive behavior disorders do not differ from their normally developing peers in the area of emotional intelligence at the more abstract, perhaps even basic level, but when required to organize and manage their own and others emotions in a real world context, deficits arise. It should be noted; however, that one of the subtests in Branch 1 (where statistically significant negative correlations were observed with number of disruptive behavior symptoms) is abstract in nature (e.g., rating the presence or absence of emotions in designs), but this may have been offset by the two subtests containing more realistic test items.

Another possibility that may begin to explain the lack of support regarding the hypotheses involving Branches 2 and 3 may lie in the nature of the dependent variable itself. The AMEIS is a paper and pencil test that, although possibly the simplest, may not be the most effective way to assess emotional intelligence. As previously mentioned, Branches 2 and 3 of the AMEIS best correspond to the literature on emotional appraisal. Despite the current findings indicating no correlation of number of behavioral symptoms with scores on Branch 2 and small to moderate correlations with scores on Branch 3, the existing literature base in the area of emotional appraisal supports the hypothesis that

behavioral symptoms are associated with deficits in this area. However, some of those research studies utilized measures that presumably tapped into a more real world experience than a paper and pencil test.

For example, Casey and Schlosser (1994) utilized videotaped activities to examine the emotional responses of children with and without behavior problems to peer praise and found that children with disruptive behavior disorders exhibit difficulty discussing their own emotional experiences and explaining how they know what emotion they are experiencing as compared to their peers without disruptive behavior disorders. Further, Dodge et al. (1990) examined the relationship between hostile attributional biases and aggressive behavior in a group of male adolescents incarcerated in maximum security prison for juvenile offenders utilizing videotaped vignettes featuring adolescent actors portraying problematic social events. The results of this study indicated that the tendency to attribute hostile intent to others was positively correlated with undersocialized conduct disordered behaviors and number of interpersonally violent crimes.

Again, while speculation, it is possible that children and adolescents with disruptive behavior disorders can learn the "correct" or more socially acceptable response in a given situation and when presented with that situation in a non-emotional or less emotional context, such as a paper and pencil test, they can respond in a socially accepted and expected manner. However, when presented with a more real world scenario where the emotional content may be more salient, such as a videotaped vignette, children and adolescents may not be able to appraise or understand fully the nature of their emotional responses. Although, it should be noted that Cimbora and McIntosh (2003) examined the emotional responses of adolescent males with CD to stories involving a protagonist

committing an antisocial act utilizing a format that was essentially the same as that of the AMEIS. Participants were required to read short vignettes and rate characters' emotions in a given situation. The findings indicated that the CD group differed significantly from the control group in their responses to the vignettes.

In sum, the results of this study indicate support for the hypothesis that as the number of disruptive behavior symptoms exhibited by youth increases, scores on the AMEIS, a measure of emotional intelligence, decrease, especially in the areas of identifying and managing emotions. In addition, the results suggest that youth with behavior disorder symptoms demonstrate impairment in the area of understanding emotions, as measured by the AMEIS. Further, the existing literature base offers numerous findings indicating that youth with disruptive behavior disorders, such as CD and ODD, exhibit deficits in emotional competencies associated with identifying, understanding, and managing emotions. Although there also exists literature supporting the supposition that behavioral symptoms are associated with deficits in the area of using emotions, the results of the current study indicated no correlation in this area. It is possible that, given a larger sample size, a significant effect could have been observed.

Age and gender. Although not specifically hypothesized, analyses were conducted examining the relation of gender and age to both number of behavioral symptoms and emotional intelligence. It should be noted that as results indicated a significant correlation of gender with age (e.g., females in this sample tended to be older than the males), difficulty exists in separating the correlations of age and gender with behavioral symptoms and the AMEIS scores. Findings in this sample indicated that boys tended to exhibit significantly more behavioral symptoms of CD and ODD than girls. This finding

is commensurate with findings of epidemiological studies of CD, as the generally accepted prevalence estimate for CD is 6% to 16% for school-aged males and 2% to 9% for school-aged females (DSM-IV, APA, 1994). However, epidemiological studies of ODD indicate a higher prevalence rate for boys than for girls prior to adolescence, but that the rates equalize for boys and girls during adolescence (Cohen et al., 1993; DSM-IV, APA, 1994; Vitiello & Jensen, 1995). The generally accepted prevalence estimate for ODD is 2% to 16% depending on the sample population and the method of assessment (DSM-IV, APA, 1994).

One possible explanation for this discrepancy is that, in this sample, the boys were overrepresented and tended to be younger than the girls. This, coupled with the further finding that increased age was associated with decreased number of behavioral symptoms, could have produced an artificial result indicating similar rates of ODD symptomology in both boys and girls. Had the sample been larger and more equally represented in terms of gender, the trend toward rates of ODD equalizing for boys and girls during adolescence might have been observed.

In terms of the relation between age and emotional intelligence, as measured by the AMEIS, this study found that older adolescents may tend to have more developed competencies in the area of emotional intelligence, especially in the areas of identifying emotions and understanding emotions. It is interesting to note that Caruso et al. (unpublished manuscript), in a study of emotional intelligence, empathy, and analytic intelligence in adolescents, found that older adolescents outperformed younger adolescents in the area of managing emotions. The results of the current study further indicate that girls tend to score higher than boys on the AMEIS, especially in the areas of

identifying, using, and understanding emotions. Caruso et al. (unpublished manuscript) also found that adolescent girls outperformed adolescent boys in all four areas of emotional intelligence.

In sum, the results of the additional analyses indicated that the boys in this sample tended to exhibit significantly more behavioral symptoms of CD and ODD than the girls. In addition, increased age was associated with decreased number of behavioral symptoms. In terms of the relation between age and AMEIS scores, it was found that older adolescents tended to have more developed emotional intelligence competencies, especially in the areas of identifying emotions and understanding emotions. Further, it was found that girls tended to score higher than boys on the AMEIS, especially in the areas of identifying, using, and understanding emotions. While these results are interesting, it should be reiterated that given the extremely small sample size and significant correlation of gender with age, the results should be interpreted with caution.

Limitations of the Study

Although the results of the current study are noteworthy, there are limitations of the study that must be addressed. Perhaps the greatest and most important limitation of the current study is the extremely small sample size ($n = 15$). As previously stated, according to Cohen (1992), in general, a sample size of 85 is necessary to detect a medium effect size at the $p < .05$ level of significance. Given the small sample size of this study, the analysis of the correlation of individual AMEIS subtests with number of behavioral symptoms had to be eliminated due to reliability issues in interpretation. This is unfortunate, as had these correlations been conducted, the issue involving abstract

versus more realistic test items and participant performance according to number of disruptive behavioral symptoms might have been investigated further.

Further, the current sample was not only small, but it represented only a tiny fraction of the number participants solicited. Thus, this sample is highly selective and may not be representative of adolescents in the larger pool from which it was drawn. However, it is important to note that, despite the extremely small sample size, many of the obtained correlations of the AMEIS Branch scores and number of behavioral symptoms, while not statistically significant, either approached or exceeded a correlation of .30, a medium effect size. Further, statistically significant correlations were noted for Branch 1 of the AMEIS (Identifying Emotions) and number of behavioral symptoms.

An additional limitation of this study pertains to the ability to control for cognitive intelligence (IQ) in the assessment of emotional intelligence and its relationship to number of behavioral symptoms. At the outset of this study it was hypothesized that cognitive intelligence may be associated with and play a role in the development of emotional intelligence. However, given the methodological issues involved in this study (see Chapter 3), a standard IQ assessment was not utilized with each participant. Two participants received the K-BIT, 9 received the PPVT-III, and 4 participants received no IQ assessment. Thus, statistical information pertaining to the relationship of IQ to any of the other variables could not be conducted.

A further limitation of the study may lie in the nature of the dependent variable itself; that is, a paper and pencil test may not be the most effective way to assess emotional intelligence. At least some aspects of emotional intelligence may require a more real world assessment in order to obtain accurate results.

Finally, it is important to discuss the limitations of correlational research designs in general. Limitations of correlational research include the inability to infer causality from the results and the criticism that the use of correlational methods necessitates the breaking down of complex constructs into their constituent components which may oversimplify any observed relationships among variables under study (Gall, Borg, & Gall, 1996). However, the advantages of correlational research include the ability to analyze the relationship among numerous variables in one study and to make predictions regarding a particular variable based on other variables. This type of research is particularly important in psychology (Gall, et al., 1996).

Theoretical and Treatment Implications

Despite the limitations inherent to the present study, the results have important implications in terms of theoretical and treatment issues. The current research findings suggest an atypical development of emotional competencies associated with the emotional intelligence of adolescents with disruptive behavior disorders and have clear implications in the areas of future directions for research, etiology, treatment, and educational planning for disruptive behavior disorders. A more thorough explanation of the etiology of disruptive behavior disorders which includes a clear delineation of emotional development through future research efforts, will further current knowledge in the field of disruptive behavior disorders such that more effective treatments and educational plans can be developed for children exhibiting these disorders.

This is especially important due to the poor long-term prognosis that these children usually face. Children with CD typically continue to evidence a pattern of social dysfunction, problem behavior, poor school adjustment, and poor occupational

adjustment in adulthood. It has been found that as many as 84% of children diagnosed with CD receive a psychiatric diagnosis in adulthood (DSM: APA, 1994; Kazdin, 1995; Routh, & Daugherty, 1992). While it appears that the long-term prognosis of children diagnosed with ODD is better than that of children diagnosed with CD, longitudinal studies indicate that a significant percentage of children diagnosed with ODD continue to evidence either ODD or CD symptomology at follow-up (Lahey et al., 1992) and that approximately 10% of children diagnosed with ODD will be diagnosed with Antisocial Personality Disorder in adulthood (Hinshaw & Anderson, 1996).

Further, treatment for CD generally consists of some form of behavior or cognitive-behavior therapy such as cognitive problem-solving skills training, parent management training, social-cognitive interventions, family therapy, and peer and school based interventions (Kazdin, 1995; Offord & Bennett, 1994). Although research has shown that treatment can be somewhat effective in ameliorating the symptoms of CD, treatment has several limitations, including the fact that, while improvements in behavior occur, often aggressive and antisocial behaviors are not brought within normative levels. In addition, improved behaviors frequently do not generalize outside the treatment setting, nor are they maintained over time (Kazdin, 1995; Routh & Daugherty, 1992; Vitiello & Jensen, 1995).

In light of the findings described in this study regarding the atypical emotional development of children with disruptive behavior disorders, the limited research in the area of emotional development of children with specific disruptive behavior disorders, the poor long-term prognosis of these children, and the difficulty in treating these children, it behooves researchers and others in the fields of psychology and education to

continue to examine the emotional development of these children. Further, the concept of emotional intelligence itself must continue to be studied and refined, especially given the complex nature of the construct and its interdependence with other constructs such as social and cognitive development. It is only through a more thorough understanding of disruptive behavior disorders and emotional intelligence that more effective treatments and educational plans can be developed and implemented in order to remediate current deficits and stave off future psychiatric problems.

Directions for Future Research

Although tentative, the findings of the current research study suggest numerous directions for future research. First, and most importantly, an attempt should be made to replicate the current study utilizing a significantly larger sample size and a stronger design method, such as case-control design. Attention should be paid to controlling for intelligence and co-morbid conditions as well. It should be noted, that given the extreme difficulty encountered by this researcher in obtaining an appropriate sample size, a community-based sample, such as the one utilized in this study, may not be the most suitable for a case-controlled study. Instead, researchers might focus their efforts in obtaining a sample from a clinical setting or even a setting for incarcerated youth.

Further, future research should focus on delineating the emotional development of specific childhood psychiatric diagnoses, such as Conduct Disorder and Oppositional Defiant Disorder. Longitudinal studies of populations at-risk for the development of these disorders are necessary in order to chart the emotional development of these populations over the course of childhood so that extensive comparisons can be made with what is known about typical emotional development during childhood.

Future research should also focus on delineating the expression of emotional intelligence in other psychiatric populations, such as those with schizophrenia or depression. A thorough delineation of how emotional competencies may differ from the norm, or even conform to the norm, can serve to potentially improve treatment options for a variety of psychiatric illnesses.

Another important line of research includes the close examination of specific aspects of emotional development of specific forms of childhood psychopathology. For example, as stated previously, associated features of Conduct Disorder include a lack of empathy and concern for the emotional and physical well-being of others, as well as a lack of appropriate feelings of guilt and remorse (DSM-IV: APA, 1994). A study of the emotions of empathy and guilt in children with Conduct Disorder and other disruptive behavior disorders should examine their development, or lack thereof, in order to assess if these children differ quantitatively or qualitatively from the norm in terms of emotional expression, appraisal, and regulation with respect to empathy and guilt. In addition, it is important to determine how the development of empathy and guilt in children with Conduct Disorder relates to other developmental systems, such as cognition and intellect.

Finally, as it has been found that conduct problems and antisocial behavior tend to run in families (Kazdin, 1989; Kazdin, 1995), it would be interesting to assess the emotional intelligence of family members of a diagnosed child and make comparisons with family members of children without behavioral symptoms. As parent management training and family therapy are traditionally typical components of treatment of individuals with conduct problems (Kazdin, 1995; Offord & Bennett, 1994), an assessment of family

members, including parents and siblings, may offer more tailored and effective treatment options.

Appendix A

DSM-IV Diagnostic Criteria for Conduct Disorder

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.

Appendix A

DSM-IV Diagnostic Criteria for Conduct Disorder

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

Specify type based on age at onset:

Childhood-Onset Type: onset of at least one criterion characteristic of Conduct Disorder prior to age 10 years

Adolescent-Onset Type: absence of any criteria characteristic of Conduct Disorder prior to age 10 years

Specify severity:

Mild: few if any conduct problems in excess of those required to make the diagnosis **and** conduct problems cause only minor harm to others

Moderate: number of conduct problems and effect on others intermediate between "mild" and "severe"

Severe: many conduct problems in excess of those required to make the diagnosis **or** conduct problems cause considerable harm to others

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*, (4th ed.). Washington, DC: Author.

Appendix B

DSM-IV Diagnostic Criteria for Oppositional Defiant Disorder

A. A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months, during which four (or more) of the following are present:

(1) often loses temper
(2) often argues with adults
(3) often actively defies or refuses to comply with adults' requests or rules
(4) often deliberately annoys people
(5) often blames others for his or her mistakes or misbehavior
(6) is often touchy or easily annoyed by others
(7) is often angry and resentful
(8) is often spiteful or vindictive

Note: Consider a criterion met only if the behavior occurs more frequently than is typically observed in individuals of comparable age and developmental level.

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

C. The behaviors do not occur exclusively during the course of a Psychotic or Mood Disorder.

D. Criteria are not met for Conduct Disorder, and, if the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*, (4th ed.). Washington, DC: Author.

Appendix C

Mayer/Salovey Model of Emotional Intelligence

Table C1

Branches 1 and 2: Abilities and Skills

Branch	Abilities and Skills			
Branch 1: Perception, Appraisal, and Expression of Emotions	Ability to identify emotion in one's physical states, feelings, and thoughts	Ability to identify emotions in other people, designs, artwork, etc., through language, sound, appearance, and behavior	Ability to express emotions accurately and to express needs related to those feelings	Ability to discriminate between accurate and inaccurate, or honest versus dishonest expression of feeling
Branch 2: Emotional Facilitation of Thinking	Emotions prioritize thinking by directing attention to important information	Emotions are sufficiently vivid and available that they can be generated as aids to judgment and memory concerning feelings	Emotional mood swings change perspective from optimistic to pessimistic, encouraging consideration of multiple points of view	Emotional states differentially encourage specific problem-solving approaches such as when happiness facilitates inductive reasoning and creativity

Appendix C

Table C2

Branches 3 and 4: Abilities and Skills

Branch	Abilities and Skills			
Branch 3: Understanding and Analyzing Emotions; Employing Emotional Knowledge	Ability to label emotions and to recognize relations among the words and the emotions themselves, such as the relation between liking and loving	Ability to interpret the meanings that emotions convey regarding relationships, such as that sadness often accompanies a loss	Ability to understand complex feelings: simultaneous feelings of love and hate, or blends such as awe as a combination of fear and surprise	Ability to recognize likely transitions among emotions, such as the transition from anger to satisfaction, or from anger to shame
Branch 4: Reflective Regulation of Emotions to Promote Emotional and Intellectual Growth	Ability to stay open to feelings, both those that are pleasant and those that are unpleasant	Ability to reflectively engage or detach from an emotion depending upon its judged informativeness or utility	Ability to reflectively monitor emotions in relation to oneself and others, such as recognizing how clear, typical, influential, or reasonable they are	Ability to mange emotion in oneself and others by moderating negative emotions and enhancing pleasant ones, without repressing or exaggerating information they may convey

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp.3-31). New York: Basic Books.

Appendix D1

Nonclinical Consent Form: 5/25/01- 5/24/02

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.8285 FAX 212.817.1516

Dear Parents/Guardians,

We are doctoral students at the Graduate School and University Center of the City University of New York. We are conducting a study concerning the emotional and social development of children with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Enclosed is a consent form allowing your child to take part in this study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact Ms. Dalal at 516-410-8210 or suzdalal@aol.com, Ms. Cavanaugh at 609-937-7263 or jeannecava@aol.com, or Professor Philip A. Saigh at 212-817-8292. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed. Jeanne Cavanaugh, M.S.

Appendix D1

Ph.D. Program in Educational Psychology

1

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel 212.817.8285 Fax 212.817.1516

PARENT/GUARDIAN CONSENT FORM

Our names are Suzanne M. Dalal, M.S.Ed. and Jeanne Cavanaugh, M.S. and we are Doctoral students in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. We are the Principal Investigators of this project. The study titles are: 1) A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents and 2) A Comparison of Youth with Oppositional Defiant Disorder and Conduct Disorder Using the Social Skills Rating System. The studies are expected to provide information concerning the emotional and social development of children with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. We expect to have approximately 60 participants in this study. We would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. School personnel (e.g., teachers, school psychologist, social worker) and your child will be interviewed to ensure the absence of a psychological or behavioral problem, which will take about 60 minutes. Your child will take an individually administered intelligence test, which will take about 30 minutes. Your child will take an individually administered test which examines emotional development, which will take about 60 minutes. Your child will take an individually administered test which examines social skills, which will take about 60 minutes. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet, to which only we, and our advisor, will have access. If, during testing, it is determined that your child has signs of a psychological problem, we will notify you. The school will not be notified unless it is determined that your child has signs which indicate that he could be a danger to himself or others. In this extreme and unlikely event we are ethically and legally obligated to inform select school personnel of this information only so as to ensure the safety of your child and others. In this unlikely event, you will also be notified as soon as possible.

Your child will not be placed at risk during this project; however, he will be required to devote approximately 3 hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or

Appendix D1

frustrated during the testing process; however, at any time he can refuse to answer any question or decide not to participate further in the project. We want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help children with certain emotional and behavioral problems.

We may publish the results of these studies, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide us with your address and we will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact Ms. Dalal at 516-410-8210 or suzdalal@aol.com, Ms. Cavanaugh at 609-937-7263 or jeannecava@aol.com, or Professor Philip A. Saigh at 212-817-8292. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

_____ I give permission for my child _____ to participate in the study.
(child's name)

---------- ----------
(Signature of Parent/Guardian) (Date)

6-24-04-01
5/25/01 5/24/02

---------- ----------
(Signature of Investigator) (Date)

Appendix D2

Clinical Consent Form: 5/25/01- 5/24/02

Ph.D. Program in Educational Psychology

Dear Parents/Guardians,

We are doctoral students at the Graduate School and University Center of the City University of New York. We are conducting a study concerning the emotional and social development of children with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential; however, test results may become part of your child's school records. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Enclosed is a consent form allowing your child to take part in this study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact Ms. Dalal at 516-410-8210 or suzdalal@aol.com, Ms. Cavanaugh at 609-937-7263 or jeannecava@aol.com, or Professor Philip A. Saigh at 212-817-8292. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed. Jeanne Cavanaugh, M.S.

Appendix D2

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel: 212.817.3285 Fax: 212.817.1516

PARENT/GUARDIAN CONSENT FORM

Our names are Suzanne M. Dalal, M.S.Ed. and Jeanne Cavanaugh, M.S. and we are Doctoral students in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. We are the Principal Investigators of this project. The study titles are: 1) A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents and 2) A Comparison of Youth with Oppositional Defiant Disorder and Conduct Disorder Using the Social Skills Rating System. The studies are expected to provide information concerning the emotional and social development of children with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. We expect to have approximately 60 participants in this study. We would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. School personnel (e.g., teachers, school psychologist, social worker) and your child will be interviewed to determine if he shows the kinds of behaviors that are associated with Conduct Disorder and Oppositional Defiant Disorder, which will take about 60 minutes. Your child will take an individually administered intelligence test, which will take about 30 minutes. Your child will take an individually administered test which examines emotional development, which will take about 60 minutes. Your child will take an individually administered test which examines social skills, which will take about 60 minutes. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet, to which only we, and our advisor, will have access. If requested by the school, your child's test scores may become part of your child's school records; however, these records will be kept confidential by the school and will be used for treatment and educational purposes only. We will have access to your child's school records for purposes of reviewing previous test scores and classification. If it is determined that your child has signs of a psychological problem that was not identified in the past, we will notify appropriate school personnel, who will then notify you.

Your child will not be placed at risk during this project; however, he will be required to devote approximately 3 hours total to answering questions and engaging in activities for a

Appendix D2

battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he can refuse to answer any question or decide not to participate further in the project. We want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help children with certain emotional and behavioral problems. In addition, since the test results may become part of your child's school records, this will help school personnel to provide treatment and educational services which are appropriate to your child's individual needs.

We may publish the results of these studies, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide us with your address and we will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact Ms. Dalal at 516-410-8210 or suzdalal@aol.com, Ms. Cavanaugh at 609-937-7263 or jeannecava@aol.com, or Professor Philip A. Saigh at 212-817-8292. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

(Signature of Parent/Guardian)	(Date)
(Signature of Investigator)	(Date)

6-24-04-01
5/25/01 5/24/02

Appendix D3

CUNY IRB Approval Letter: 5/25/01- 5/24/02

Office of the Vice President for Research and Sponsored Programs

Committee on the Protection of Human Subjects

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.7523 FAX 212.817.1529

Date: May 25, 2001

To: Suzanne Dalal (Educational Psychology)

STUDY: 6-23-04-01 • "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents"

The Institutional Review Board (IRB) of The Graduate Center of the City University of New York has approved the above study involving humans as research subjects. This study was approved through **expedited review** based on 45CFR46.110a(9).

IRB Number: *(IRB#6-23-04-01)* This number is an IRB number at The Graduate Center which should be used on all consent forms and correspondence.

Approval Date: *May 25, 2001* **Expiration Date:** *May 24, 2002*

This approval is for a one-year period. You should receive a courtesy renewal notice approximately four weeks before the expiration of this project's approval. However, it is your responsibility to insure that an application for continuing review approval has been submitted by the required time. In addition, you are required to submit a final report of findings at the completion of the project.

Consent Form: The approved and stamped consent form must be used by all subjects. You are responsible for maintaining signed consent forms for a period of at least three years after study completion.

Reporting: The principal investigator must report to the IRB any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects.

Modifications: All modifications of protocols involving subjects must have prior approval except those involving the prevention of immediate harm to a subject which need to be reported within 24 hours to the IRB.

If you have any questions, please do not hesitate to contact me through the IRB Office at 817-7525.

Sincerely,

Richard G. Schwartz, Ph.D.
Chairperson, IRB

c: Philip Saigh

Please return one copy of this letter to the attention of Kay Powell at the above address:

Verification: By signing below, I acknowledge that I have received this letter and am aware of and agree to abide by all of its stipulations in order to maintain active approval status, including prompt reporting of adverse events/serious problems and annual continuing review. I am aware that it is my responsibility to be knowledgeable of all federal and state regulations including CUNY's Multiple Project Assurance (MPA) with the Department of Health and Human Services.

Signature of Principal Investigator 11/1/01 Date

Appendix E1

Nonclinical Consent Form: 5/15/02- 5/14/03

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel 212.817.8295 Fax 212.817.1516

Dear Parents/Guardians,

We are doctoral students at the Graduate School and University Center of the City University of New York. We are conducting a study concerning the emotional and social development of children with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Enclosed is a consent form allowing your child to take part in this study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact Ms. Dalal at 516-410-8210 or suzdalal@aol.com, Ms. Cavanaugh at 609-937-7263 or jeannecava@aol.com, or Professor Philip A. Saigh at 212-817-8292. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed. Jeanne Cavanaugh, M.S.

Appendix E1

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016 4309
TEL 212.817.8295 FAX 212.817.1518

PARENT/GUARDIAN CONSENT FORM

Our names are Suzanne M. Dalal, M.S.Ed. and Jeanne Cavanaugh, M.S. and we are Doctoral students in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. We are the Principal Investigators of this project. The study titles are: 1) A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents and 2) A Comparison of Youth with Oppositional Defiant Disorder and Conduct Disorder Using the Social Skills Rating System. The studies are expected to provide information concerning the emotional and social development of children with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. We expect to have approximately 60 participants in this study. We would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. School personnel (e.g., teachers, school psychologist, social worker) and your child will be interviewed to ensure the absence of a psychological or behavioral problem, which will take about 60 minutes. Your child will take an individually administered intelligence test, which will take about 30 minutes. Your child will take an individually administered test which examines emotional development, which will take about 60 minutes. Your child will take an individually administered test which examines social skills, which will take about 60 minutes. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet, to which only we, and our advisor, will have access. If, during testing, it is determined that your child has signs of a psychological problem, we will notify you. The school will not be notified unless it is determined that your child has signs which indicate that he could be a danger to himself or others. In this extreme and unlikely event we are ethically and legally obligated to inform select school personnel of this information only so as to ensure the safety of your child and others. In this unlikely event, you will also be notified as soon as possible.

Your child will not be placed at risk during this project; however, he will be required to devote approximately 3 hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or

Appendix E1

frustrated during the testing process; however, at any time he can refuse to answer any question or decide not to participate further in the project. We want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help children with certain emotional and behavioral problems.

We may publish the results of these studies, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide us with your address and we will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact Ms. Dalal at 516-410-8210 or suzdalal@aol.com, Ms. Cavanaugh at 609-937-7263 or jeannecava@aol.com, or Professor Philip A. Saigh at 212-817-8292. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

---------- ----------
(Signature of Parent/Guardian) (Date)

---------- ----------
(Signature of Investigator) (Date)

6-26-27-04-02
5/15/02 5/14/02

Appendix E2

Clinical Consent Form: 5/15/02- 5/14/03

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel. 212.817.8285 Fax 212.817.1516

Dear Parents/Guardians,

We are doctoral students at the Graduate School and University Center of the City University of New York. We are conducting a study concerning the emotional and social development of children with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential; however, test results may become part of your child's school records. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

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Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed. Jeanne Cavanaugh, M.S.

Appendix E2

Ph.D. Program in Educational Psychology

1

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel 212.817.8295 fax 212.817.1516

PARENT/GUARDIAN CONSENT FORM

Our names are Suzanne M. Dalal, M.S.Ed. and Jeanne Cavanaugh, M.S. and we are Doctoral students in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. We are the Principal Investigators of this project. The study titles are: 1) A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents and 2) A Comparison of Youth with Oppositional Defiant Disorder and Conduct Disorder Using the Social Skills Rating System. The studies are expected to provide information concerning the emotional and social development of children with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. We expect to have approximately 60 participants in this study. We would like permission for your child to participate in this project.

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All information gathered during this project will remain confidential and will be stored in a locked file cabinet, to which only we, and our advisor, will have access. If requested by the school, your child's test scores may become part of your child's school records; however, these records will be kept confidential by the school and will be used for treatment and educational purposes only. We will have access to your child's school records for purposes of reviewing previous test scores and classification. If it is determined that your child has signs of a psychological problem that was not identified in the past, we will notify appropriate school personnel, who will then notify you.

Your child will not be placed at risk during this project; however, he will be required to devote approximately 3 hours total to answering questions and engaging in activities for a

Appendix E2

battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he can refuse to answer any question or decide not to participate further in the project. We want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help children with certain emotional and behavioral problems. In addition, since the test results may become part of your child's school records, this will help school personnel to provide treatment and educational services which are appropriate to your child's individual needs.

We may publish the results of these studies, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide us with your address and we will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact Ms. Dalal at 516-410-8210 or suzdalal@aol.com, Ms. Cavanaugh at 609-937-7263 or jeannecava@aol.com, or Professor Philip A. Saigh at 212-817-8292. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

---------- ----------
(Signature of Parent/Guardian) (Date)

---------- ----------
(Signature of Investigator) (Date)

6-26-27-07-02
5/15/02 5/14/07

Appendix E3

CUNY IRB Approval Letter: 5/15/02- 5/14/03

Office of the Vice President for Research and Sponsored Programs

Committee on the Protection of Human Subjects

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.7523 FAX 212.817.1529

Date: May 25, 2001

To: Suzanne Dalal (Educational Psychology)

STUDY: 6-23-04-01 • "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents"

The Institutional Review Board (IRB) of The Graduate Center of the City University of New York has approved the above study involving humans as research subjects. This study was approved through **expedited review** based on 45CFR46.110a(9).

IRB Number: *(IRB#6-23-04-01)* This number is an IRB number at The Graduate Center which should be used on all consent forms and correspondence.

Approval Date: *May 25, 2001* **Expiration Date:** *May 24, 2002*

This approval is for a one-year period. You should receive a courtesy renewal notice approximately four weeks before the expiration of this project's approval. However, it is your responsibility to insure that an application for continuing review approval has been submitted by the required time. In addition, you are required to submit a final report of findings at the completion of the project.

Consent Form: The approved and stamped consent form must be used by all subjects. You are responsible for maintaining signed consent forms for a period of at least three years after study completion.

Reporting: The principal investigator must report to the IRB any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects.

Modifications: All modifications of protocols involving subjects must have prior approval except those involving the prevention of immediate harm to a subject which need to be reported within 24 hours to the IRB.

If you have any questions, please do not hesitate to contact me through the IRB Office at 817-7525.

Sincerely,

Richard G. Schwartz, Ph.D.
Chairperson, IRB

c: Philip Saigh

Please return one copy of this letter to the attention of Kay Powell at the above address:

Verification: By signing below, I acknowledge that I have received this letter and am aware of and agree to abide by all of its stipulations in order to maintain active approval status, including prompt reporting of adverse events/serious problems and annual continuing review. I am aware that it is my responsibility to be knowledgeable of all federal and state regulations including CUNY's Multiple Project Assurance (MPA) with the Department of Health and Human Services.

Suzanne Dalal 11/1/01

Signature of Principal Investigator Date

Appendix F1

Nonclinical Consent Form: 5/2/03- 4/30/04

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.8285 FAX 212.817.1516

Dear Parents/Guardians,

I am a doctoral student at the Graduate School and University Center of the City University of New York. I am conducting a study concerning the emotional functioning of youth with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Enclosed is a consent form allowing your child to take part in this study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact me at 516-316-3581 or suzdalal@aol.com or Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed.

03-04-0360
5/2/03 4/30/04

Appendix F1

1

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.8285 FAX 212.817.1516

PARENT/GUARDIAN CONSENT FORM

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator of this project. The study title is: A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents. This study is expected to provide information concerning the emotional functioning and development of youth with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. Your child will be interviewed to ensure the absence of a psychological or behavioral problem, which will take about 30-45 minutes. Your child will take an individually administered reading test, which will take about 30-45 minutes. Your child will take an individually administered test which examines emotional development, which will take about 30-45 minutes. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet in my home office, to which only I and my advisor, will have access. If, during testing, it is determined that your child has signs of a psychological problem, I will notify you. The school will not be notified unless it is determined that your child has signs which indicate that he or she could be a danger to himself or herself or others. In this extreme and unlikely event I am ethically and legally obligated to inform select school personnel of this information only so as to ensure the safety of your child and others. In this unlikely event, you will also be notified as soon as possible.

Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2 ½ to 3 ½ hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he or she can refuse to answer any question or decide not to participate further in the project. I want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's

Appendix F1

standing at school. The benefit of this study is that the information gathered may help children with certain emotional and behavioral problems.

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact me, Ms. Dalal, at 516-316-3581 or suzdalal@aol.com or my advisor, Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in this study.
(child's name)

---------- ----------
(Signature of Parent/Guardian) (Date)

---------- ----------
(Signature of Investigator) (Date)

Appendix F2

Clinical Consent Form: 5/2/03- 4/30/04

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel. 212.817.8295 fax 212.817.1516

Dear Parents/Guardians,

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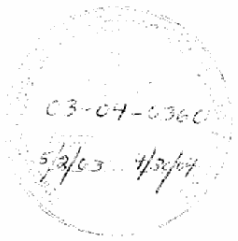
Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed.



Appendix F2

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel 212.817.8285 fax 212.817.1516

PARENT/GUARDIAN CONSENT FORM

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator of this project. The study title is: A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents. This study is expected to provide information concerning the emotional functioning and development of youth with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. Your child will be interviewed to determine if he or she shows the kinds of behaviors that are associated with Conduct Disorder and Oppositional Defiant Disorder, which will take about 60 minutes. Your child will take an individually administered test which examines emotional development, which will take about 60 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Finally, I will be allowed access to your child's most current intelligence test scores already on file at the school.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet in my home office, to which only I and my advisor, will have access. If requested by the school, your child's test scores may become part of your child's school records; however, these records will be kept confidential by the school and will be used for treatment and educational purposes only. If it is determined that your child has signs of a psychological problem that was not identified in the past, I will notify appropriate school personnel, who will then notify you.

Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2 ½ to 3 ½ hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he or she can refuse to answer any question or decide not to participate further in the project. I want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's

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standing at school. The benefit of this study is that the information gathered may help youth with certain emotional and behavioral problems. In addition, since the test results may become part of your child's school records, this will help school personnel to provide treatment and educational services which are appropriate to your child's individual needs.

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact me, Ms. Dalal, at 516-316-3581 or suzdalal@aol.com or Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Hilry Fisher, Sponsored Research, Graduate School and University Center/CUNY at 212-817-7523 or hfisher@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in the study.
(child's name)

---------- ----------
(Signature of Parent/Guardian) (Date)

---------- ----------
(Signature of Investigator) (Date)

Appendix F3

CUNY IRB Approval Letter: 5/2/03- 4/30/04

Office of the Vice President for Research and Sponsored Programs

Committee on the Protection of Human Subjects

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.7523 FAX 212.817.1529

Date: Friday, May 02, 2003

To: Dalal, Suzanne (Educational Psychology)

Study: 03-04-0360 "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents" (Continuing)

The Institutional Review Board (IRB) of The Graduate Center of the City University of New York has approved the above study involving humans as research subjects. This study was approved through expedited review based on 45CFR46.110.(a) 9.

IRB Number *(IRB #03-04-0360)* This number is an IRB number at the Graduate Center which should be used on all consent forms and correspondence.

Approval Date: *5/2/2003* **Expiration Date:** *4/30/2004*

This approval is for a one-year period. You should receive a courtesy renewal notice approximately four weeks before the expiration of this project's approval. However, it is your responsibility to insure that an application for continuing review approval has been submitted by the required time. RESEARCH MUST BE SUSPENDED IF YOUR APPROVAL HAS EXPIRED. In addition, you are required to submit a final report of findings at the completion of the project.

Consent Form: The approved and stamped consent form must be used by all subjects. You are responsible for maintaining signed consent forms for a period of at least three years after study completion.

Reporting: The principal investigator must report to the IRB any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects.

Modifications: All modifications of protocols involving subjects must have prior approval except those involving the prevention of immediate harm to a subject which need to be reported within 24 hours to the IRB.

If you have any questions, please do not hesitate to contact me through the IRB Office at 817-7525.

Sincerely,

Richard G. Schwartz, Ph.D.
Chair IRB Committee

c: Georgina Tryon

Please return one copy of this letter to the attention of Kay Powell at the above address:

Verification: By signing below, I acknowledge that I have received this letter and am aware of and agree to abide by all of its stipulations in order to maintain active approval status, including prompt reporting of adverse events/serious problems and annual continuing review. I am aware that it is my responsibility to be knowledgeable of all federal and state regulations including CUNY's Multiple Project Assurance (MPA) with the Department of Health and Human Services.

Suzanne Dalal 5/10/03

Signature of Principal Investigator Date

Appendix G1

Nonclinical Consent Form: 4/20/04- 4/19/05

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel: 212.817.8285 fax: 212.817.1516

Dear Parents/Guardians,

I am a doctoral student at the Graduate School and University Center of the City University of New York. I am conducting a study concerning the emotional functioning of youth with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential; however, test results may become part of your child's school records. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Enclosed is a consent form allowing your child to take part in this study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact me at 516-316-3581 or suzdalal@aol.com or Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed.

Graduate School & University Center / CUNY
IRB
Approved
03-04-0360
Approved: 4/20/04 Expired: 4/19/05

Appendix G1

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.8285 FAX 212.817.1516

PARENT/GUARDIAN CONSENT FORM

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator of this project. The study title is: A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents. This study is expected to provide information concerning the emotional functioning and development of youth with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. Your child will be interviewed to ensure the absence of a psychological or behavioral problem, which will take about 30-45 minutes. Your child will take an individually administered test of verbal ability, which will take about 30-45 minutes. Your child will take a test that examines emotional development, which will take about 30-45 minutes. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet in my home office, to which only I and my advisor, will have access. If requested by the school, your child's test scores may become part of your child's school records; however, these records will be kept confidential by the school and will be used for educational purposes only. If , during testing, it is determined that your child has signs of a psychological problem, I will notify appropriate school personnel, who will then notify you.

Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2 ½ to 3 ½ hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he or she can refuse to answer any question or decide not to participate further in the project. I want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help

Appendix G1

children with certain emotional and behavioral problems. In addition, since the test results may become part of your child's school records, this will help school personnel to provide educational services to your child.

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact me, Ms. Dalal, at 516-316-3581 or suzdalal@aol.com or my advisor, Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in this study.
(child's name)

_____ _____
(Signature of Parent/Guardian) (Date)

_____ _____
(Signature of Investigator) (Date)

Appendix G2

Clinical Consent Form: 4/20/04- 4/19/05

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel. 212.817.8285 Fax. 212.817.1516

Dear Parents/Guardians,

I am a doctoral student at the Graduate School and University Center of the City University of New York. I am conducting a study concerning the emotional functioning of youth with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential; however, test results may become part of your child's school records. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

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Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed.

Graduate School & University Center / CUNY
IRB
Approved
Approved: Expired:

Appendix G2

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
[illegible] 212.817.8265 fax 212.817.1516

PARENT/GUARDIAN CONSENT FORM

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator of this project. The study title is: A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents. This study is expected to provide information concerning the emotional functioning and development of youth with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. Your child will be interviewed to determine if he or she shows the kinds of behaviors that are associated with Conduct Disorder and Oppositional Defiant Disorder, which will take about 60 minutes. Your child will take a test that examines emotional development, which will take about 60 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Finally, I will be allowed access to your child's most current intelligence test scores already on file at the school. If the school does not have intelligence test scores on file, your child will take an individually administered test of verbal ability, which will take about 30-45 minutes.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet in my home office, to which only I and my advisor, will have access. If requested by the school, your child's test scores may become part of your child's school records; however, these records will be kept confidential by the school and will be used for treatment and educational purposes only. If it is determined that your child has signs of a psychological problem that was not identified in the past, I will notify appropriate school personnel, who will then notify you.

Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2½ to 3½ hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he or she can refuse to answer any question or decide not to participate further in the project. I want to

Appendix G2

stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help youth with certain emotional and behavioral problems. In addition, since the test results may become part of your child's school records, this will help school personnel to provide treatment and educational services which are appropriate to your child's individual needs.

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact me, Ms. Dalal, at 516-316-3581 or suzdalal@aol.com or Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in the study.
(child's name)

_____ _____
(Signature of Parent/Guardian) (Date)

_____ _____
(Signature of Investigator) (Date)

Appendix G3

CUNY IRB Approval Letter: 4/20/04- 4/19/05

Office of the Vice President for Research and Sponsored Programs

Committee on the Protection of Human Subjects

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel 212.817.7523 fax 212.817.1629

Date: Tuesday, April 20, 2004

To: Dalal, Suzanne (Educational Psychology)

Study: 03-04-0360 "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents" (Continuing)

The Institutional Review Board (IRB) of The Graduate Center of the City University of New York has approved the above study involving humans as research subjects. This study was approved through expedited review based on 45CFR46.110.(a) 9.

IRB Number *(IRB #03-04-0360)* This number is an IRB number at the Graduate Center which should be used on all consent forms and correspondence.

Approval Date: *4/20/2004* **Expiration Date:** *4/19/2005*

This approval is for a one-year period. You should receive a courtesy renewal notice approximately four weeks before the expiration of this project's approval. However, it is your responsibility to insure that an application for continuing review approval has been submitted by the required time. RESEARCH MUST BE SUSPENDED IF YOUR APPROVAL HAS EXPIRED. In addition, you are required to submit a final report of findings at the completion of the project.

Consent Form: The approved and stamped consent form must be used by all subjects. You are responsible for maintaining signed consent forms for a period of at least three years after study completion.

Reporting: The principal investigator must report to the IRB any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects.

Modifications: All modifications of protocols involving subjects must have prior approval except those involving the prevention of immediate harm to a subject which need to be reported within 24 hours to the IRB.

If you have any questions, please do not hesitate to contact me through the IRB Office at 817-7525.

Sincerely,

Richard G. Schwartz, Ph.D.
Chair IRB Committee

c: Georgina Tryon

Please return one copy of this letter to the attention of Kay Powell at the above address:

Verification: By signing below, I acknowledge that I have received this letter and am aware of and agree to abide by all of its stipulations in order to maintain active approval status, including prompt reporting of adverse events/serious problems and annual continuing review. I am aware that it is my responsibility to be knowledgeable of all federal and state regulations including CUNY's Multiple Project Assurance (MPA) with the Department of Health and Human Services.

Suzanne M. Dalal 5/5/04

Signature of Principal Investigator Date

Appendix H1

Nonclinical Consent Form: 4/18/05- 4/17/06

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel 212.817.8265 fax 212.817.1516

Dear Parents/Guardians,

I am a doctoral student at the Graduate School and University Center of the City University of New York. I am conducting a study concerning the emotional functioning of youth with certain emotional and behavioral problems.

Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential; however, test results may become part of your child's school records. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Enclosed is a consent form allowing your child to take part in this study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact me at 516-316-3581 or suzdalal@aol.com or Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed.

Appendix H1

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel 212.817.8285 Fax 212.817.1516

PARENT/GUARDIAN CONSENT FORM

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator of this project. The study title is: A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents. This study is expected to provide information concerning the emotional functioning and development of youth with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. Your child will be interviewed to ensure the absence of a psychological or behavioral problem, which will take about 30-45 minutes. Your child will take an individually administered test of verbal ability, which will take about 30-45 minutes. Your child will take a test that examines emotional development, which will take about 30-45 minutes. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet in my home office, to which only I and my advisor, will have access. If requested by the school, your child's test scores may become part of your child's school records; however, these records will be kept confidential by the school and will be used for educational purposes only. If , during testing, it is determined that your child has signs of a psychological problem, I will notify appropriate school personnel, who will then notify you.

Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2 ½ to 3 ½ hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he or she can refuse to answer any question or decide not to participate further in the project. I want to stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help

Appendix H1

children with certain emotional and behavioral problems. In addition, since the test results may become part of your child's school records, this will help school personnel to provide educational services to your child.

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact me, Ms. Dalal, at 516-316-3581 or suzdalal@aol.com or my advisor, Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in this study.
(child's name)

_____ _____
(Signature of Parent/Guardian) (Date)

_____ _____
(Signature of Investigator) (Date)

Appendix H2

Clinical Consent Form: 4/18/05- 4/17/06

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel. 212.817.8285 Fax 212.817.1516

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Students participating in the study will be seen during school hours. The procedure for the study is explained on the following pages. Information concerning individual students will be treated as confidential; however, test results may become part of your child's school records. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

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Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed.

Graduate School & University Center / CUNY
IRB
Approved
03-04-0360
Approval Period:
4/18/05 to 4/17/06

Appendix H2

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
Tel 212.817.8285 Fax 212.817.1516

PARENT/GUARDIAN CONSENT FORM

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator of this project. The study title is: A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents. This study is expected to provide information concerning the emotional functioning and development of youth with certain emotional and behavioral problems. In general, the information gained from this study will be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project.

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Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2½ to 3½ hours total to answering questions and engaging in activities for a battery of psychological tests. It is possible that your child may become upset or frustrated during the testing process; however, at any time he or she can refuse to answer any question or decide not to participate further in the project. I want to

Appendix H2

stress that participation is voluntary and you or your child can withdraw from the project at any time or refuse to answer any questions and this decision will not affect your child's standing at school. The benefit of this study is that the information gathered may help youth with certain emotional and behavioral problems. In addition, since the test results may become part of your child's school records, this will help school personnel to provide treatment and educational services which are appropriate to your child's individual needs.

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below. If you have any questions before, during, or after participation in the study, please contact me, Ms. Dalal, at 516-316-3581 or suzdalal@aol.com or Professor Georgianna S. Tryon at 212-817-8293 or G.Tryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu. Thank you.

CONSENT

This project has been explained to me. I have been allowed to ask questions and those questions have been answered to my satisfaction. I understand that if I do not want my child to participate, I can deny consent and there will be no repercussions. I understand that if I give my consent and I change my mind, I can withdraw consent at any time without repercussions. I have read this form, understand the project, and give my consent for my child to participate.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in the study.
(child's name)

_____ _____
(Signature of Parent/Guardian) (Date)

_____ _____
(Signature of Investigator) (Date)

Appendix H3

CUNY IRB Approval Letter: 4/18/05- 4/17/06

THE GRADUATE CENTER
THE CITY UNIVERSITY OF NEW YORK

Office of the Vice President for Research and Sponsored Programs

Committee on the Protection of Human Subjects

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.7523 FAX 212.817.1629

Date: Monday, April 18, 2005

To: Dalal, Suzanne (Educational Psychology)

Study: 03-04-0360 "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents" (Continuing)

The Institutional Review Board (IRB) of The Graduate Center of the City University of New York has approved the above study involving humans as research subjects. This study was approved through expedited review based on 45CFR46.110.(a) 9.

IRB Number *(IRB #03-04-0360)* This number is an IRB number at the Graduate Center which should be used on all consent forms and correspondence.

Approval Date: *4/18/2005* **Expiration Date:** *4/17/2006*

This approval is for a one-year period. You should receive a courtesy renewal notice approximately four weeks before the expiration of this project's approval. However, it is your responsibility to insure that an application for continuing review approval has been submitted by the required time. RESEARCH MUST BE SUSPENDED IF YOUR APPROVAL HAS EXPIRED. In addition, you are required to submit a final report of findings at the completion of the project.

Consent Form: The approved and stamped consent form must be used by all subjects. You are responsible for maintaining signed consent forms for a period of at least three years after study completion.

Reporting: The principal investigator must report to the IRB any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects.

Modifications: All modifications of protocols involving subjects must have prior approval except those involving the prevention of immediate harm to a subject which need to be reported within 24 hours to the IRB.

If you have any questions, please do not hesitate to contact me through the IRB Office at 817-7525.

Sincerely,

Richard G. Schwartz, Ph.D.
Chair, Institutional Review Board

c: Georgina Tryon

Please return one copy of this letter to the attention of Kay Powell at the above address:

Verification: By signing below, I acknowledge that I have received this letter and am aware of and agree to abide by all of its stipulations in order to maintain active approval status, including prompt reporting of adverse events/serious problems and annual continuing review. I am aware that it is my responsibility to be knowledgeable of all federal and state regulations including CUNY's Multiple Project Assurance (MPA) with the Department of Health and Human Services.

Suzanne Dalal 5/5/05

Signature of Principal Investigator Date

Appendix I1

Nonclinical Consent Form: 4/18/05- 4/17/06

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel 212.817.8285 fax 212.817.1516

Dear Parents/Guardians,

I am a doctoral student at the Graduate School and University Center of the City University of New York. I am conducting a study concerning the emotional functioning of youth with and without certain emotional and behavioral problems.

Enclosed is a consent form that describes the procedures involved in the study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact me at 516-316-3581 or Professor Georgiana S. Tryon at 212-817-8293 or GTryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, The Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed

Graduate School & University Center / CUNY
IRB
Approved
03-04-0360
Approval Expired:
4/18/05 To 4/17/06

Appendix I1

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.8285 FAX 212.817.1516

CONSENT FORM

Dear Parents/Guardians,

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator on this project, which is entitled "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents." This study is expected to provide information concerning the emotional functioning and development of youth with and without certain emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project. Your child will receive a $15 giftcard to Staples for his or her participation in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. Your child will be interviewed to ensure the absence of a psychological or behavioral problem, which will take about 30-45 minutes. Your child will take a test that examines emotional development, which will take about 30-45 minutes. Your child will take an individually administered test of verbal ability, which will take about 15-30 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day. Finally, you will be asked to complete a brief questionnaire, which will take about 10 minutes.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet in my home office, to which only I and my advisor, will have access. In the unlikely event that it is determined that your child has signs of a psychological problem that was not identified in the past, I will notify you.

Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2 to 2½ hours total to answering questions and engaging in activities for a battery of psychological tests. I want to stress that participation in this project is voluntary and you or your child can withdraw at any time or refuse to answer any questions without penalty. The benefit of this study is that the information gained from this study may be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Appendix I1

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below and return the form to your child's school as soon as possible. If you have any questions about this research, please contact me, Ms. Dalal, at 516-316-3581 or Professor Georgiana S. Tryon at 212-817-8293 or GTryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, The Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu. Thank you.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in the study.
(child's name)

---------- ----------
(Signature of Parent/Guardian) (Date)

---------- ----------
(Signature of Investigator) (Date)

Appendix I2

Clinical Consent Form: 4/18/05- 4/17/06

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel 212.817.8285 fax 212.817.1516

Dear Parents/Guardians,

I am a doctoral student at the Graduate School and University Center of the City University of New York. I am conducting a study concerning the emotional functioning of youth with and without certain emotional and behavioral problems.

Enclosed is a consent form that describes the procedures involved in the study. Please take time to review the following pages. If you choose to allow your child to participate in this study, please sign and return the consent form at your earliest convenience. If you have any questions before, during, or after participation in the study, please contact me at 516-316-3581 or Professor Georgiana S. Tryon at 212-817-8293 or GTryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, The Graduate School and University Center/CUNY at 212-817-7525 or kpowell@gc.cuny.edu.

Thank you for your consideration.

Sincerely,

Suzanne M. Dalal, M.S.Ed

Appendix I2

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
tel 212.817.8285 fax 212.817.1516

CONSENT FORM

Dear Parents/Guardians,

My name is Suzanne M. Dalal, M.S.Ed. and I am a Doctoral student in the Educational Psychology Ph.D. Program at the Graduate Center of the City University of New York. I am the Principal Investigator on this project, which is entitled "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents." This study is expected to provide information concerning the emotional functioning and development of youth with and without certain emotional and behavioral problems. I expect to have approximately 60 participants in this study. I would like permission for your child to participate in this project. Your child will receive a $15 giftcard to Staples for his or her participation in this project.

If you decide to allow your child to participate in this project, your child will be involved in the following activities, which will take place on separate days during school hours. Your child will be interviewed to determine if he or she shows the kinds of behaviors that are associated with Conduct Disorder and Oppositional Defiant Disorder, which will take about 60 minutes. Your child will take a test that examines emotional development, which will take about 60 minutes. Sessions with your child will be scheduled so they are as least disruptive as possible to your child's school day. You will be asked to complete a brief questionnaire, which will take about 10 minutes. Finally, I will be allowed access to your child's most current intelligence test scores already on file at the school. If the school does not have intelligence test scores on file, your child will take an individually administered test of verbal ability, which will take about 15-30 minutes.

All information gathered during this project will remain confidential and will be stored in a locked file cabinet in my home office, to which only I and my advisor, will have access. In the unlikely event that it is determined that your child has signs of a psychological problem that was not identified in the past, I will notify you.

Your child will not be placed at risk during this project; however, he or she will be required to devote approximately 2½ to 3 hours total to answering questions and engaging in activities for a battery of psychological tests. I want to stress that participation in this project is voluntary and you or your child can withdraw at any time or refuse to answer any questions without penalty. The benefit of this study is that the information gained from this study may be useful in planning educational and treatment plans for students with certain types of emotional and behavioral problems.

Appendix I2

I may publish the results of this study, but the names of people, or any identifying characteristics, will not be used in any publications. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

Thank you for your consideration. If you agree to allow your child to participate in this project, please sign below and return the form to your child's school as soon as possible. If you have any questions about this research, please contact me, Ms. Dalal, at 516-316-3581 or Professor Georgiana S. Tryon at 212-817-8293 or GTryon@gc.cuny.edu. If you have any questions concerning your rights or your child's rights as a participant in this study, please contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York at 212-817-7525 or kpowell@gc.cuny.edu. Thank you.

____ I give permission for my child _____ to participate in the study.
(child's name)

____ I do not give permission for my child _____ to participate in the study.
(child's name)

---------- ----------
(Signature of Parent/Guardian) (Date)

---------- ----------
(Signature of Investigator) (Date)

Appendix I3

CUNY IRB Approval Letter: 4/18/05- 4/17/06

Office of the Vice President for Research and Sponsored Programs

Committee on the Protection of Human Subjects

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.7523 FAX 212.817.1529

Date: Monday, April 18, 2005

To: Dalal, Suzanne (Educational Psychology)

Study: 03-04-0360 "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents" (Continuing)

The Institutional Review Board (IRB) of The Graduate Center of the City University of New York has approved the above study involving humans as research subjects. This study was approved through expedited review based on 45CFR46.110.(a) 9.

IRB Number *(IRB #03-04-0360)* This number is an IRB number at the Graduate Center which should be used on all consent forms and correspondence.

Approval Date: *4/18/2005* **Expiration Date:** *4/17/2006*

This approval is for a one-year period. You should receive a courtesy renewal notice approximately four weeks before the expiration of this project's approval. However, it is your responsibility to insure that an application for continuing review approval has been submitted by the required time. RESEARCH MUST BE SUSPENDED IF YOUR APPROVAL HAS EXPIRED. In addition, you are required to submit a final report of findings at the completion of the project.

Consent Form: The approved and stamped consent form must be used by all subjects. You are responsible for maintaining signed consent forms for a period of at least three years after study completion.

Reporting: The principal investigator must report to the IRB any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects.

Modifications: All modifications of protocols involving subjects must have prior approval except those involving the prevention of immediate harm to a subject which need to be reported within 24 hours to the IRB.

If you have any questions, please do not hesitate to contact me through the IRB Office at 817-7525.

Sincerely,

Richard G. Schwartz, Ph.D.
Chair, Institutional Review Board
c: Georgina Tryon

Please return one copy of this letter to the attention of Kay Powell at the above address:

Verification: By signing below, I acknowledge that I have received this letter and am aware of and agree to abide by all of its stipulations in order to maintain active approval status, including prompt reporting of adverse events/serious problems and annual continuing review. I am aware that it is my responsibility to be knowledgeable of all federal and state regulations including CUNY's Multiple Project Assurance (MPA) with the Department of Health and Human Services.

Signature of Principal Investigator 5/5/05 Date

Appendix J

Assent Form

Ph.D. Program in Educational Psychology

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The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.8285 FAX 212.817.1516

ASSENT

Script: "My name is Ms. Dalal. I am working on a project to learn more about kids' emotions, feelings, and behavior. I am going to be working with a lot of different students. We will be working together on a few different days. I will ask you questions about how you think, feel, and behave in different situations. We will also do a few short activities. Your parents/guardians have given their permission for you to participate in my project. It is up to you to decide if you want to help me by answering questions and doing the activities I just told you about. If you decide to work with me, I want you to know that if you feel uncomfortable you can stop at any time. If you want to answer some questions but not others that is fine too. Do you have any questions?"

This project has been explained to me. I understand that if I do not want to participate in this study, I do not have to and no one will treat me badly. I understand that if I agree to participate, I can change my mind and stop any time. I have read this form, understand the project, and agree to participate.

_____ I agree to participate in the study.

-- ---------------
(Signature of Student) (Date)

-- ---------------
(Signature of Investigator) (Date)

Graduate School & University Center / CUNY
IRB
Approved
03-04-0360
Approved: 4/18/05 To: Expired: 4/17/06

Appendix K

Packet Information Sent to NYCDOE Schools

Appendix K1

Cover Letter

To (building principal),

I am a graduate student in the Educational/School Psychology Ph.D. program at the City University of New York Graduate School and University Center. I am currently working on my dissertation which is an examination of emotional development and functioning in youth with conduct disorder and oppositional defiant disorder. My proposal and consent forms have been approved by my dissertation committee and IRB at the Graduate School, as well as by the New York City Proposal Review Committee. I am asking if you would consider allowing me to work with youth in your program in order to collect data for my dissertation.

The basics of this study are the following. This study will use a case control design with three groups (e.g., conduct disorder, oppositional defiant disorder, nonclinical control group), with each group consisting of at least 21 participants. The age group of the participants will be 12-17 years of age. The dependent variable is the Adolescent Multifactor Emotional Intelligence Scale (AMEIS: Mayer, Salovey, & Caruso, unpublished) which measures emotional intelligence competencies, including the ability to identify emotions, use and assimilate emotions, understand and analyze emotions, and manage or regulate emotions. Administration time for the AMEIS is approximately 30-60 minutes. Scores on the AMEIS will be compared across groups.

Other measures that will be utilized include the following:

1) Diagnostic Interview for Children and Adolescents-Revised (DICA-R). For this study, the CD, ODD, ADHD, mood disorders, anxiety disorders, and substance abuse disorders modules will be administered. Administration time ranges between 30 and 60 minutes.

2) Peabody Picture Vocabulary Test- Third Edition (PPVT-III). The PPVT-III evaluates receptive knowledge of vocabulary and screens for verbal ability. Administration time is approximately 15-20 minutes. The PPVT-III will be omitted for the special education population; however, I would require access to the most recent IQ

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test score ranges reported for students in special education once consent has been obtained from the parents.

3) Hollingshead Four Factor Index of Social Status- The Hollingshead, a measure of socioeconomic status, will be completed by the parents. Administration time is approximately 10 minutes.

4) While I do not require access to student files, for those students in special education, it would be helpful for me if school personnel could eliminate students who have a known diagnosis of a Pervasive Developmental Disorder, Mental Retardation, or Psychosis prior to my sending home the clinical consent forms. In addition it would also be helpful if school personnel could eliminate students with a history of a traumatic brain injury or a medical condition (e.g., Klinefelter's syndrome) that may potentially affect behavior prior to my sending home the clinical consent forms.

I appreciate your considering allowing me to work with students in your program in order to collect data for my dissertation. Again, I am looking to work with students between the ages of 12 and 17 years who would meet criteria for any of the three groups in my study; namely conduct disorder, oppositional defiant disorder, or the normal control group. I am including a copy of the condensed version of my proposal, both the clinical and nonclinical consent forms, letters from my dissertation committee and IRB indicating their acceptance of my study proposal, and a letter from the New York City Proposal Review Committee indicating its acceptance of my study proposal. In addition, I am including a copy of my resume, the proposal summary required by the Proposal Review Committee, and the NYC Department of Education Approval to Conduct Research form. I would be happy to provide you with any other information that you may require and to answer any questions that you may have. You can contact me at 516-593-5997, 516-316-3581, or suzdalal@aol.com. Again, I appreciate your consideration in this matter.

Thank you,

Suzanne M. Dalal, M.S.Ed.

Appendix K2

Research Proposal

Running Head: Emotional Development

A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents

Suzanne M. Dalal

Dr. Tryon (Advisor)

Committee:

Dr. Fish

Dr. Saigh

The Graduate School and University Center

The City University of New York

Dissertation Proposal

Appendix K2

Research Proposal

Introduction

Conduct Disorder (CD), with its essential feature being a persistent pattern of antisocial behavior that violates important societal norms and the rights of others, is one of the most frequent mental health problems for children today, with prevalence rates estimated to be between 6% and 16% for school-aged males and 2% and 9% for school-aged females (DSM-IV: APA, 1994). The defining characteristic of CD is the presence of a persistent pattern of behavior that violates important age-appropriate societal norms and the basic rights of others. Symptoms of conduct disorder include, but are not limited to, physical and verbal aggression, destruction of property, deceitfulness or theft, serious violations of rules and defiance toward authority, and argumentative, angry, and spiteful behavior (DSM-IV: APA, 1994). Children with CD are likely to evidence poor interpersonal relationships and deficits in social skills. They tend to be rejected by their peers and display difficulty interacting appropriately with adults (Kazdin, 1995). These individuals evidence low self-esteem and frustration tolerance, as well as irritability, temper tantrums, and reckless behavior. CD may be associated with a lower that normal intelligence and tends to be associated with academic deficits, especially in verbal skills and reading.

Children with CD can generally be characterized as lacking empathy and concern for the feelings or well-being of others. As well, they tend to lack appropriate feelings of guilt or remorse for wrongdoing. In fact, individuals with CD tend to misperceive others' intentions, frequently attributing hostile intentions to the behavior of others and then

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Research Proposal

responding with aggression that they believe is justified (DSM-IV: APA, 1994; Kazdin, 1995). There is evidence that children with disruptive behavior disorders, including CD, exhibit deficits in three areas of emotional development (e.g., emotional expression, emotional appraisal, emotional regulation) as compared to their normally developing peers. In the area of emotional expression, it appears that children with CD exhibit difficulty conforming to the emotional display rules of their culture (Casey, 1996; Casey & Schlosser, 1994; Cole, Zahn-Waxler, & Smith, 1994). In the area of emotional appraisal, these children demonstrate difficulty identifying and understanding their own and others' affective states, discussing their own and others' emotional experiences, and understanding cues that are typically used to identify their own and others' emotions (Casey, 1996; Casey & Schlosser, 1994; Cook, Greenberg, & Kusche, 1994; Eisenberg & Miller, 1987; Miller & Eisenberg, 1988, Zabel, 1979). Lastly, children with CD exhibit deficits in their ability to behaviorally and cognitively regulate their emotional states (Casey, 1996).

Investigators are beginning to underscore the importance of delineating what may be atypical emotional development in children with disruptive behavior disorders and other forms of psychopathology (e.g., Brown, 1993; Casey, 1996; Casey & Schlosser, 1994; Izard & Harris, 1995; National Advisory Mental Health Council, 1995). According to the DSM-IV (American Psychiatric Association, 1994), disruptive behavior disorders of childhood include Conduct Disorder, Oppositional Defiant Disorder, and Disruptive Behavior Disorder Not Otherwise Specified. Clinical observations of the expression of

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Research Proposal

emotion as well as theoretical work associating psychopathology with the process of emotional development imply that emotion plays an important role in the psychopathology of childhood (Casey, 1996; National Advisory Mental Health Council, 1995). In fact, according to the DSM-IV (APA, 1994), the associated features of Conduct Disorder include a lack of empathy and concern for the emotional and physical well-being of others, as well as a lack of appropriate feelings of guilt and remorse. In addition, Oppositional Defiant Disorder is characterized by excessive anger.

According to Izard & Harris (1995), the role of emotions must be taken into consideration in order to explain and provide an understanding of the symptoms, etiology, and course of various psychological disorders. Hesse and Cicchetti (1982) and Izard and Malatesta (1987) as cited by Izard and Harris (1995) state that there is evidence for a separate emotional developmental system. Finally, Izard and Harris (1995) cite evidence for the motivational function of emotions which implies that emotions are implicated in the explanation of the causes of both normal and abnormal behavior.

A delineation of the emotional development of children with CD and other disruptive behavior disorders will further current knowledge in the field such that more effective treatments and educational plans can be developed for children exhibiting these disorders. This is especially important due to the poor long-term prognosis that these children usually face. For example, children diagnosed with conduct disorder generally exhibit continued, long-term problems in the areas of social functioning, school and occupational adjustment, and behavior. In addition, these children are at-risk for psychiatric

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Research Proposal

impairment in adulthood, usually in the form of antisocial personality disorder, depression, or anxiety. As many as 84% of children diagnosed with conduct disorder receive a psychiatric diagnosis in adulthood (Kazdin, 1995).

This research study will compare the scores of CD, ODD, and nonclinical controls on the Adolescent Multifactor Emotional Intelligence Scale (AMEIS) (Caruso, Mayer, & Salovey, unpublished).

Method

Diagnostic Measures

Diagnostic Interview for Children and Adolescents-Revised. (DICA-R; Reich, Leacock, & Shanfeld, 1995). The DICA-R is a structured clinical interview designed for use with children aged 6 to 17 years. This instrument aids in the diagnosis of specific psychiatric disorders according to DSM-IV criteria. For this current study, selected portions of the DICA-R will be utilized to determine the presence or absence of CD, ODD, ADHD, mood disorders, specific phobias, and anxiety disorders.

Peabody Picture Vocabulary Test- Third Edition. (PPVT-III; Dunn & Dunn). The PPVT-III is categorized as an achievement test and is designed to evaluate receptive knowledge of vocabulary and screen for verbal ability. It is a nonverbal, multiple choice test in which pictures are presented in order to test vocabulary knowledge. The age ranges on this test are from 2 ½ through adulthood. Administration time is approximately 15-20 minutes. The PPVT-III demonstrates good reliability and correlates well with measures of achievement and intelligence. The PPVT-III will be utilized to ensure

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Research Proposal

average knowledge of receptive vocabulary and verbal ability which in turn indicates average intelligence as vocabulary is a significant indicator of intelligence.

Dependent Variable

Adolescent Multifactor Emotional Intelligence Scale. (AMEIS; Caruso, Mayer, & Salovey, unpublished). The AMEIS, which measures emotional intelligence competencies, consists of 6 subtests which are combined to create branch scores. The Faces, Designs, and Stories tasks are combined to form an Identifying Emotions branch score. The Perspectives task represents the Understanding Emotions branch score. The Synesthesia task represents the Using Emotions branch and the Managing task represents the Managing Emotions branch.

The AMEIS yields continuous scores. The individual test items are scored using consensus scoring which compares the subject's response to the proportion of sample subjects by age who selected that particular response. The authors give the following example: "On the Faces task...if 20% of the sample rates face 1 as a "5" on the anger term, then a participant who selects a "5" rating is given .20 toward a score on that task" (Caruso, Van Buren, Mayer, & Salovey, unpublished). The subtest scores are then converted to z-scores which are combined to create the branch scores. All 6 subtest z-scores are combined to create a Total AMEIS score. Scoring is effected via SPSS through the use of syntax files created by the authors. The Branch and the Total AMEIS scores can be utilized to compare groups on emotional intelligence functioning.

Demographic Information

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Research Proposal

Hollingshead Four Factor Index of Social Status. (Hollingshead, 1975).

The parents of the participants will complete the Hollingshead Four Factor Index of Social Status in order to determine the socioeconomic status (SES) of the participants. The status score is determined by combining information on education, occupation, and marital status. Higher scores are indicative of higher SES.

Research Design

This study will use a case-control design with three groups, CD, ODD, and a nonclinical control group. Scores on the AMEIS will be compared between groups. Each group will consist of at least 20 participants in order that differences between the means of the three groups may be detected.

Participant Selection

Students, age 12-14, will be involved in this study. The purpose of the study and procedures will be explained to the students. A similar verbal explanation will be provided to the parents when possible. Letters explaining the purpose of the study and procedures will be sent to parents along with consent forms. Anyone who is interested in participating in the study will return the signed consent form to the classroom teacher. Student privacy and confidentiality of results will be ensured.

Procedure

After informed consent is obtained from the students and their parents, preselected portions of the DICA-R (e.g., CD, ODD, ADHD, mood disorders, anxiety disorders, and substance-abuse disorders) will be administered to the student. Students who receive

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Research Proposal

diagnoses of CD or ODD will be placed in the appropriate group. The nonclinical control group will be comprised of students who do not meet criteria for the above mentioned diagnoses. The nonclinical control group will be similar in demographic makeup, ethnicity, and verbal ability to the CD and ODD groups. Thus, the PPVT-III will be administered to ensure average verbal ability. In order to control for the confounding effects of comorbidity, students who meet the DSM-IV criteria for more than one disorder or who meet criteria for mental retardation will be excluded from the study. Once the groups are formed, the AMEIS will be administered to participants who meet criteria for inclusion in the study and the Hollingshead Four Factor Index of Social Status will be sent home to the parents to be completed.

Data Analysis

Data analysis will begin with a Chi-square test to ensure nonsignificant differences among the comparison groups with regard to ethnicity and gender. An ANOVA will be performed to test for differences among the comparison groups with regard to SES. If these analyses indicate that significant differences exist among the comparison groups with regard to ethnicity, gender, SES, or any combination of these variables, the variables will be treated as covariates in the analysis of the AMEIS test scores.

With regard to the dependent variable, the AMEIS, the composite scores of the three groups will be analyzed using an ANOVA (or ANCOVA depending on the results of the previously described analyses). If a significant main effect is evident, post hoc analysis in the form of the Bonferroni method of multiple comparisons will be conducted in order

Appendix K2

Research Proposal

to determine where the group differences lie. Next a MANOVA (or MANCOVA should it be necessary to use ethnicity, gender, SES, or any combination of these variables as covariates) will be performed on the Branch scores and the Bonferroni method of multiple comparisons conducted in the event of a significant main effect. Finally, a MANOVA (or MANCOVA) will be conducted on the subtest scores as well as the Bonferroni test if necessary.

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References

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Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. Psychological Bulletin, 103 (3), 324-344.

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Zabel, R. H. (1979). Recognition of emotions in facial expressions by emotionally disturbed and nondisturbed children. Psychology in the Schools, 16 (1), 119-126.

Appendix K3

Research Advisor Letter

THE GRADUATE CENTER
THE CITY UNIVERSITY OF NEW YORK

Ph.D. Program in Educational Psychology

The Graduate School and University Center
The City University of New York
365 Fifth Avenue
New York, NY 10016-4309
TEL 212.817.8285 FAX 212.817.1516

September 3, 2003

Dr. Henry Solomon
Chair, NYC Department of Education IRB

Dear Dr. Solomon:

This is to certify that Ms. Suzanne Dalal presented her dissertation proposal, "A Comparative Analysis of Emotional Development in Conduct Disordered; Oppositional Defiant, and Normal Adolescents," to a committee composed of myself, Professor Philip Saigh, and Professor Marian Fish on June 3, 2003. The committee accepted her proposal without revision.

Sincerely,

Georgiana Shick Tryon, PhD
Director, School Psychology Specialization

Appendix K4

NYCDOE Approval to Conduct Research Letter

NEW YORK CITY DEPARTMENT OF EDUCATION
JOEL I. KLEIN, *Chancellor*
DIVISION OF ASSESSMENT AND ACCOUNTABILITY • 52 CHAMBERS STREET, ROOM 309, NEW YORK, N.Y. 10007

LORI MEI, Ph.D.
SENIOR INSTRUCTIONAL MANAGER
TELEPHONE (212) 374-3990
FAX (212) 374-5594

JENNIFER BELL-ELLWANGER
DEPUTY SENIOR INSTRUCTIONAL MANAGER
TELEPHONE (212) 374-3990
FAX (212) 374-5808

February 10, 2004

Suzanne Dalal
68 Horton Avenue
Lynbrook, NY 11563

Dear Ms. Dalal:

I am happy to inform you that your research study, "A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, and Normal Adolescents", has been approved by the Proposal Review Committee of the New York City Department of Education, with the following conditions:

1. Approval by this office does not guarantee access to any particular school or individual. It is your responsibility to make appropriate contacts and get the required permissions and consent before initiating the study. Participation in your research must be strictly voluntary. The following written consents are required:

    A. Principals who agree to participate must sign the enclosed **Approval to Conduct Research** form. In some districts, the superintendent must also sign. You should check with each principal to determine if the superintendent's signature is also required in that district. The signed form(s) should be returned to this office prior to beginning your research.

    B. In addition to the above written consent, all participants (e.g., administrators, teachers, parents, students) must be informed that they are not required to participate in the study, and that there are no consequences for non-participation or withdrawal.

    C. Before involving any child in your study or collecting student data, written parental consent is required.

2. Your report of the study should not include the identification of the school district, any school, student, or staff member. A coding system should be used if necessary.

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NYCDOE Approval to Conduct Research Letter

3. Please be aware that all researchers visiting schools will need to have their fingerprints on file at the Department of Education prior to the start of field work. This rule includes all research in schools conducted with students and/or staff. The cost is $115.00. See attached fingerprinting materials.

Please send a copy of your final report as soon as it is completed to Dr. Henry Solomon, Chair, PRC, Division of Assessment and Accountability, 52 Chambers Street, Room 310, New York, NY 10007; we are most interested in the results of your research.

When requesting permission to conduct research, please submit the Approval to Conduct Research form, a copy of the Proposal Summary form, and this letter to the superintendent and/or principal.

The Approval to Conduct Research forms must be returned to Dr. Solomon at the address indicated above, before you begin your research. If you have any questions about implementing your research, please call him at (212) 374-3956, or e-mail HSolomo@nycboe.net.

Sincerely,

Lori Mei, Ph.D.
Senior Instructional Manager
Division of Assessment and Accountability

c.: Georgiana Shick Tryon, Ph.D.
Henry Solomon, Ph.D.

Appendix K5

NYCDOE Research Proposal Summary

New York City Department of Education
Joel I. Klein, Chancellor

ASSESSMENT AND ACCOUNTABILITY
52 Chambers Street, New York, NY 10007

PROPOSAL SUMMARY

***To Researcher**: Please submit this completed form with 3 copies of your proposal to the Proposal Review Committee, Assessment and Accountability, 52 Chambers Street, Room 310, New York NY 10007.*

Name of Researcher Suzanne M. Dalal Telephone 516-593-5997 516-316-3581

Mailing Address 68 Hurton Ave Lynbrook NY 11563

University or Professional Affiliation CUNY Graduate School + University Center

Graduate Student ☑ Professor ☐ Other _____

If Investigator is a candidate for a degree, which degree? PhD

Department Educational Psychology

If Investigator is a grantee or independent evaluator, indicate name of agency, company funding project, address, telephone number, contact person:

Name of agency: N/A Contact person: _____

Address: _____

Title of Study A Comparative Analysis of Emotional Development in Conduct Disordered, Oppositional Defiant, + Normal Adolescents

List tests, questionnaires, interview schedules and other evaluation instruments to be used.*

Diagnostic Interview for Children + Adolescents-Revised (DISCA-R), Peabody Picture Vocabulary Test (PPVT Adolescent Multifactor Emotional Intelligence Scale (AMEIS), Hollingshead Four Factor Index of Social Status

If relevant, identify specific data from school records. most recent IQ scores for students in special education

Estimated duration of field work: 2-3 months (estimate)

If visiting schools, the researcher must have fingerprints on file at the Board of Education prior to the start of field work.

Study Subjects: Students ☑ Faculty/Administration ☐ Other _____

---

* Note: When you receive DAA approval, original copies of these instruments (no Xeroxes, if copyrighted), in addition to the signed approval letter, and a brief description of the project, should be attached to this form to obtain permission from superintendents and/or principals to conduct this research.

PRC. 6/00

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NYCDOE Approval to Conduct Research Form

NEW YORK CITY DEPARTMENT OF EDUCATION
JOEL I. KLEIN, *Chancellor*
DIVISION OF ASSESSMENT AND ACCOUNTABILITY • 52 CHAMBERS STREET, ROOM 309, NEW YORK, N.Y. 10007

LORI MEI, Ph.D.
SENIOR INSTRUCTIONAL MANAGER
TELEPHONE (212) 374-3990
FAX (212) 374-5594

JENNIFER BELL-ELLWANGER
DEPUTY SENIOR INSTRUCTIONAL MANAGER
TELEPHONE (212) 374-3990
FAX (212) 374-5908

APPROVAL TO CONDUCT RESEARCH
IN SCHOOLS/DISTRICTS

To the Superintendent/Principal:

The research study described in the Proposal Summary has been approved by the Proposal Review Committee (PRC) of the New York City Department of Education. (See the Approval Letter signed by the Executive Director of Assessment and Accountability) This researcher is now seeking principals and superintendents willing to cooperate in the study. Please sign below if you agree to have your school participate in this study.

Before beginning the study, the researcher must submit this form to the Division of Assessment and Accountability with signatures of cooperating principals.

NOTE:

Researchers who need to be in schools must have fingerprints on file at the Department of Education prior to field work.

Where data collection includes information from records, school personnel must ensure that confidentiality is preserved.

Researcher/Principal Investigator_____

Title of Study_____

Research Will Involve:

Cooperating School	District #	Grade(s)	# of Classes	# of Staff Pupils	Signature of Principal
1					
2					
3					
4					
5					

Superintendent's Signature _____ District _____

Superintendent's Signature _____ District _____

Superintendent's Signature _____ District _____

Appendix K7

Resume

SUZANNE M. DALAL

68 Horton Avenue (516) 593-5997
Lynbrook, NY 11563 suzdalal@aol.com

EDUCATION

1995- present: Ph.D. program in Educational/School Psychology, The Graduate School and University Center, New York, NY.
1992: MSEd. in Special Education, Queens College, Flushing, NY (w/ Honors).
1987: BA in Psychology, Drew University, Madison, NJ.

CERTIFICATION

New York State Certification in School Psychology- Provisional
New York State Certification in Special Education- Permanent

AFFILIATIONS

American Psychological Association
National Association of School Psychologists

AWARDS

1992: Alan Richard Hamovich Award in Special Education- for outstanding scholarship and teaching in special education.

PUBLICATIONS

Lopez, E. C., Dalal, S. M., & Yoshida, R. K. (1993). An examination of professional cultures: Implications for the collaborative consultation model. Journal of Educational and Psychological Consultation, 4 (3), 197-213.

PROFESSIONAL EXPERIENCE

Sept. 1999- Sept. 2000: Internship in School Psychology, Wantagh/BOCES Day Treatment Program, Wantagh, NY.

* Worked under the supervision of two licensed psychologists.
* Engaged in individual and family counseling.
* Co-led group counseling sessions.
* Co-led a parent support group.
* Maintained session notes for all counseling sessions.
* Administered, scored, and interpreted standardized tests of intelligence, memory, and achievement.
* Conducted and wrote social histories for families with children entering the program.
* Wrote psychological reports for students entering the program.
* Engaged in consultation with teachers regarding classroom functioning of students, including implementing schoolwide behavioral intervention plans and designing and implementing individual behavioral intervention plans as needed.
* Attended CSE meetings and team meetings.
* Conducted inservice presentations for the Day Treatment Program staff.

Appendix K7

Resume

Suzanne M. Dalal

Sept. 1998- Dec. 1998: Advanced Practicum in School Psychology, Herbert G. Birch School for Exceptional Children, Flushing, NY.

* Worked under the supervision of a certified school psychologist.
* Conducted behavioral assessments.
* Designed individual behavioral intervention plans.
* Wrote observational reports.
* Consulted with teachers regarding implementing individual behavior programs in the classroom.

Sept. 1997- June 1998: School Psychology Externship/Practicum, Munsey Park Elementary School, Manhasset, NY.

* Worked under the supervision of a certified school psychologist.
* Conducted behavioral observations and teacher and student interviews.
* Administered, scored, and interpreted standardized tests of intelligence and achievement.
* Engaged in individual counseling.
* Engaged in consultation with teachers regarding classroom management.
* Wrote integrated psychoeducational reports for annual and triennial evaluations.
* Attended prereferral and post-assessment meetings with parents.
* Attended CSE meetings and teacher support team meetings.

WORK EXPERIENCE

1989-1994: Special education teacher, Herbert G. Birch School for Exceptional Children, Flushing, NY.

* Taught children with a variety of handicapping conditions in a private school setting.
* Administered standardized and informal tests to assess student academic level and progress.
* Collaborated with related service staff in order to integrate individual therapy goals into the educational program.
* Designed and implemented individualized behavioral and educational programs.
* Wrote and executed weekly lesson plans incorporating educational, behavioral, and related service goals.
* Maintained educational and behavioral data in order to evaluate student progress.
* Delegated responsibility to and supervised teacher assistants in the classroom.

1987-1989: Assistant teacher, Herbert G. Birch School for Exceptional Children, Flushing, NY.

* Assisted classroom teacher in the running of small and large group lessons.
* Implemented individualized behavioral plans.
* Followed weekly lesson plans and communicated with classroom teacher as to student progress.

Summer 1987: Counselor, Samuel Field YM-YWHA, Little Neck, NY.

Appendix K7

Resume

Suzanne M. Dalal

* Worked with preschoolers with developmental disabilities in the context of improving daily living, socialization, and language skills.

RELATED EXPERIENCE

Fall 1986: Intern, Greystone Park Psychiatric Hospital, Greystone Park, NJ.
* Counseled patients on a weekly basis regarding discharge planning.
* Contacted patients' families concerning patient status.
* Performed administrative duties for MSW.

REFERENCES

References available upon request.

Appendix L

School Response to Requests for Study Participation

Date	# of schools contacted	School type	# of repeat contacts	# w/ no response	Total # w/ response	# w/o appropriate population	# not interested	# allowing research
5/01	35	Private SE*		27	8	2	5	1
5/01	7	RE HS (Long Island)			7		7	
3/04	25	NYC SE		14	11	3	7	1
4/04	23	NYC SE		18	5	2		3
10/04	46	NYC RE JHS		44	2		1	1
10/04	46	NYC RE HS		40	6		3	3 **
3/05	104	NYC RE JHS	44	98	6		6	
3/05	100	NYC RE HS	40	96	4		4	
5/05	49	NYC SE	32	42	7	1	5	1
Totals	435 ***		116	379	56	8	38	10

Appendix L Table (continued).

Notes. 1) * SE = Special Education, RE = Regular Education, HS = High School, JHS = Junior High School NYC = New York City Department of Education. 2) ** Two Regular Education Public High Schools dropped out of the study prior to sending home the consent forms. 3) *** This total includes the 116 schools with repeated contact. Thus, only 319 individual schools were contacted.

Appendix M

Student Responses to Requests for Study Participation

Table M1

Overview of Student Responses to Requests for Study Participation

School	School type	# of consents sent home	# repeat sendings	# of consents not returned	Total # consents returned	# returned blank	# returned no consent	# returned w/ consent	# students completed testing
1	Private SE*	130	23	88	42	14	9	19	4
2	NYC SE HS	596	367	594	2		1	1	1
3	NYC SE HS	100		100					
4	NYC SE HS	16		13	3		2	1	1
5	NYC SE HS	161		153	8		3	5	0
6	NYC RE JHS	180		180					
7	NYC RE HS	170		167	3			3	3
8	NYC SE JHS	10		7	3		2	1	0
Totals		1363	390	1302	58	14	17	30	9

Appendix M

Student Responses to Requests for Study Participation

Table M1 (continued).

Note. SE = Special Education, RE = Regular Education, HS = High School, JHS = Junior High School, NYC = New York City Department of Education. Four additional students were solicited for participation and the data from the 2 pilot study participants were used making the total number of participants to be 15.

Appendix M

Student Responses to Requests for Study Participation

Table M2

Breakdown of Student Responses to Requests for Study Participation (Schools 1-4)

School	Dates consents sent home	# of consents sent home	# repeat sendings	# of consents not returned	Total # consents returned	# returned blank	# returned no consent	# returned w/ consent
1)	4/02	46		24	22	8	1	13
	6/02	10	10	8	2	2		
	9/02	33	13	25	8	2	4	2
	5/03	21		13	8	2	4	2
	9/05	20		18	2			2
2)	9/04	150		150				
	11/04	50		50				
	1/05	199	170	197	2		1	1
	2/05	197	197	197				
3)	9/04	100		100				
4)	9/04	16		13	3		2	1

Appendix M

Student Responses to Requests for Study Participation

Table M3

Breakdown of Student Responses to Requests for Study Participation (Schools 5-8)

School	Dates consents sent home	# of consents sent home	# repeat sendings	# of consents not returned	Total # consents returned	# returned blank	# returned no consent	# returned w/ consent
5)	9/04	97		89	8		3	5
	2/05	64		64				
6)	3/05	180		180				
7)	3/05	85		85				
	10/05	85		82	3			3
8)	4/05	10		7	3		2	1

Appendix N

Participant Description

Table N1

Participant Description: Basic Information

Participant #	Age	Sex	Ethnicity	Hollingshead Score
1	13	M	African American	50
2	15	M	White	*
3	14	M	White	*
4	16	F	Hispanic	48
5	16	F	Hispanic	48
6	16	M	Hispanic	58
7	14	M	Hispanic	40
8	16	M	White	43
9	13	M	White	43
10	16	F	White	61
11	17	F	White	50
12	15	M	Hispanic	*
13	16	M	African American	*
14	17	F	White	40
15	15	F	White	51

Note. * indicates missing data.

Appendix N

Participant Description

Table N2

Participant Description: Number of Symptoms as Assessed by the DICA Modules

Participant #	ODD	CD	ADHD	SA[a]	MDD	BD	GAD
1	4	4	0	0	0	0	0
2	4	5	7	0	0	0	0
3	2	10	0	0	1	0	0
4	0	0	1	0	0	0	3
5	0	0	0	0	4	0	0
6	1	1	0	0	0	0	0
7	4	2	1	0	1	0	0
8	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
12	6	8	0	0	4	0	0
13	2	6	3	1	0	0	0
14	0	0	*	*	*	*	*
15	0	0	*	*	*	*	*

Notes. 1) [a] In terms of the DICA modules, "SA" indicates Substance Abuse, "MDD" indicates Major Depressive Disorder, "BD" indicates Bipolar Disorder, "GAD" indicates Generalized Anxiety Disorder. 2) * missing data.

Appendix N

Participant Description

Table N3

Participant Description: IQ Assessment

Participant #	KBIT	PPVT	Other
1		91	
2			avg[b]
3			avg[b]
4		95	
5		94	
6		85	
7		108	
8		107	
9		97	
10		104	
11		101	
12	92		
13	92		
14			* [c]
15			* [c]

Notes. 1) [b] The K-BIT or PPVT-III were not administered. Schools stated that intelligence was in the average range. 2) * [c] The two students participating in the pilot study were not given intelligence assessment. Both students were receiving "A's" and "B's" in their regular education public high schools.

Appendix N

Participant Description

Table N4

Participant Description: AMEIS Scores

Participant #	Branch 1	Branch 2	Branch 3	Branch 4	Total EIQ
1	104.65	104.20	102.10	103.30	103.60
2	104.65	104.20	101.95	103.30	103.45
3	105.55	104.95	102.55	103.45	104.05
4	105.40	104.20	102.10	103.15	103.75
5	105.55	104.20	101.65	103.45	103.75
6	105.25	102.85	102.40	103.45	103.45
7	106.30	103.90	102.55	103.45	104.05
8	106.45	104.05	102.10	103.90	104.05
9	106.00	103.90	101.95	103.45	103.75
10	105.70	104.95	102.25	103.45	104.05
11	106.45	104.05	102.85	103.15	104.05
12	103.75	104.05	101.65	103.00	103.15
13	106.15	105.25	102.10	103.30	104.20
14	106.90	110.50	111.70	108.25	109.30
15	107.65	105.55	92.20	121.75	106.60

Note. Branch scores (Branches 1-4) and the Total Emotional Intelligence Quotient provided for the AMEIS. z-scores were converted to standard scores with a mean of 100 and standard deviation of 15.

Appendix O

Hollingshead Four Factor Index of Social Status Data Sheet

Directions: Complete the following information for both parents or guardians. If only one parent or guardian lives within the home, complete the following information for that individual. If a parent outside the home provides financial support, then complete the sections "parent/guardian #2" for that individual.

Parent/Guardian #1:
Relationship to child: _____ Lives in home with child? YES/NO

Please check one: ___ Single; ___ Married; ___ Separated; ___ Divorced; ___ Widowed

If you are single, separated, or divorced, are you receiving support payments? YES/NO

If you are widowed, are you living on the income of your spouse's estate? YES/NO

Parent/Guardian #2:
Relationship to child: _____ Lives in home with child? YES/NO

Parent/Guardian #1:
Occupation: _____

Are you retired? YES/NO

If retired, what was your previous occupation? _____

Parent/Guardian #2:
Occupation: _____

Is parent/guardian #2 retired? YES/NO

If retired, previous occupation was: _____

CIRCLE ONE for each parent/guardian:

Parent/Guardian #1 Education		**Parent/Guardian #2 Education**	
Below 7th grade	1	Below 7th grade	1
9th grade	2	9th grade	2
10th or 11th grade	3	10th or 11th grade	3
High School Graduate	4	High School Graduate	4
More than one year of college	5	More than one year of college	5
College/University Graduate	6	College/University Graduate	6
Graduate Degree	7	Graduate Degree	7

Is the child a foster child? YES/NO

Adapted from: Hollingshead, A. B. (1975). *Four factor index of social status.* Unpublished manuscript, Yale University, Dept. of Sociology, New Haven, CT.

Appendix P

CD Scoring Sheet

CD Scoring Sheet	**Diagnosis:**	Yes __	No __
A. 3+ of the following criteria in the past 12 months, with at least 1 in the past 6 months.		Yes	No
Aggression to People and Animals			
1) bullies, threatens, or intimidates others	C6	____	____
2) often initiates physical fights	C7	____	____
3) used a weapon that can cause serious physical harm to others	C8	____	____
4) been physically cruel to people	C9	____	____
5) been physically cruel to animals	C10	____	____
6) has stolen while confronting a victim	C11	____	____
7) forced someone into sexual activity	C18	____	____
Destruction of Property			
8) deliberately engaged in fire setting with intention of causing serious damage	C12	____	____
9) deliberately destroyed others' property (not fire setting)	C13	____	____
Deceitfulness or Theft			
10) broken into someone else's house, building, or car	C14	____	____
11) lies to obtain goods or favors or to avoid obligations	C3/4	____	____
12) stolen items of nontrivial value without confronting a victim	C5	____	____
Serious Violation of Rules			
13) stays out at night despite parental prohibitions, beginning before age 13 years	C15	____	____
14) has run away from home overnight at least twice while living in parental home (or once w/out returning for a lengthy period)	C16	____	____
15) is often truant (beginning before age 13 years)	C17	____	____
B. Clinically significant impairment in social, academic, or occupational functioning.	C21	____	____

Adapted from: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*, (4th ed.). Washington, DC: Author and Reich, W., Leacock, N., & Shanfeld, K. (1995). *Diagnostic interview for children and adolescents- Revised*. St. Louis, MO: Washington U. Division of Child Psychiatry.

Appendix Q

ODD Scoring Sheet

ODD Scoring Sheet	**Diagnosis**	Yes ___	No ___
A. A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months, during which 4+ of the following are present:		Yes	No
1) loses temper	B1	____	____
2) argues with adults	B2	____	____
3) actively defies or refuses to comply with adults' requests or rules	B3	____	____
4) deliberately annoys people	B4	____	____
5) blames others for own mistakes or misbehavior	B5	____	____
6) often touchy or easily annoyed by others	B6	____	____
7) often angry and resentful	B7	____	____
8) often spiteful or vindictive	B8	____	____
B. Clinically significant impairment in social, academic, or occupational functioning.	B11-14	____	____
C. Behaviors do nor occur exclusively during the course of a psychotic or mood disorder.		____	____
D. No CD		____	____

Adapted from: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*, (4th ed.). Washington, DC: Author and Reich, W., Leacock, N., & Shanfeld, K. (1995). *Diagnostic interview for children and adolescents- Revised*. St. Louis, MO: Washington U. Division of Child Psychiatry.

Appendix R

Scatterplots of Number of ODD Symptoms and AMEIS Scores

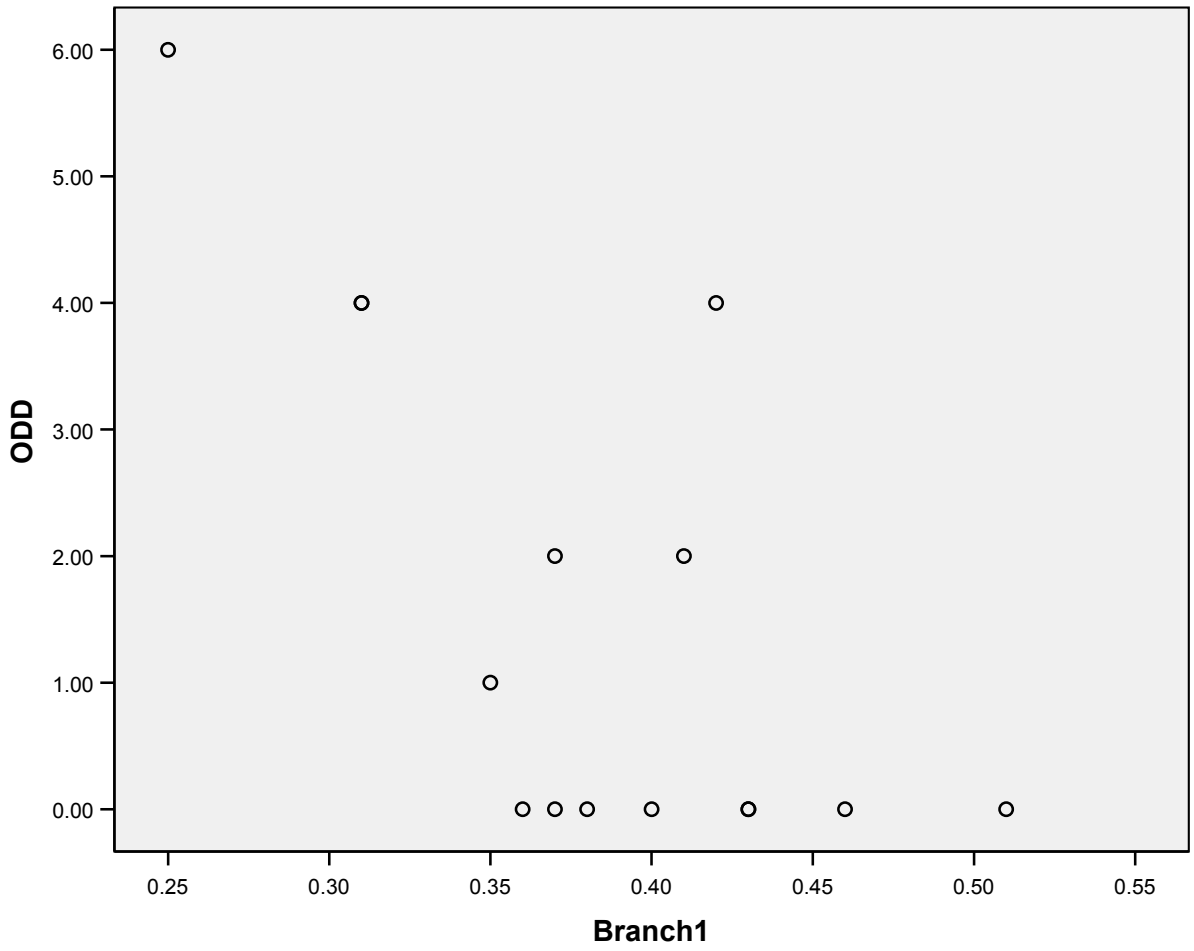

Figure R1. Scatterplot of number of ODD symptoms as assessed by the DICA and obtained *z*-scores on Branch 1 (Identifying Emotions) of the AMEIS.

Appendix R

Scatterplots of Number of ODD Symptoms and AMEIS Scores

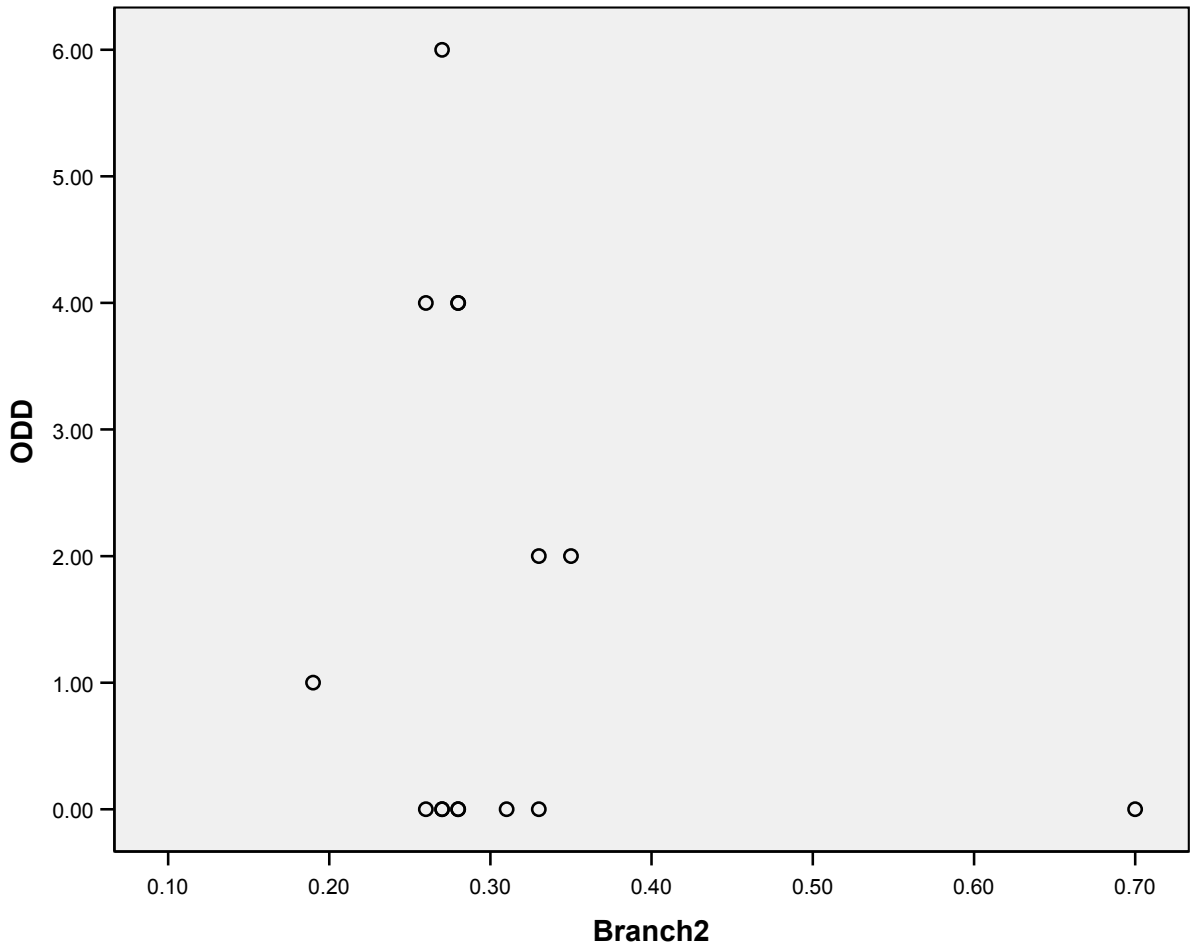

Figure R2. Scatterplot of number of ODD symptoms as assessed by the DICA and obtained *z*-scores on Branch 2 (Using Emotions) of the AMEIS.

Appendix R

Scatterplots of Number of ODD Symptoms and AMEIS Scores

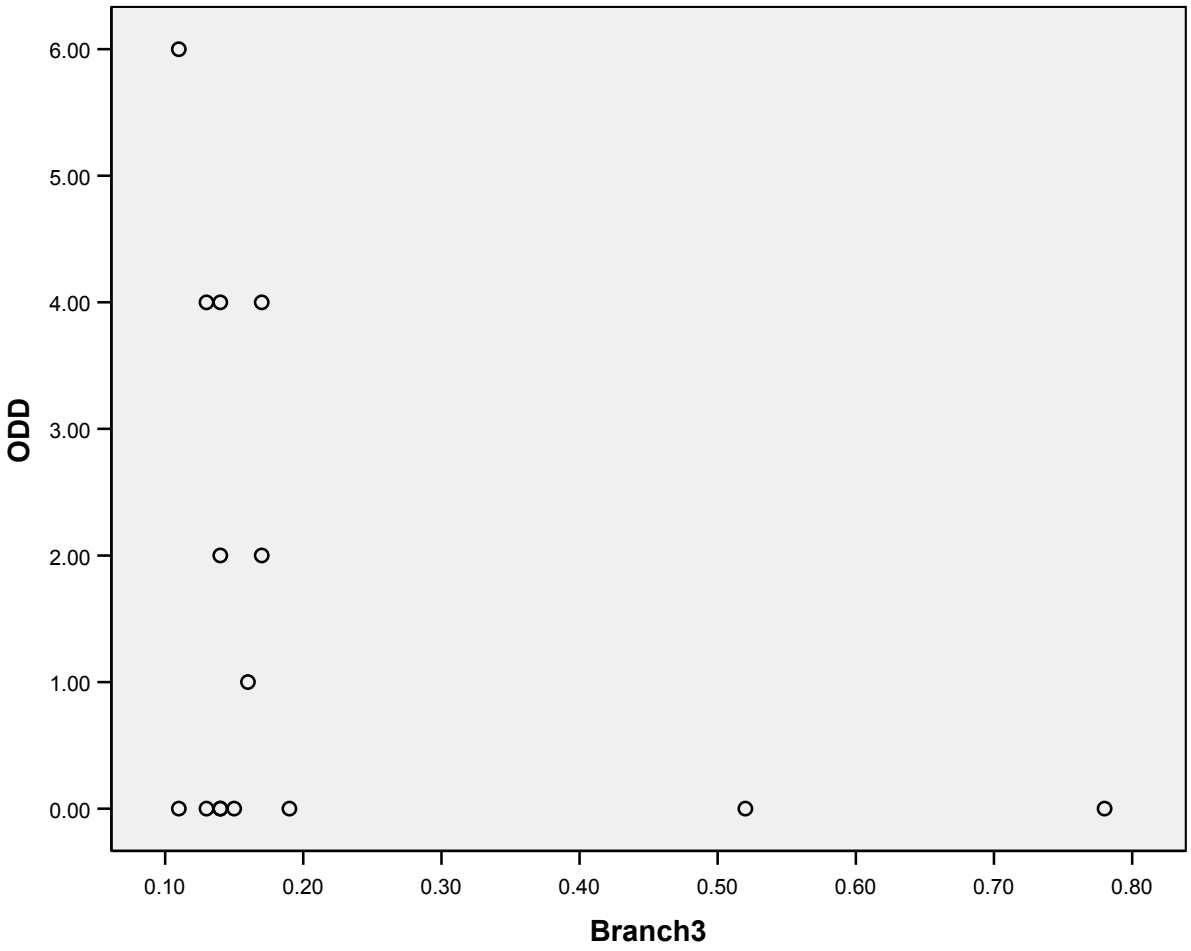

Figure R3. Scatterplot of number of ODD symptoms as assessed by the DICA and obtained *z*-scores on Branch 3 (Understanding Emotions) of the AMEIS.

Appendix R

Scatterplots of Number of ODD Symptoms and AMEIS Scores

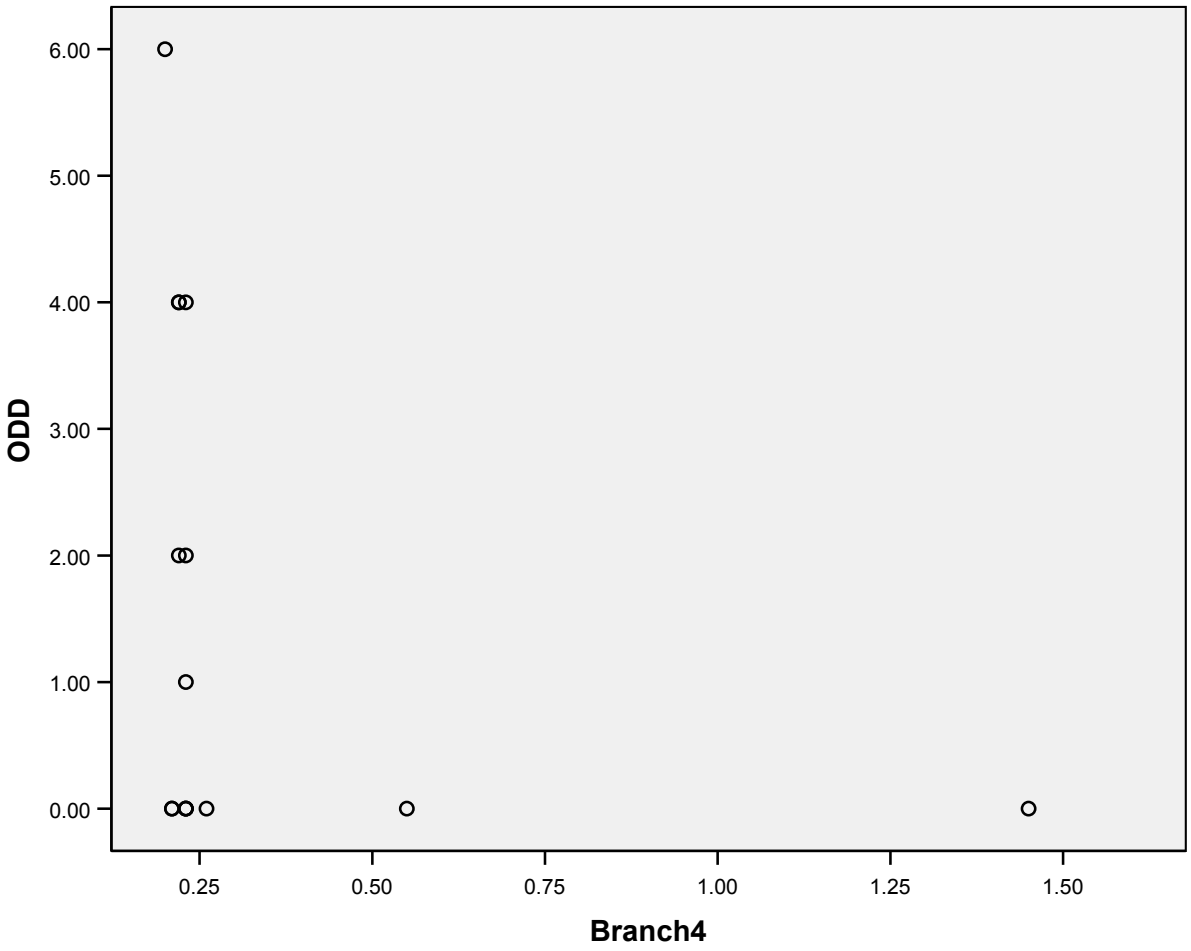

Figure R4. Scatterplot of number of ODD symptoms as assessed by the DICA and obtained *z*-scores on Branch 4 (Managing Emotions) of the AMEIS.

Appendix R

Scatterplots of Number of ODD Symptoms and AMEIS Scores

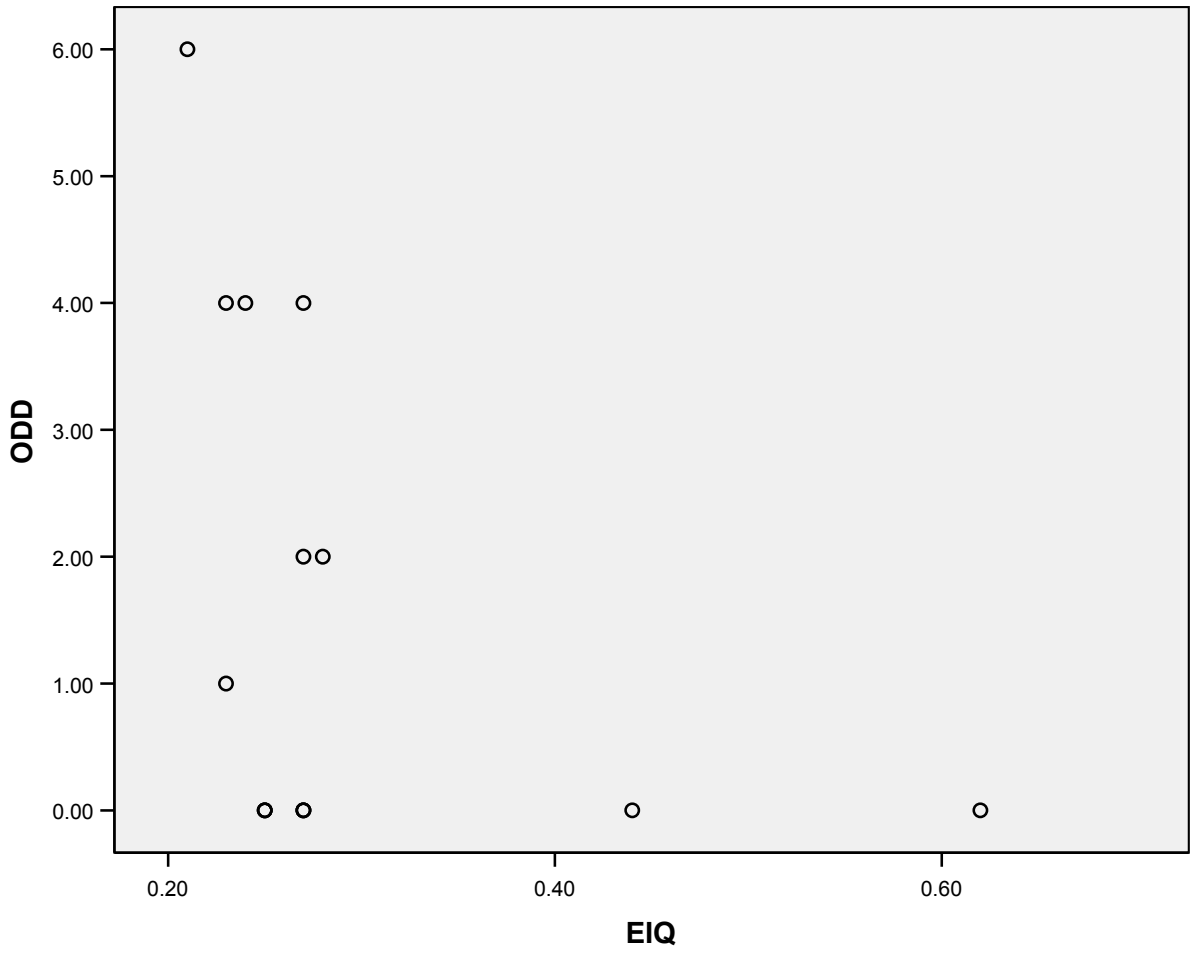

Figure R5. Scatterplot of number of ODD symptoms as assessed by the DICA and obtained *z*-scores on The Total Emotional Intelligence Quotient for the AMEIS.

Appendix S

Scatterplots of Number of CD Symptoms and AMEIS Scores

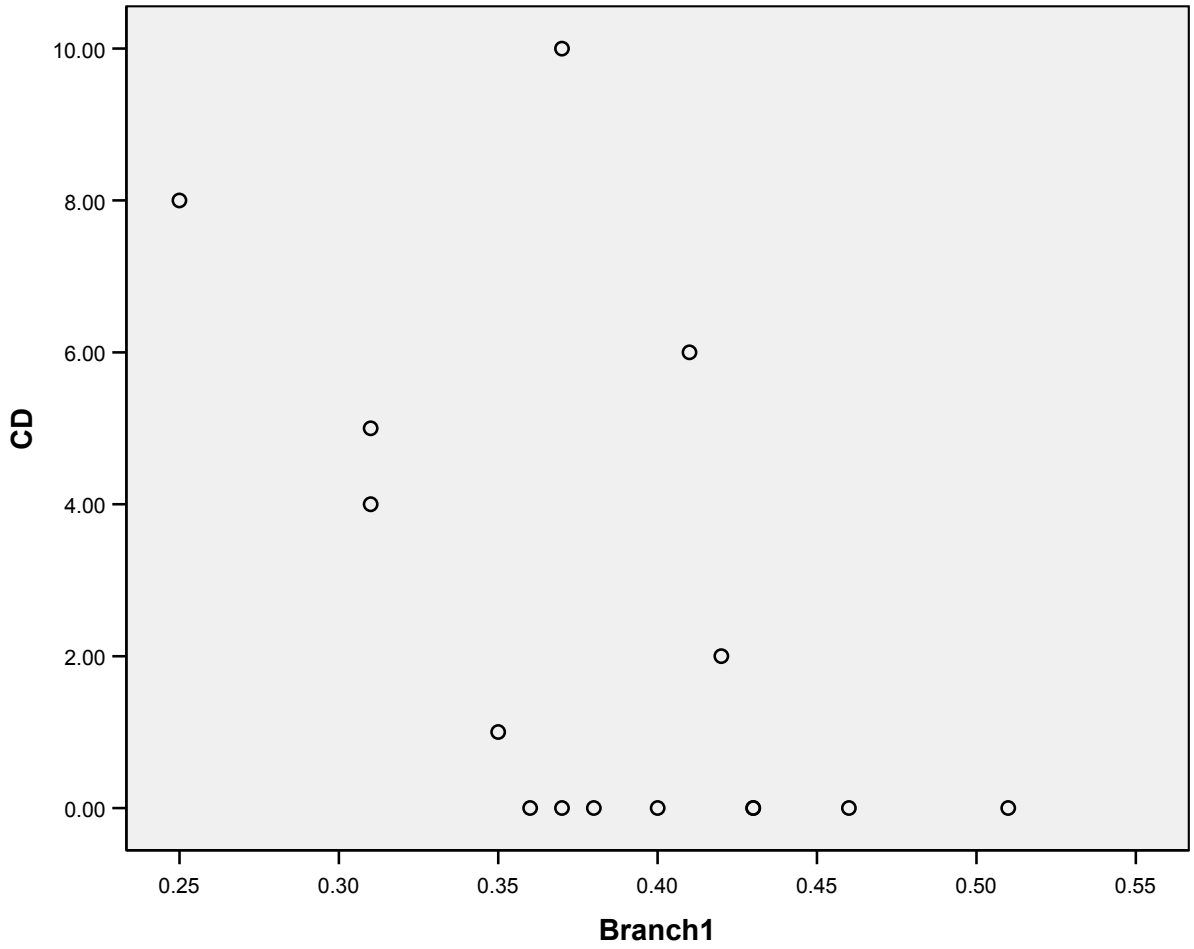

Figure S1. Scatterplot of number of CD symptoms as assessed by the DICA and obtained *z*-scores on Branch 1 (Identifying Emotions) of the AMEIS.

Appendix S

Scatterplots of Number of CD Symptoms and AMEIS Scores

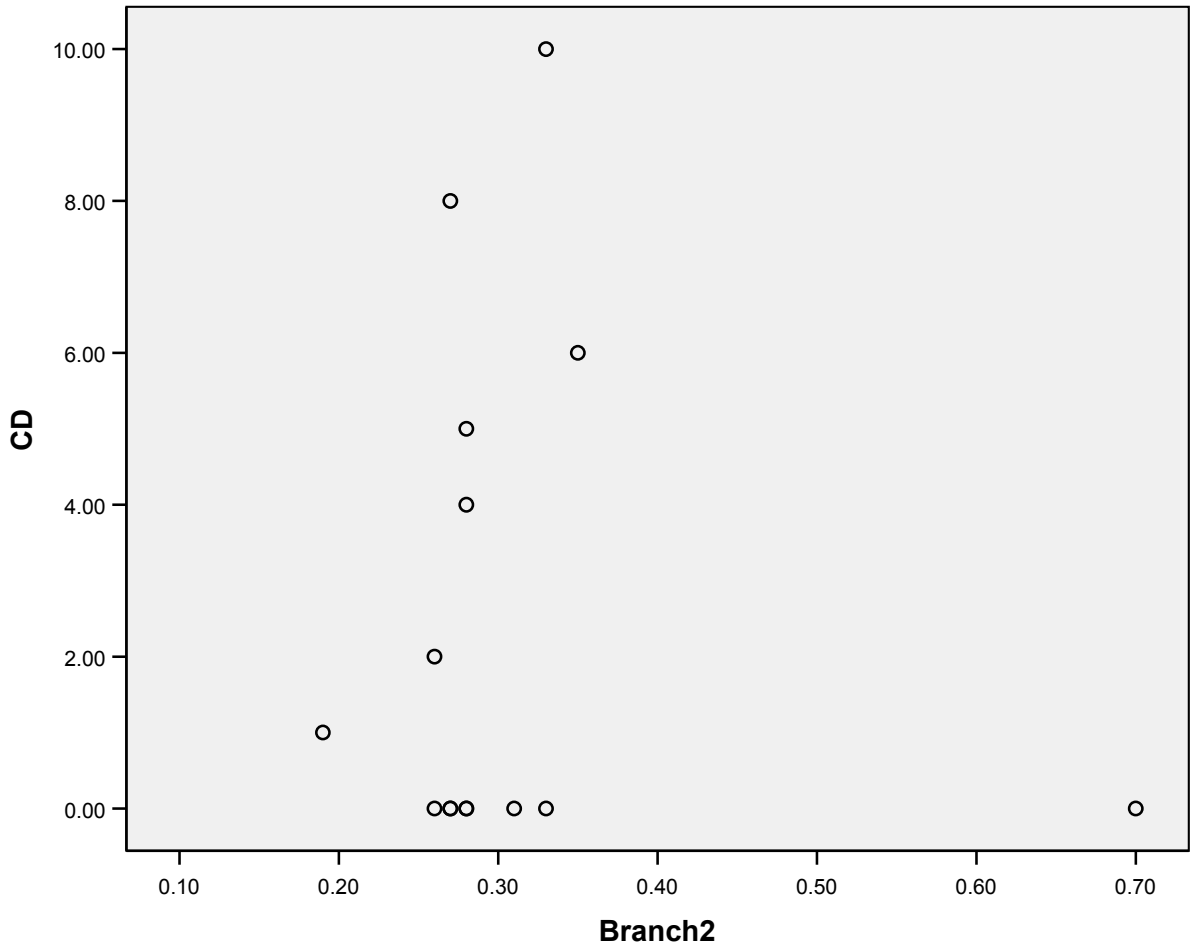

Figure S2. Scatterplot of number of CD symptoms as assessed by the DICA and obtained *z*-scores on Branch 2 (Using Emotions) of the AMEIS.

Appendix S

Scatterplots of Number of CD Symptoms and AMEIS Scores

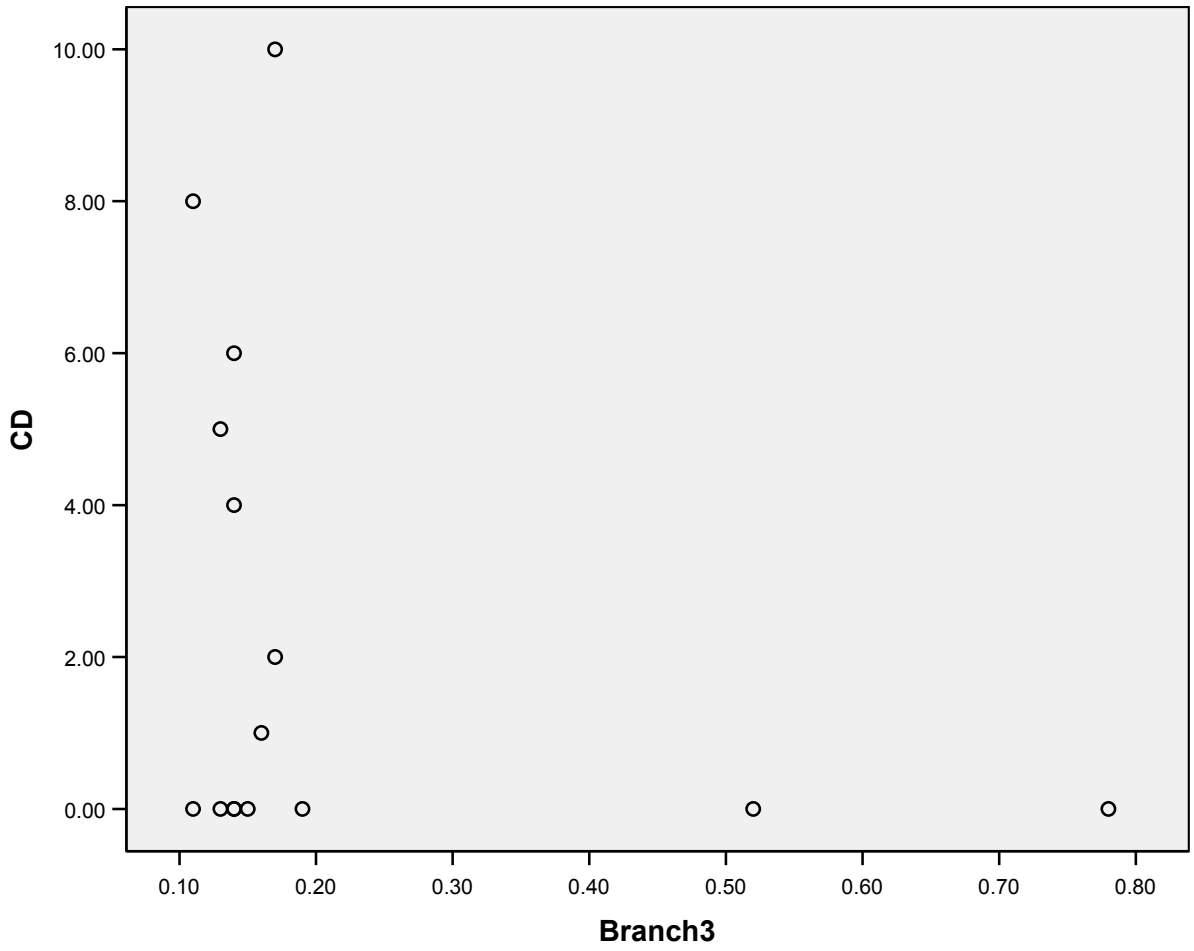

Figure S3. Scatterplot of number of CD symptoms as assessed by the DICA and obtained *z*-scores on Branch 3 (Understanding Emotions) of the AMEIS.

Appendix S

Scatterplots of Number of CD Symptoms and AMEIS Scores

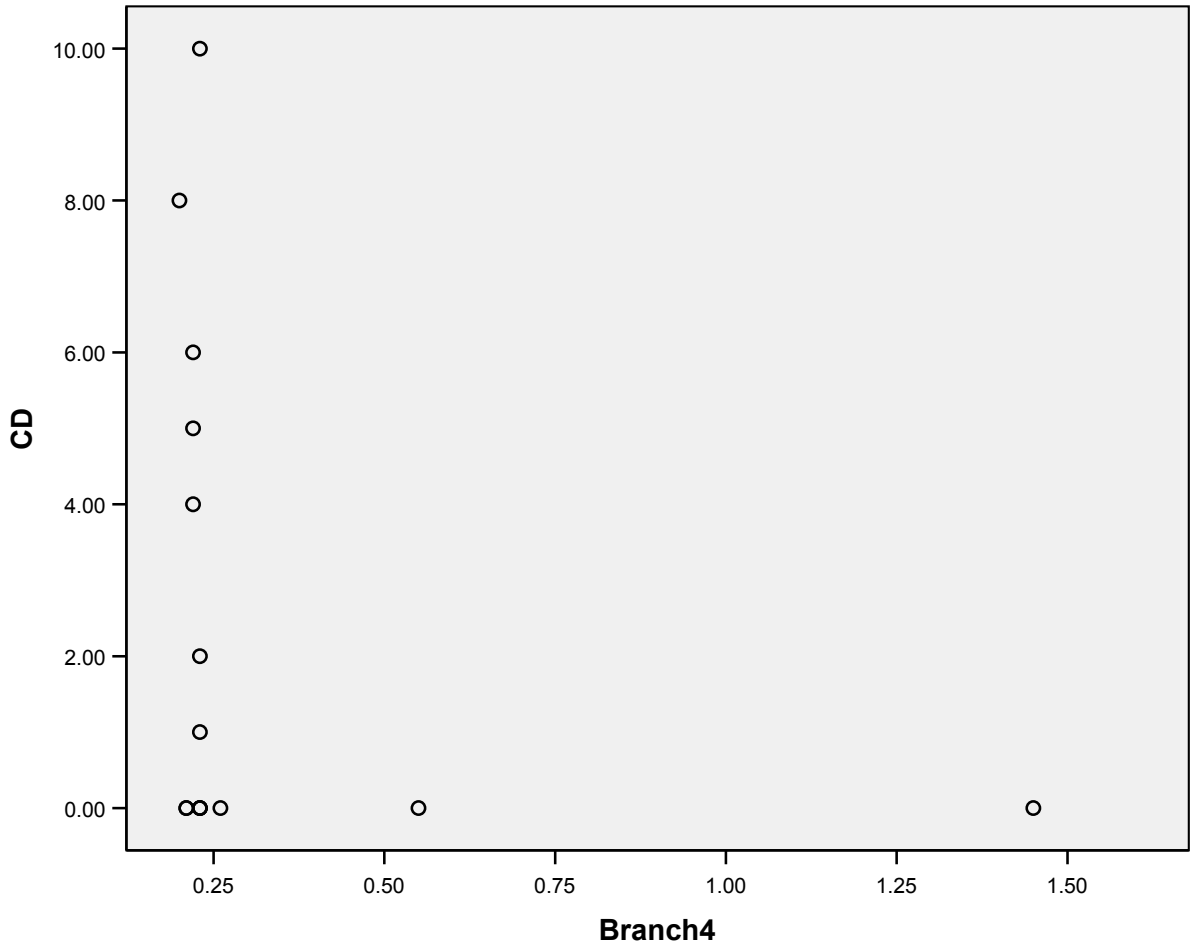

Figure S4. Scatterplot of number of CD symptoms as assessed by the DICA and obtained *z*-scores on Branch 4 (Managing Emotions) of the AMEIS.

Appendix S

Scatterplots of Number of CD Symptoms and AMEIS Scores

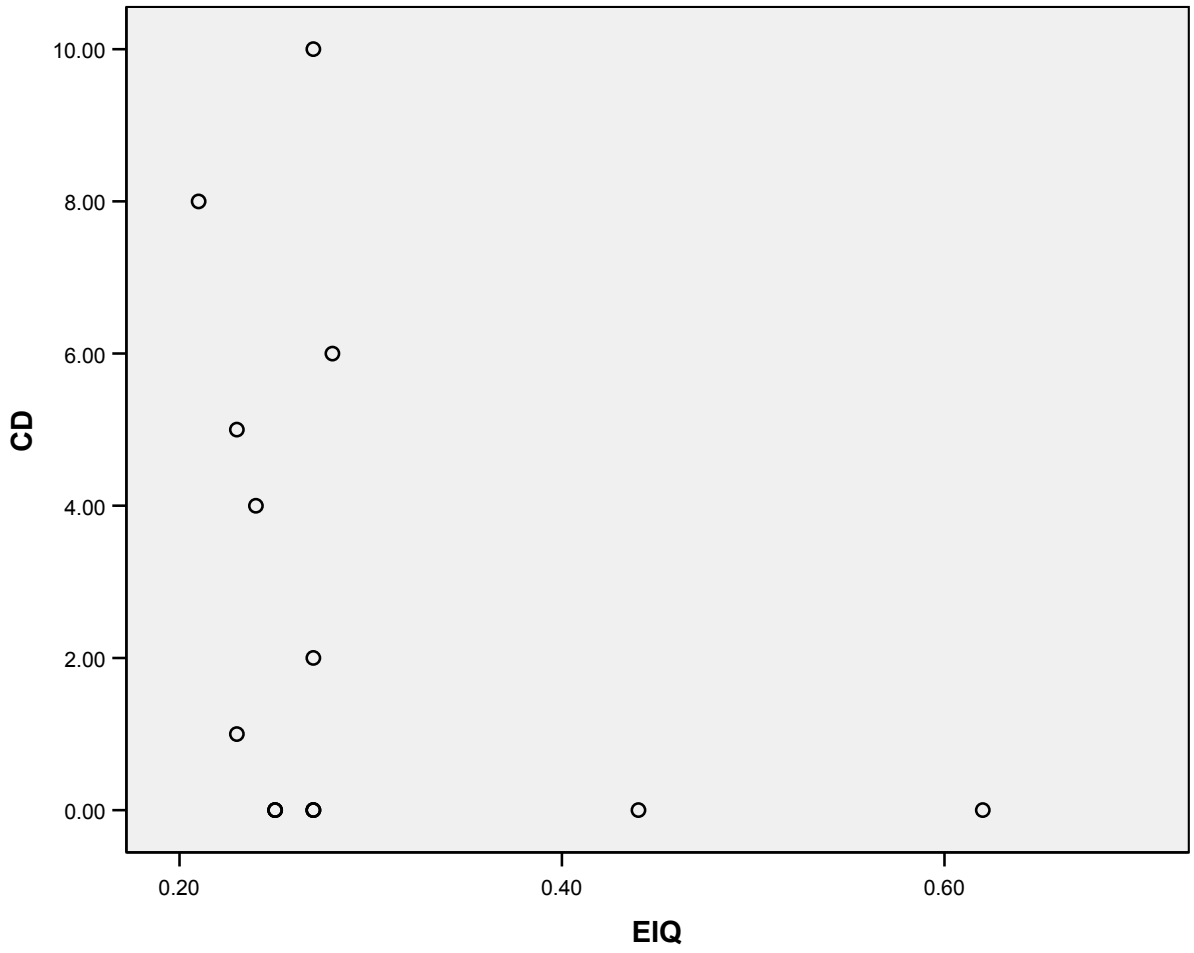

Figure S5. Scatterplot of number of CD symptoms as assessed by the DICA and obtained *z*-scores on The Total Emotional Intelligence Quotient for the AMEIS.

Appendix T

Scatterplots of Age and Gender with Number of Behavioral Symptoms

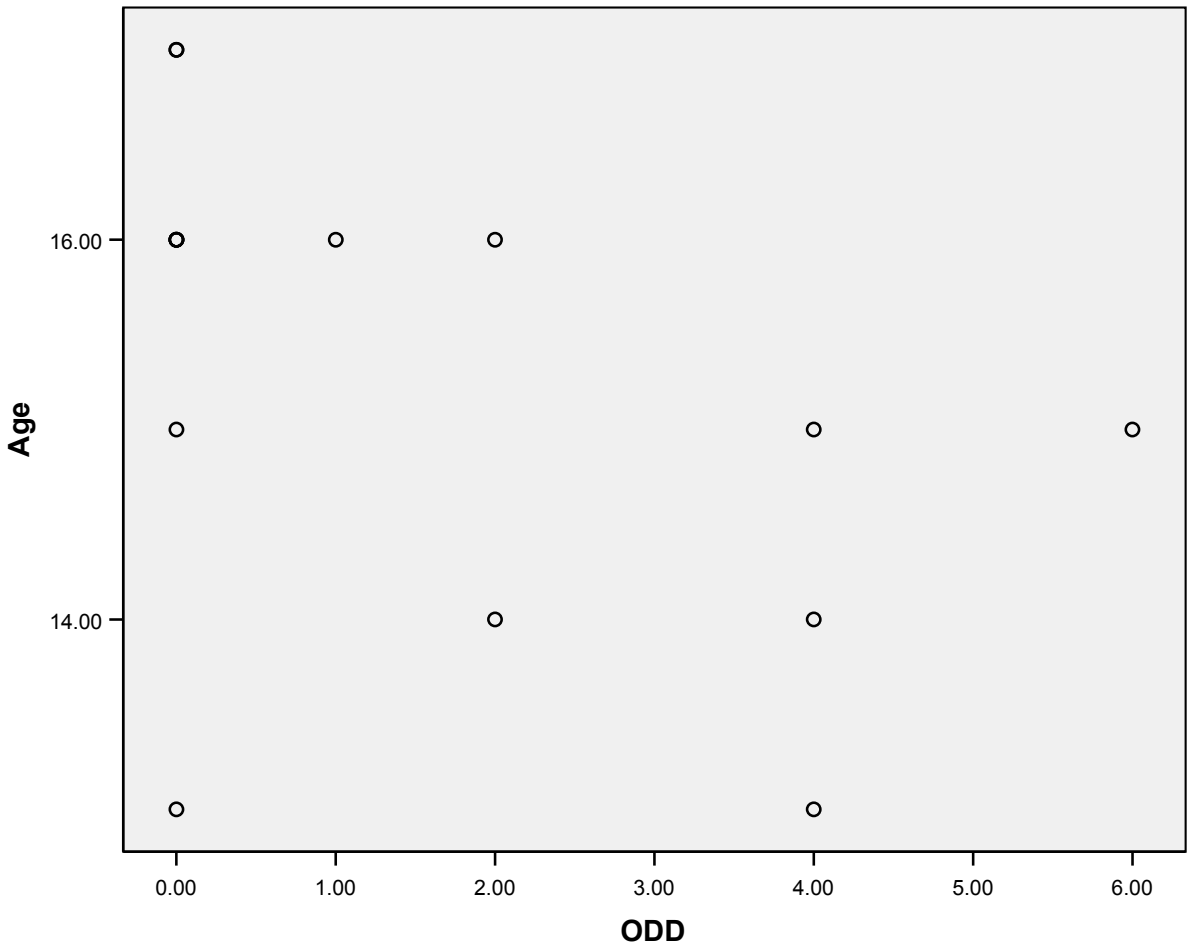

Figure T1. Scatterplot of age and number of ODD symptoms as assessed by the DICA.

Appendix T

Scatterplots of Age and Gender with Number of Behavioral Symptoms

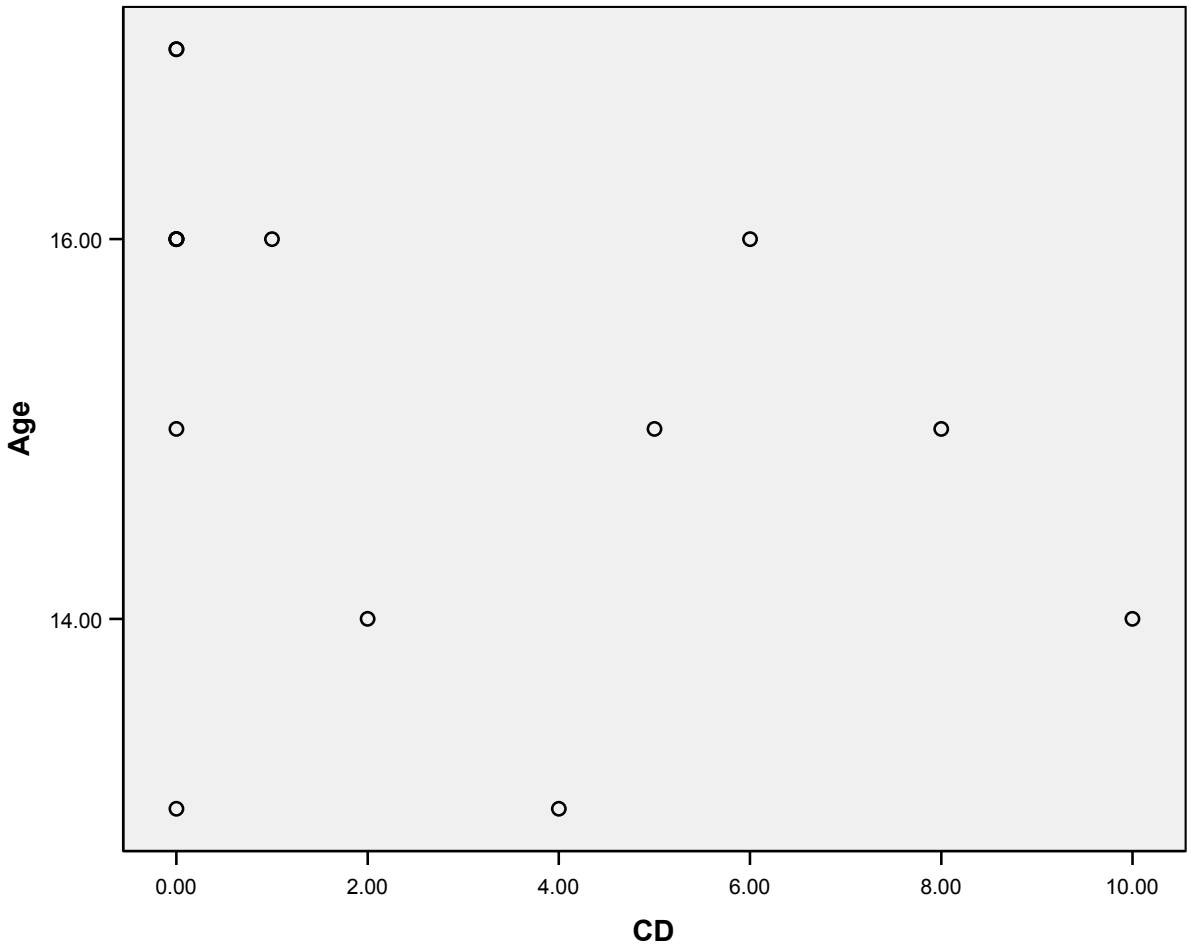

Figure T2. Scatterplot of age and number of CD symptoms as assessed by the DICA.

Appendix T

Scatterplots of Age and Gender with Number of Behavioral Symptoms

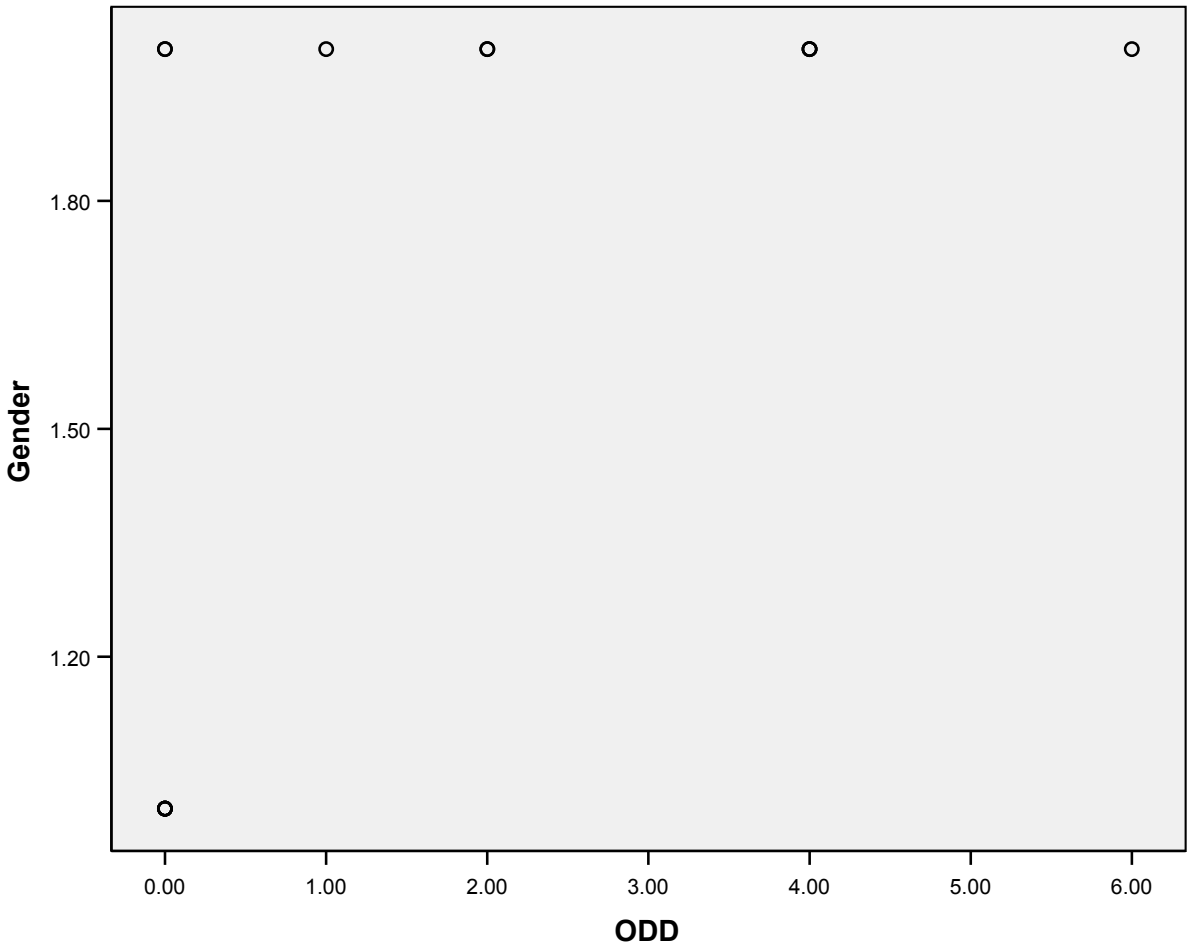

Figure T3. Scatterplot of gender ("1" = female, "2" = male) and number of ODD symptoms as assessed by the DICA.

Appendix T

Scatterplots of Age and Gender with Number of Behavioral Symptoms

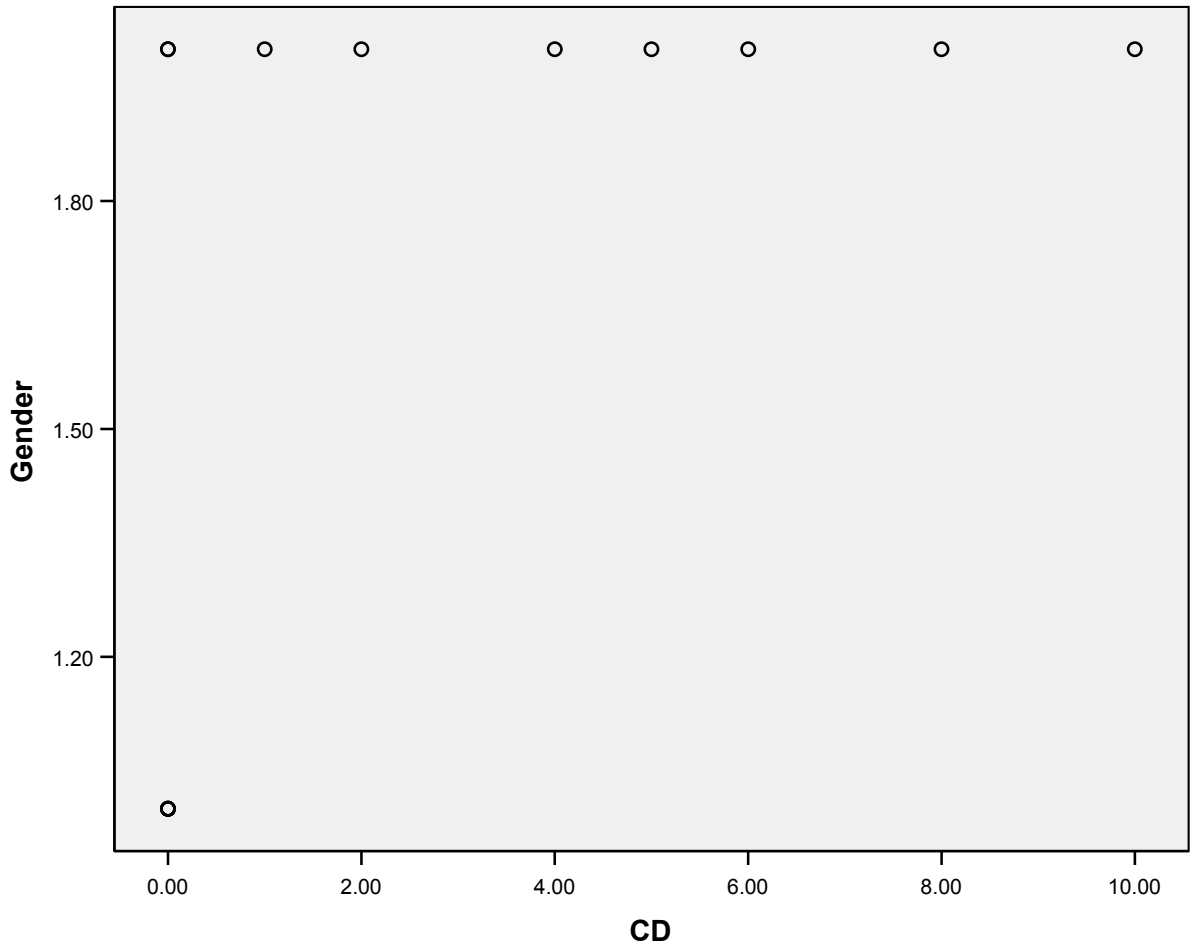

Figure T4. Scatterplot of gender ("1" = female, "2" = male) and number of CD symptoms as assessed by the DICA.

Appendix U

Scatterplots of Age and AMEIS Scores

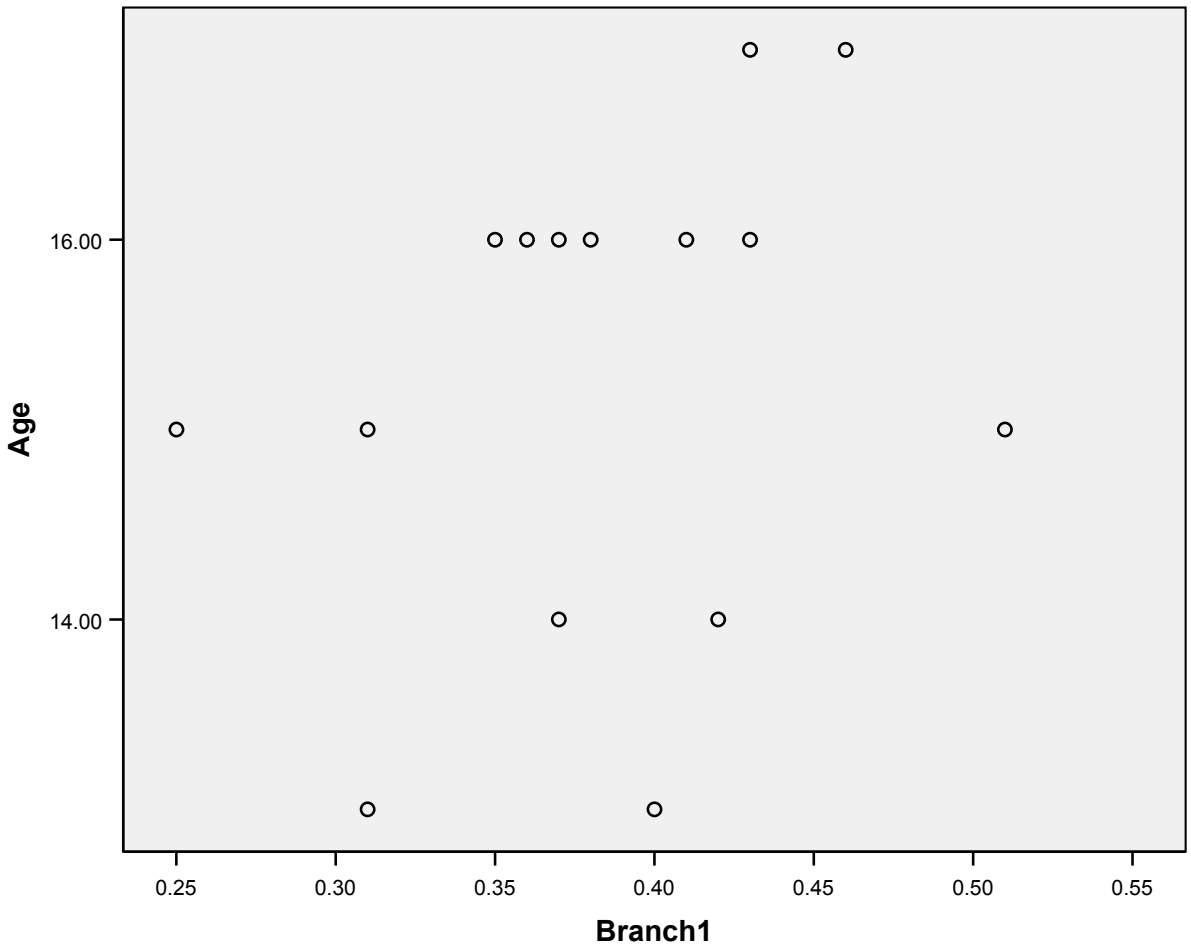

Figure U1. Scatterplot of age and achieved *z*-scores on Branch 1 (Identifying Emotions) of the AMEIS.

Appendix U

Scatterplots of Age and AMEIS Scores

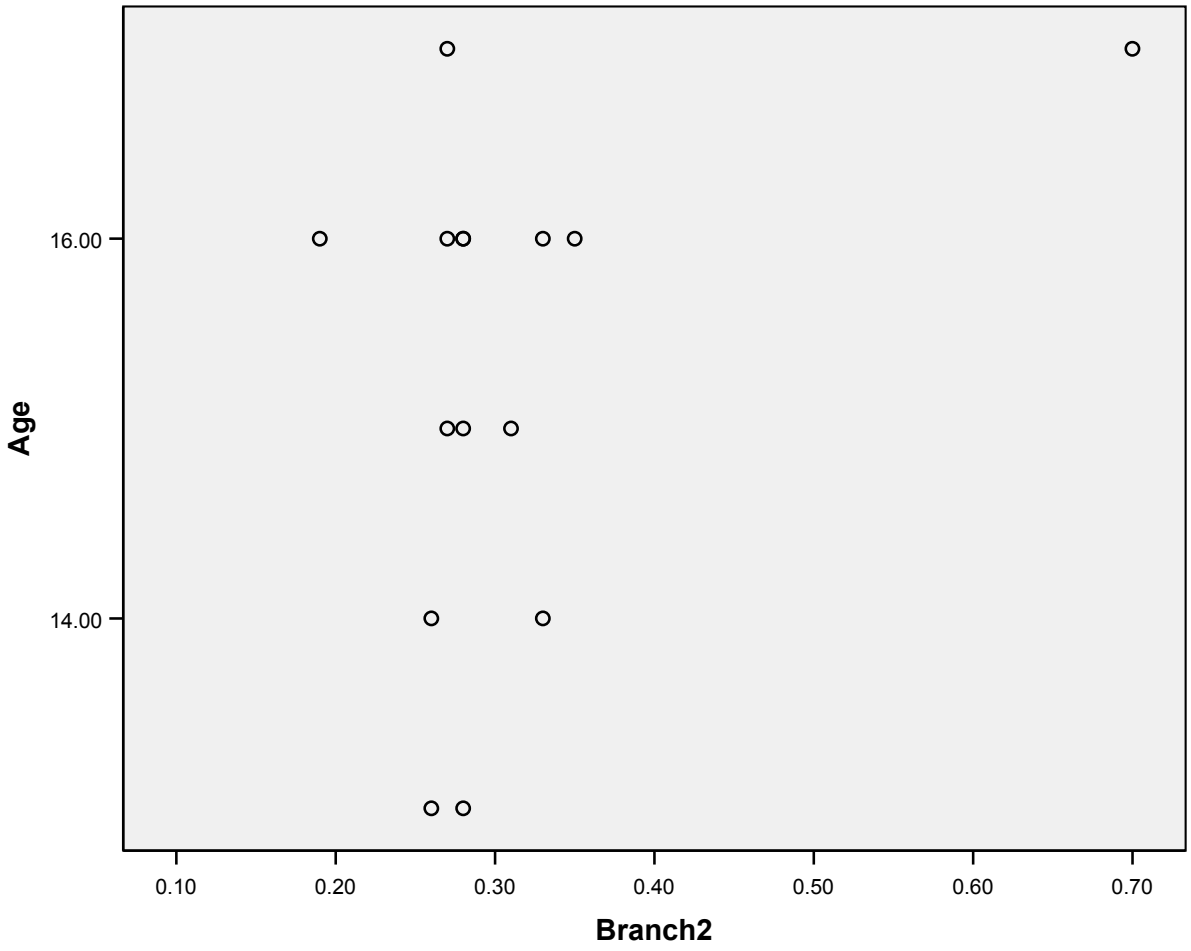

Figure U2. Scatterplot of age and achieved *z*-scores on Branch 2 (Using Emotions) of the AMEIS.

Appendix U

Scatterplots of Age and AMEIS Scores

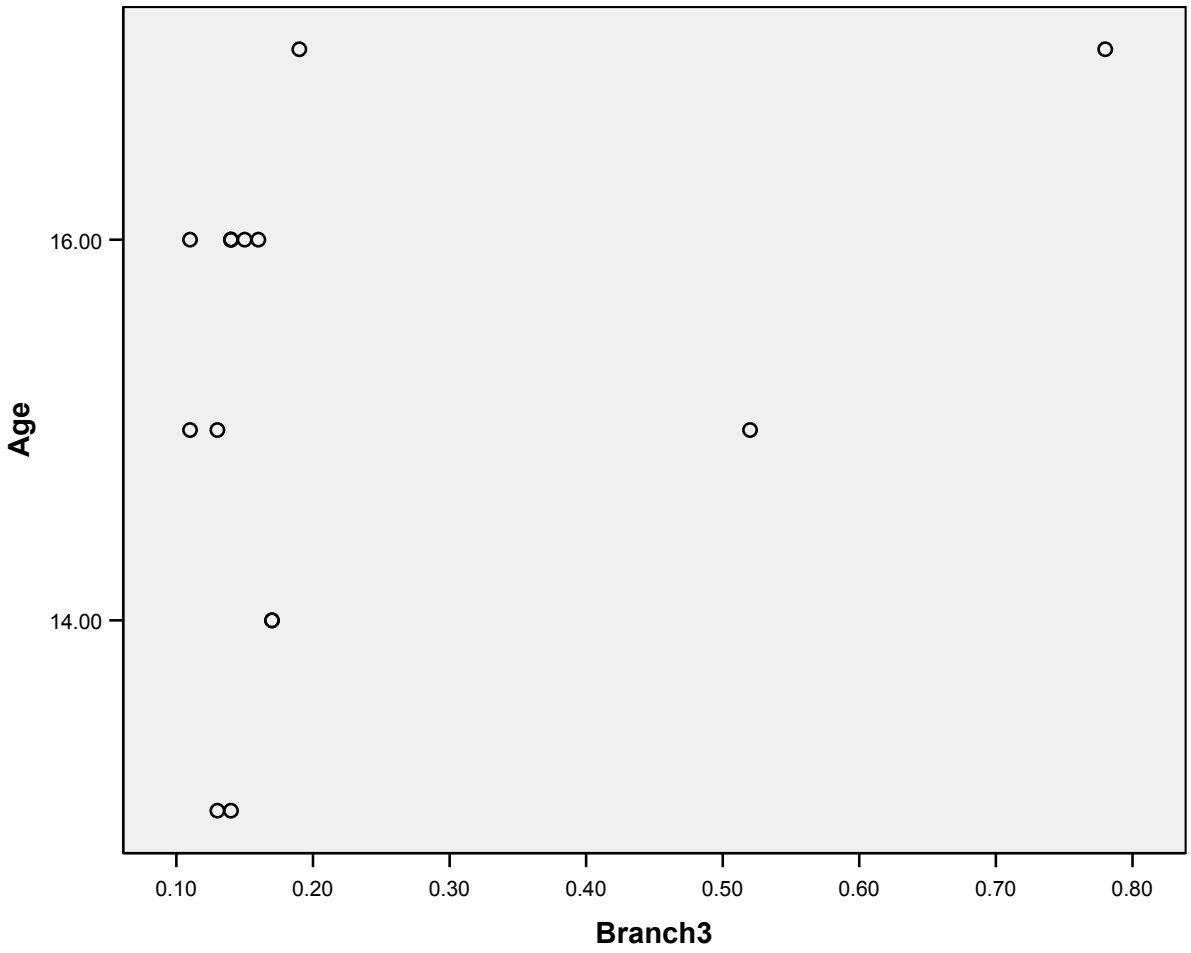

Figure U3. Scatterplot of age and achieved *z*-scores on Branch 3 (Understanding Emotions) of the AMEIS.

Appendix U

Scatterplots of Age and AMEIS Scores

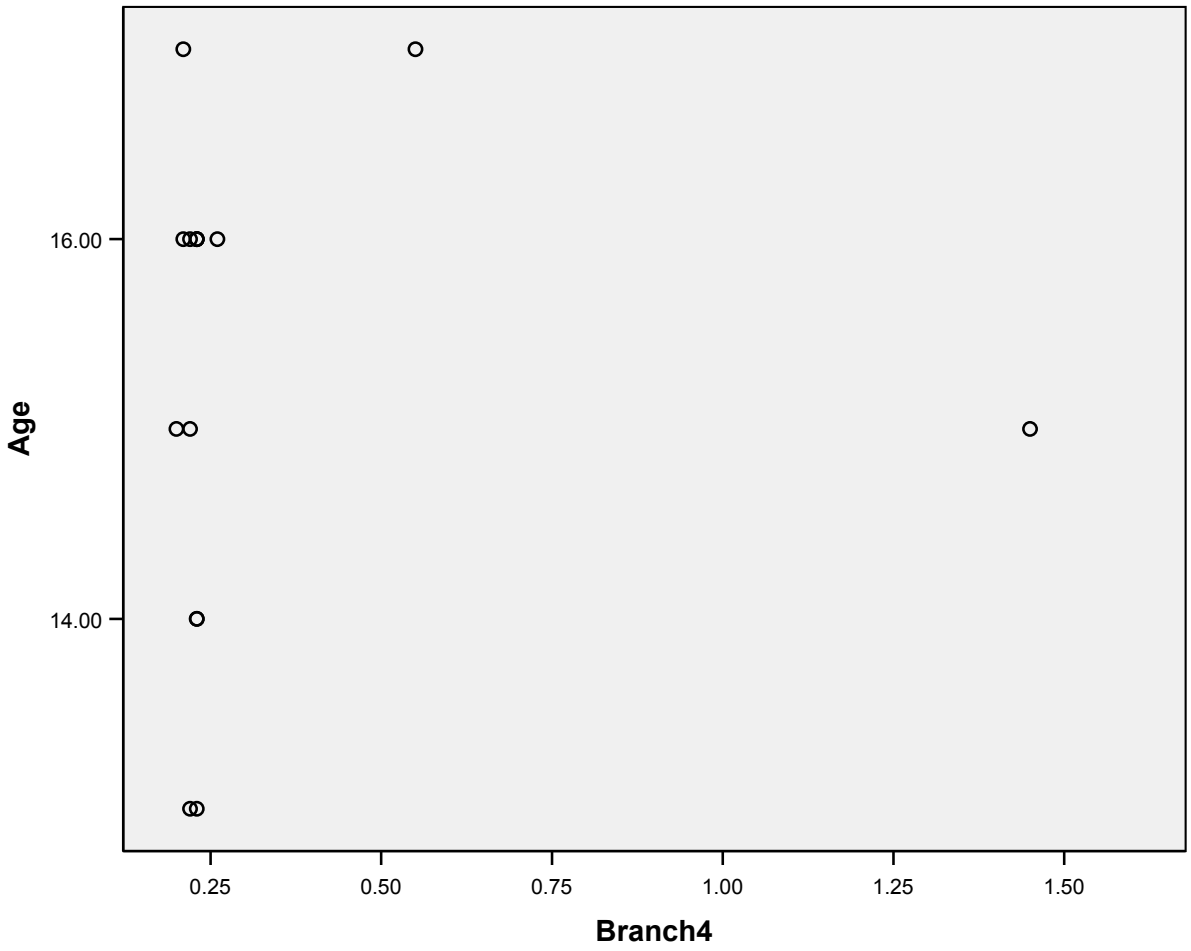

Figure U4. Scatterplot of age and achieved *z*-scores on Branch 4 (Managing Emotions) of the AMEIS.

Appendix U

Scatterplots of Age and AMEIS Scores

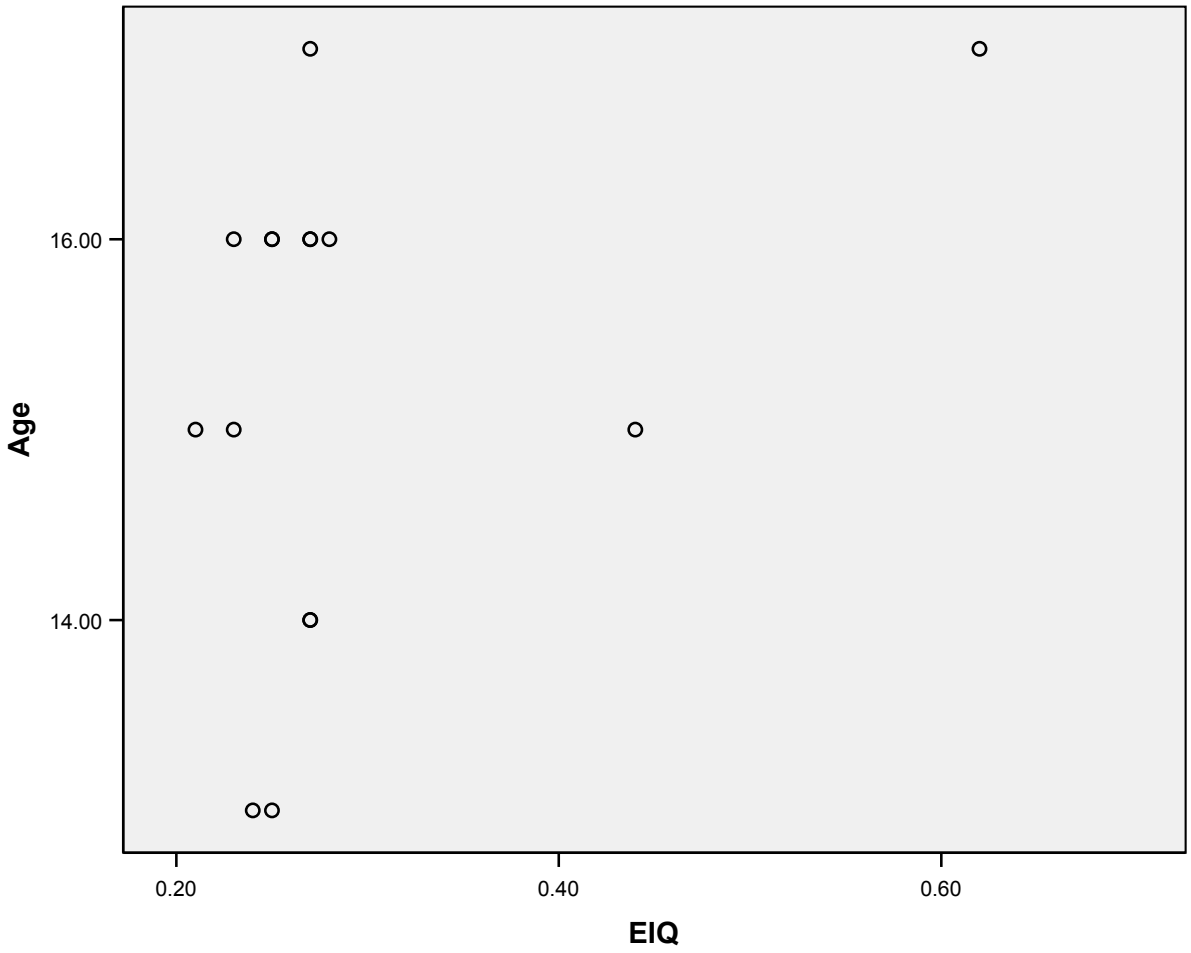

Figure U5. Scatterplot of age and *z*-scores on The Total Emotional Intelligence Quotient for the AMEIS.

Appendix V

Scatterplots of Gender and AMEIS Scores

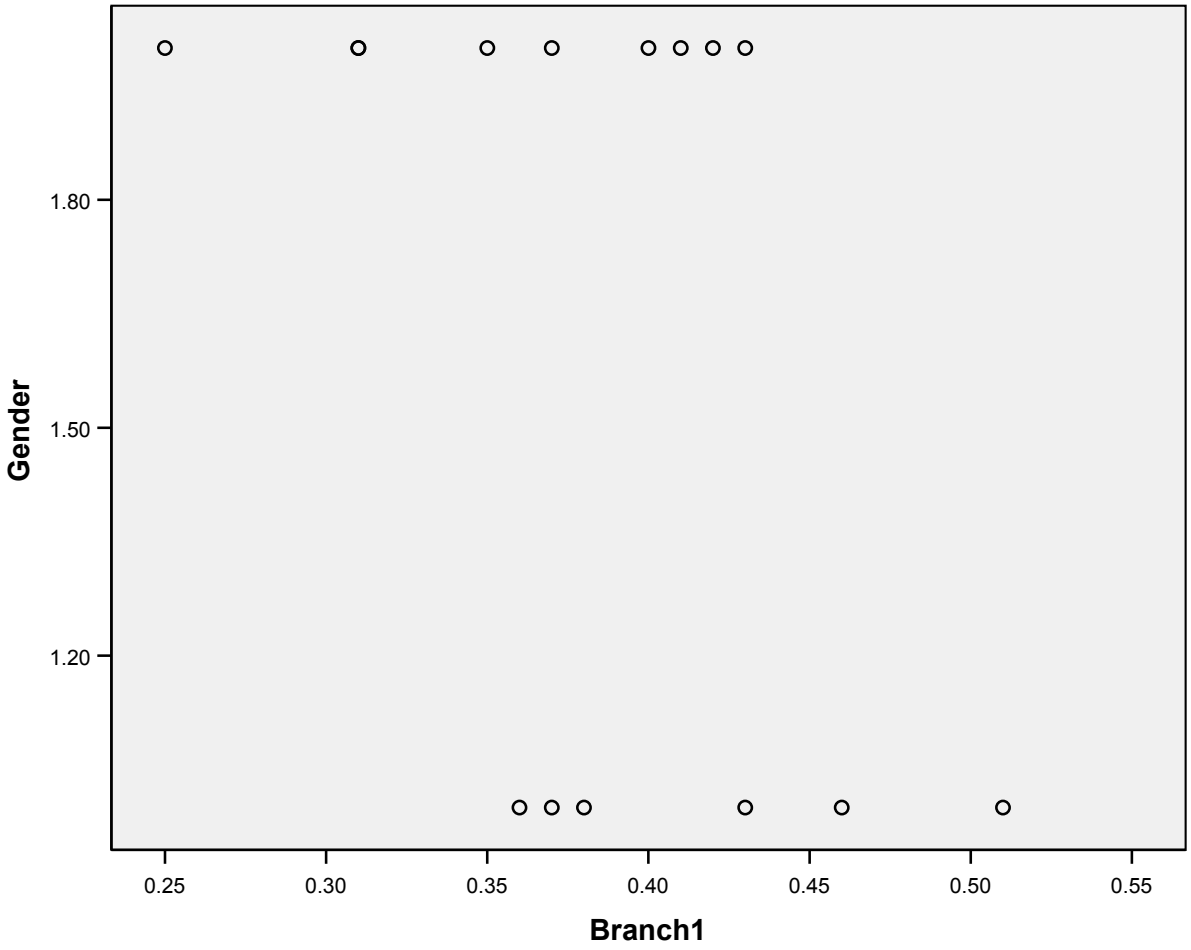

Figure V1. Scatterplot of gender ("1" = female, "2" = male) and achieved *z*-scores on Branch 1 (Identifying Emotions) of the AMEIS.

Appendix V

Scatterplots of Gender and AMEIS Scores

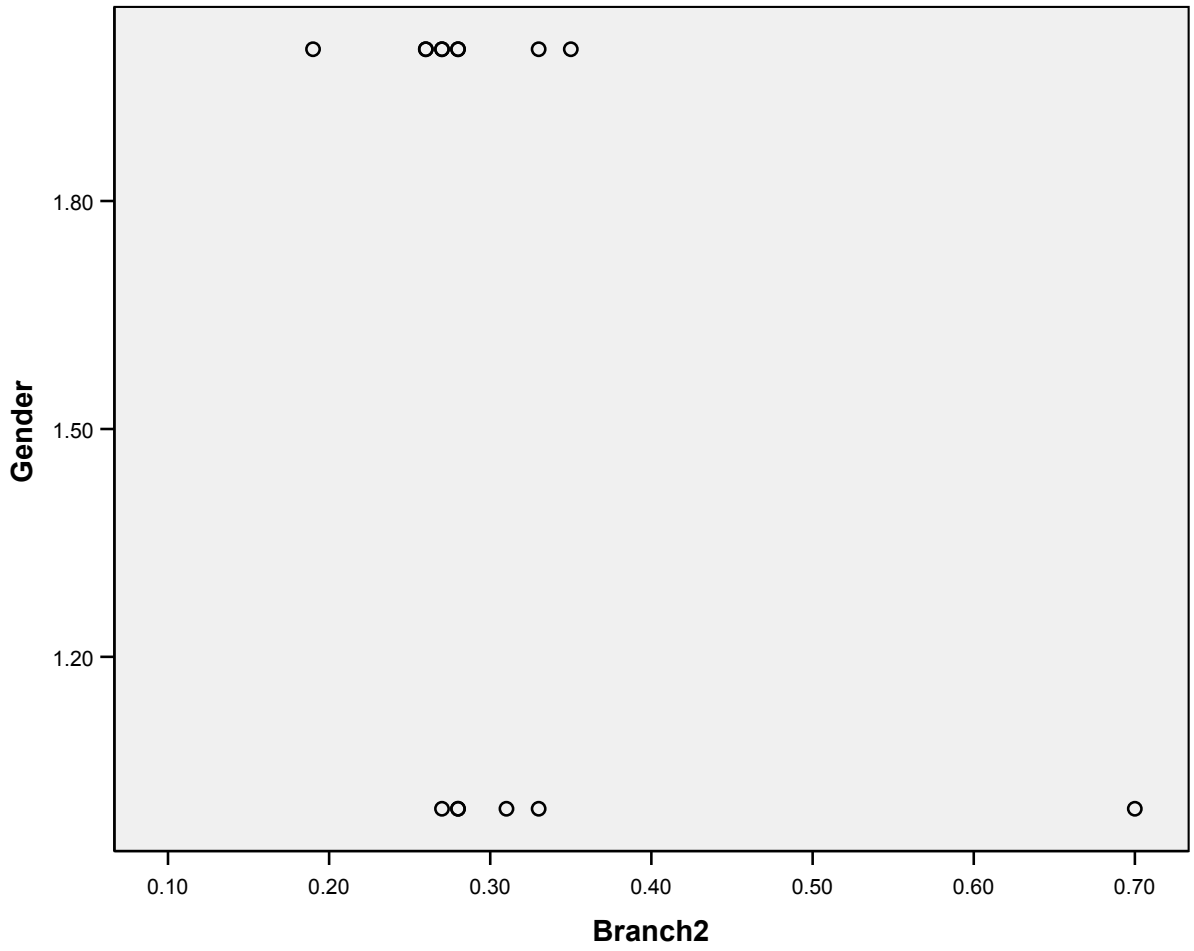

Figure V2. Scatterplot of gender ("1" = female, "2" = male) and achieved *z*-scores on Branch 2 (Using Emotions) of the AMEIS.

Appendix V

Scatterplots of Gender and AMEIS Scores

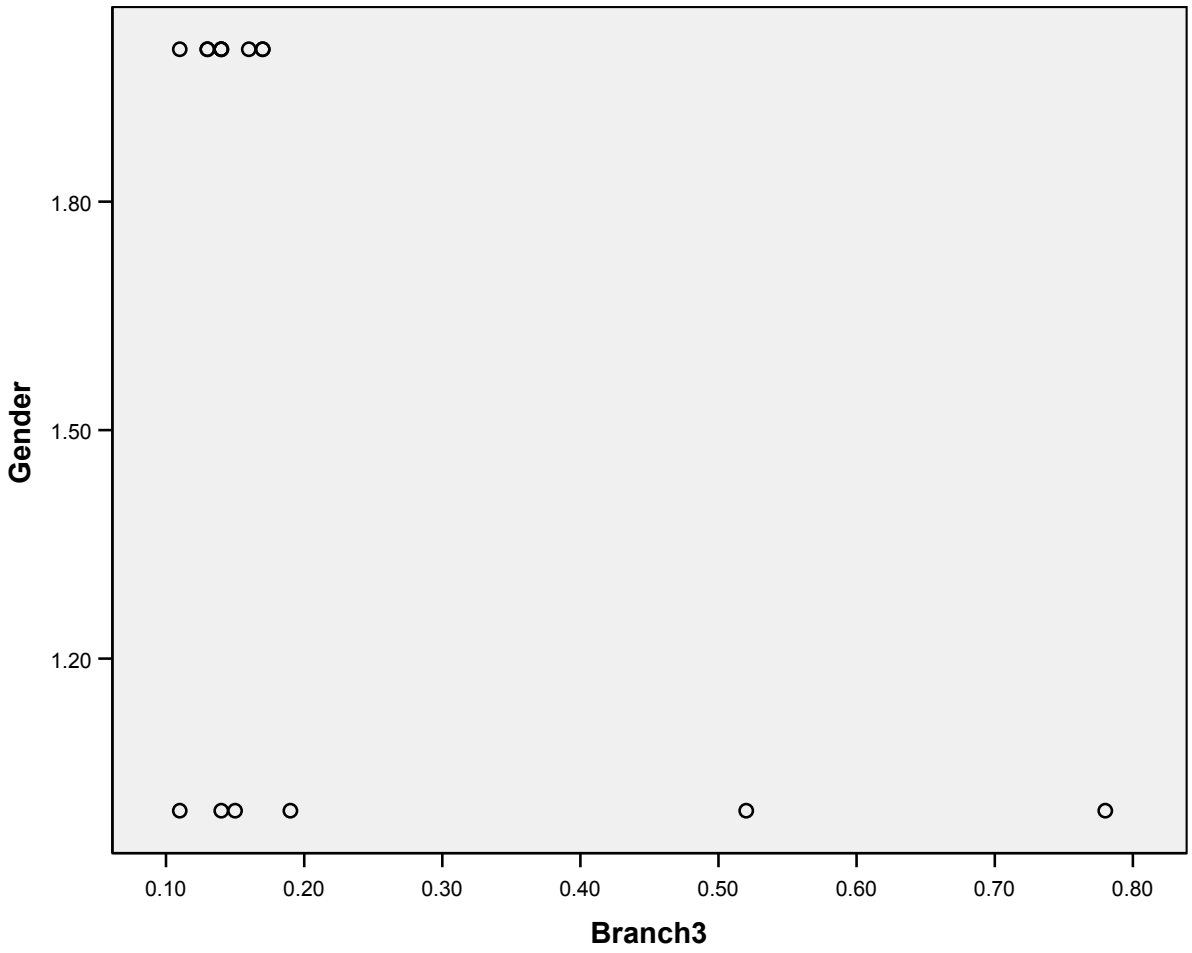

Figure V3. Scatterplot of gender ("1" = female, "2" = male) and achieved *z*-scores on Branch 3 (Understanding Emotions) of the AMEIS.

Appendix V

Scatterplots of Gender and AMEIS Scores

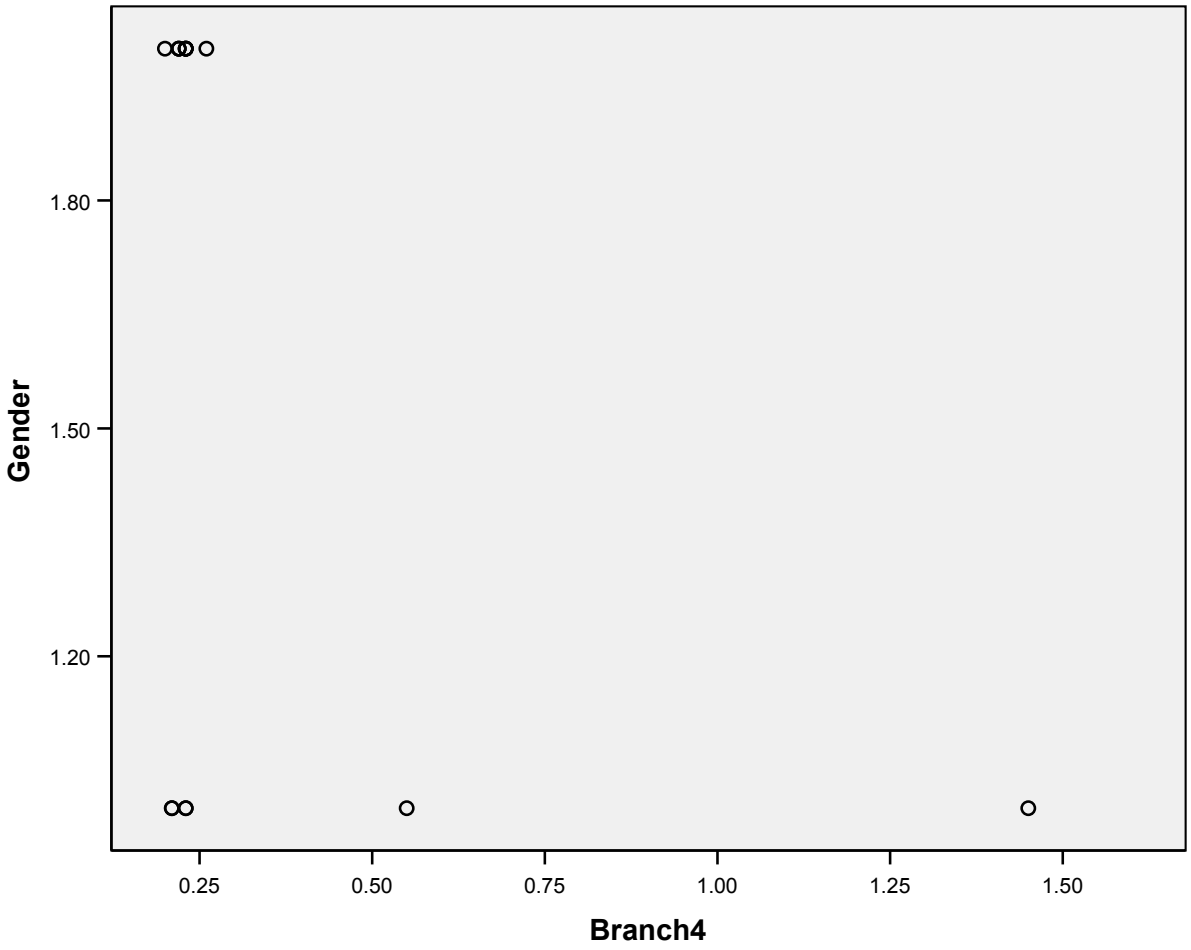

Figure V4. Scatterplot of gender ("1" = female, "2" = male) and achieved *z*-scores on Branch 4 (Managing Emotions) of the AMEIS.

Appendix V

Scatterplots of Gender and AMEIS Scores

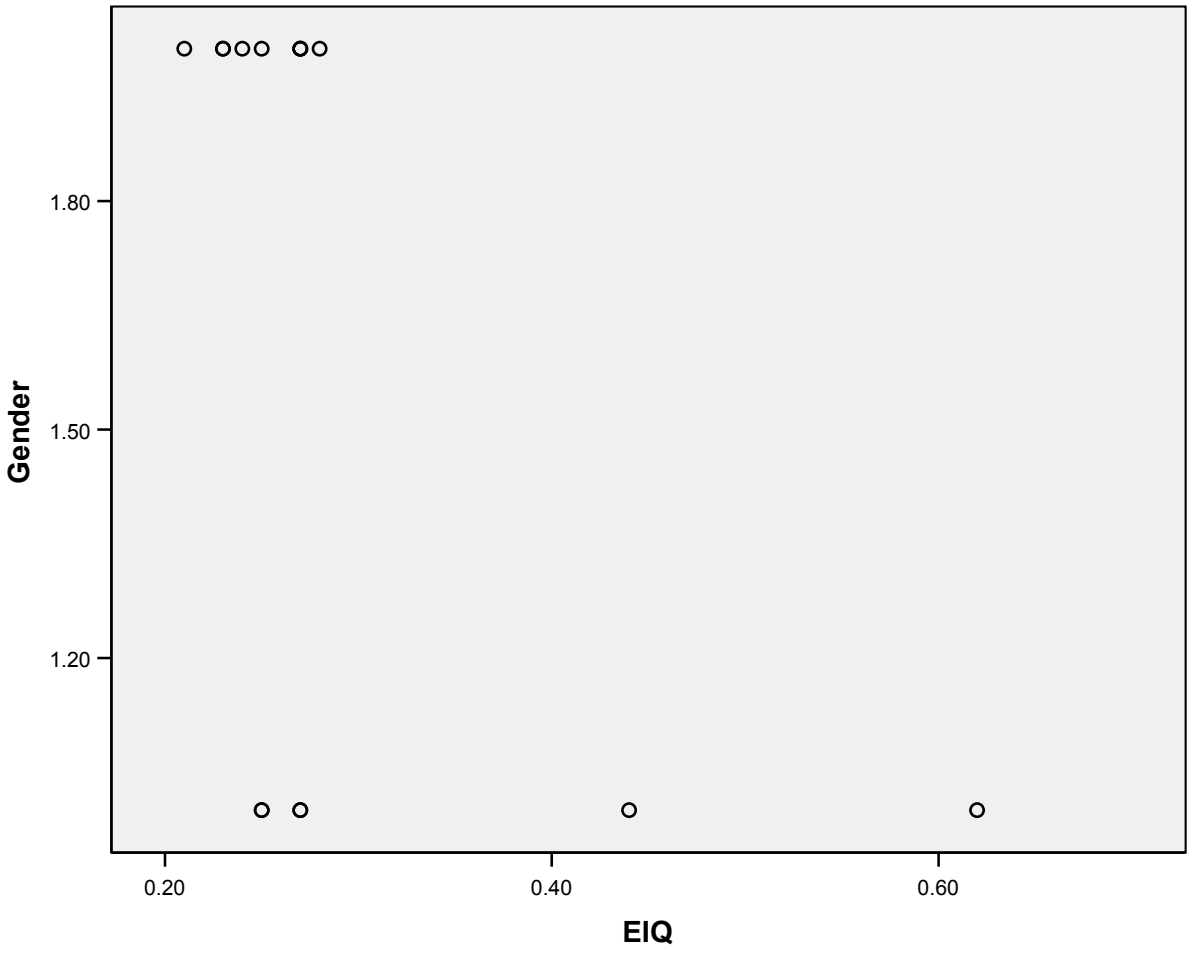

Figure V5. Scatterplot of gender ("1" = female, "2" = male) and *z*-scores on The Total Emotional Intelligence Quotient for the AMEIS.

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