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Investigating the emotional intelligence of adolescents with and without disabilities

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INVESTIGATING THE EMOTIONAL INTELLIGENCE OF ADOLESCENTS
WITH AND WITHOUT DISABILITIES

by

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A dissertation submitted in partial
fulfillment of the requirements for the

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ABSTRACT

Investigating the Emotional Intelligence of Adolescents With and Without Disabilities

by

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This study involved an investigation of the emotional intelligence profiles of three groups of adolescents: those with learning disabilities, those with an emotional disturbances, and adolescents without disabilities. A 2 (gender) X 3 (group) X 4 (subscale) mixed design with repeated measures on subscale was used to determine whether differences in emotional intelligence, as measured by the *BarOn EQi:YV*, existed among these three groups of adolescents. Specifically, performance within the four subscales of intrapersonal, interpersonal, stress management and adaptability as well as in the overall composite scores were compared to detect differences between gender, and disability groups.

A total of 66 middle and high school students (38 males and 28 females) participated in this study, of these 66 participants, 33 had learning disabilities, 14 had emotional disturbances, and 19 had no disability. The participants ranged in age from 13.0 years old to 18.7 years old.

A licensed school psychologist individually administered the *BarOn EQi: YV* (2000) to the participants within their school environments over a period of six weeks. Questions were read aloud to the participants and responses were recorded on the assessment protocol. The school psychologist scored each assessment. To establish interscorer reliability, a second licensed school psychologist randomly selected and scored 25% of the total assessments. Interscorer reliability was determined to be 97.5%.

The factorial ANOVA revealed a significant main effect for Subscale at the .05 significance level. There were no significant interaction effects among the within and between-subjects variables. Pairwise comparisons revealed a significantly higher mean score for the adaptability subscale than the mean score for the intrapersonal subscale. Results of the study also indicate that the composite scores of male students with emotional disturbances were the highest, and significantly higher than female students with emotional disturbances, and male students with learning disabilities. All groups of students' emotional intelligence composite scores were within the average range, with the exception of female students with emotional disturbances. Their mean standard score of 84 was within two standard deviations below the mean of 100.

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CHAPTER 1

INTRODUCTION

The ability to process and manage emotional information intelligently and reasonably is a skill necessary for successful navigation through life (Lopes et al., 2004). In fact, the appropriate use of emotional intelligence (EI) may predict up to 80% of life successes including the sense of life contentment (Goleman, 1995).

The construct of emotional intelligence has been identified as important in predicting academic success as well as the ability to read emotional reactions (Salovey & Sluyter, 1997; Doty, 2001). In short, research indicates that emotional intelligence and the interpretation of behaviors (e.g. social skills) are critical to academic and school success as well as overall adult competence (Cartledge, 2005; Salovey & Sluyter, 1997).

Emotional Intelligence Defined

The concept of Emotional Intelligence is relatively new (Bar-On & Parker, 2000; Bar-On, 2006). Definitions of emotional intelligence vary, including from 4 to 120 components to derive an emotional intelligence score, or rating (Bar-On & Parker, 2000; Goleman, 1995; Mayer, Salovey & Caruso, 2002; Romanelli, Cain, & Smith, 2006; Salovey & Mayer, 1990; Trinidad, Unger, Chou, & Johnson, 2005). One definition of emotional intelligence describes a set of skills used to understand, read, and react effectively to emotional signals sent by oneself and others. Skills related to emotional

intelligence that help understand signals include empathy, problem-solving, optimism, and self-awareness (Romanelli, Cain, & Smith, 2006). This intelligence should reflect performance rather than a preferred behavior, and should meet prescribed correlational criteria (Romanelli, Cain, & Smith, 2006).

Trinidad, Unger, Chou, and Johnson, (2005) define emotional intelligence as the ability to appraise, express, and perceive emotions accurately. They include the ability to access and generate feelings in their conceptualization of emotional intelligence, as well as understanding emotional knowledge, and regulating emotions. They also note that emotional intelligence is based on the belief that certain emotional conflicts (e.g., manifested in behaviors) can be judged to be appropriate or inappropriate (Trinidad et al., 2005).

Salovey and Mayer (1990) include five domains in their early definition of emotional intelligence: (a) self awareness, (b) managing emotions, (c) motivating oneself, (d) empathy, and (e) handling relationships. These five domains combine to formulate a type of intelligence that includes the ability to monitor emotions. This includes the ability to discriminate among one's own emotions, understand the emotions of others, and use emotional information to guide individual thinking and action. Mayer and Salovey (1997) augmented their earlier definition of emotional intelligence to include the ability to perceive emotions, access and generate emotions, understand emotions and emotional knowledge, and regulate emotions to promote emotional and intellectual growth through reflection. In 2002, Mayer, Salovey, and Caruso articulated five competencies of emotional intelligence: (a) accurate perception of emotions, (b) use of emotions to

facilitate thinking, (c) problem solving and creativity, (d) understanding emotions, and (e) managing emotions for personal growth.

Goleman (1995) offered another definition of emotional intelligence. He indicated that in men, the characteristics of social poise, cheerfulness, responsibility, and commitment were identified as indicators of emotional intelligence. In women, assertiveness, directness, and adaptability to stress were identified as components of emotional intelligence. Goleman also noted five sub-domains of emotional intelligence based on the prior research of Salovey and Mayer (1990). These sub-domains were self-awareness of one's emotions, management of moods/emotions, self-motivation, empathy or recognizing emotions in others, and managing/handling of relationships (Goleman, 1995).

Boyatzis, Goleman, and Rhee (2000) identified 25 competencies of emotional intelligence and organized them into the five clusters of (a) self-awareness, (b) regulation, (c) motivation, (d) empathy, and (e) social skills. Their model describes emotional intelligence as competencies that enable a person to exhibit intelligent use of their emotions and self management while working effectively with others.

Emotional intelligence also has been defined as a range of emotional, personal, and interpersonal skills that affect one's ability to cope (Bar-On & Parker, 2000). According to Bar-On and Parker (2000), emotional intelligence includes the emotional, social, and personal dimensions of intelligence. This model of emotional intelligence includes four specific components: intrapersonal, interpersonal, adaptability, and stress management. These components are combined to determine an individual's emotional quotient.

Components of Emotional Intelligence

Researchers agree that there are several components of emotional intelligence (Bar-On & Parker, 2000; Goleman, 1995; Mayer & Salovey, 1997; Romanelli, Cain & Smith, 2006; Salovey & Mayer, 1990). Bar-On & Parker (2000) specifically identify the components of emotional intelligence as interpersonal skills, intrapersonal skills, stress management, and adaptability.

Interpersonal Skills

Interpersonal skills consist of four abilities: (a) empathy, (b) awareness and understanding of feelings, (c) ability to create and sustain fulfilling relationships, and (d) social responsibility (Bar-On & Parker, 2000). Mayer and Salovey (1993) also discuss the ability to monitor the emotions of others while Goleman (1995) included the ability to recognize, handle and manage emotions in relationships as an interpersonal skill of emotional intelligence.

Research with both adults and school-aged children has supported the importance of interpersonal skills for positive outcomes and life success. Those who are good listeners, are understanding, and appreciate the feelings of others are considered to have good interpersonal skills (Bar-On & Parker, 2000). Maneuvering through social situations involves a range of skills that enhance the quality of interpersonal relationships (Spence, 2003). These interpersonal skills include verbal and non-verbal behaviors that may influence the perceptions of others during social exchange. Behaviors related to interpersonal skills include initiating and maintaining conversations, posture, facial expressions, eye contact, adjusting tone and volume of voice, and responding to physical social cues (e.g. eye contact and physical proximity) (Fisher, Masia-Warner, &, Klein,

2004). These skills may lead to more refined and successful interpersonal interactions (e.g. carrying on a conversation, offering help to others, and giving compliments) that produce desired social outcomes (Spence, 2003; Spence, Donovan, & Brechman-Toussaint, 2000).

Intrapersonal Skills

Bar-On and Parker (2000) maintain that the intrapersonal skills of emotional intelligence are the ability to understand and identify feelings. Salovey and Mayer (1990) and Boyatzis, Goleman, and Rhee (2000) call this self-awareness. Other intrapersonal emotional intelligence abilities include assertiveness, (Goleman, 1995; Trinidad et al., 2005), self regard (Bar-On & Parker, 2000), and reflection, (Mayer & Salovey, 1997). It appears that the intrapersonal skills of emotional intelligence involve the realization of personal potential in terms of self-directedness and self-controlled thinking (Goleman, 1995; Romanelli et al., 2006).

Bar-On and Parker (2000) maintain that the intrapersonal skills of emotional intelligence are the ability to understand and identify feelings. Taylor and Bagby (2000) define intrapersonal intelligence as the knowledge and examination of one's own feelings. These skills include self-awareness, assertiveness, cognitive restructuring (e.g. identifying and stopping maladaptive thinking), accurate processing of social information, and perspective taking (Bar-On & Parker, 2000; Spence, 2003; Spence, Donovan, & Brechman-Toussaint, 2000; Fisher, Masia-Warner, &, Klein, 2004). At its most simple level, intrapersonal skills are the capacity to distinguish positive and negative feelings in oneself and to react based on the discrimination of these feelings. At its most complex level, intrapersonal skills are the ability to detect and symbolize

complex feelings (Gardner, 1983). Evidence of strong intrapersonal intelligence is demonstrated in assertiveness, positive self-regard, and independence (Mayer, Salovey & Caruso, 2000). These skills are used to tolerate daily stress, which in turn fosters the ability to solve problems, maintain high self-regard, and avoid anxiety that may cause disruption in a person's daily functioning (Bar-On, 2000).

Adaptability

In 2000, Bar-On and Parker identified abilities consistent with the adaptability of emotional intelligence (Bar-On & Parker, 2000). These include validation of one's emotions, flexibility to changing situations, and the ability to identify and solve problems effectively. Both Goleman (1995) and Romanelli et al. (2006) indicate that characteristics of adaptability such as managing relationships and problem solving are key for the emotionally intelligent individual. Mayer and Salovey (1993) also acknowledge the importance of adaptability in using emotional information that guides individual actions and leads to positive social interactions.

Adaptability consists of the abilities to be realistic, flexible, and find positive and effective ways to manage social change (Bar-On & Parker, 2000). There is a distinction between the acquisition of and performance of social skills (Spence, 2003). Both interpersonal and intrapersonal skills may be acquired by a person, but not demonstrated when necessary. This results in an inability to use the skills to adapt to different social environments or situations. Often impulsiveness and distractibility prevents students with poor social skills from successfully engaging in adaptive or problem-solving behaviors (Spence, 2003). Additionally, many students who practice avoidance behaviors, because of their discomfort in specific environments, also display a social skill

deficit in adaptability (Fisher, Masia-Warner, & Klein, 2004). Adaptability is essentially emotional intelligence in action and these actions, while not based solely on cognitive ability, are essential for positive outcomes in coping with life stressors (Matthews & Zeidner, 2000).

Stress Management

Stress management involves the ability to deal with stressful situations in ways that result in positive outcomes (Bar-On & Parker, 2000). Boyatzis et al. (2000) and Mayer and Salovey (1997) include the concept of emotional self regulation in the definition of emotional intelligence. The management of personal stress influences the academic performance of students. Students who are more capable of coping with the pressure associated with challenging academic material perform better than those who lack the ability to manage their stress. This phenomenon is evident even when cognitive abilities of those who cope well and those who do not cope well are similar (Bradberry & Greaves, 2005).

Stress management involves the ability to tolerate stress, deal with stress in a positive manner, resist or delay impulsive reactions to a stressful situation, and create positive outcomes in stressful situations. Moreover, adjusting to difficult social situations requires management of stress, without emotional disruptions (Bar-On & Parker, 2000). Brackett and Geher (2006) also note the importance of stress tolerance and impulse control in the management of stress. The recognition of discomfort and the ability to keep from becoming engrossed by the feeling, or flooded by the emotion, is another critical variable related to stress management (Goleman, 1995). Strong emotional intelligence assists in reducing stress (Bradberry & Graves, 2005). Additionally, researchers note that strong

emotional intelligence strengthens the brain's ability to cope with stress as evidenced through physical differences found in brain activity when individuals are exposed to distressing situations (van der Kolk, 1994).

For the purposes of this study, the Bar-On model of emotional intelligence will be applied. This model includes the components of interpersonal skills, intrapersonal skills, stress management, and adaptability to determine emotional intelligence (Bar-On & Parker, 2000). Thus, the model is comprehensive and includes the primary components identified in the various definitions of emotional intelligence. Additionally, an assessment instrument (i.e., *BarOn EQi:YV*) has been developed that aligns with this particular emotional intelligence model.

Emotional Intelligence as a Construct of Social Skills

Algozzine, Serna & Patton (2001) maintain that social skills are a set of behaviors (e.g., nonverbal, verbal, and paraverbal behaviors) that typically result in satisfying interactions between people. When personal interactions are positive, it appears that emotional intelligence may be considered a construct of social skills. This is supported by the research of Lopes, et al. (2004) who found that emotional intelligence is important for social interactions because it serves in a communicative capacity to convey thoughts and intentions. Mayer and Salovey (1993) maintain that emotional intelligence involves social intelligence that includes the ability to use emotions to guide actions and to monitor the emotions of other people.

Research indicates that emotional skills are related to the ability to be successful in situations that involve interaction among people in both social and academic

environments (Salovey & Sluyter, 1997). It appears that there are links between a child's emotional competence and his or her social functioning (Colwell & Hart, 2006). This is supported by the research of Mueller and Brenner (1977) who found that a significant source of social skill development among children is social interaction with others.

These social interactions include socially directed behaviors, such as one child looking at another and directing an action, or parallel play in which children are playing within a close physical proximity to each other but not interacting with each other (Mueller & Brenner, 1977). Mayer, Salovey and Caruso (2002) indicate that emotional intelligence includes the concepts of understanding emotions in oneself and others, as well as problem solving. Thus, connections between emotional intelligence, social interaction, and social skills are evident.

Historical Perspectives on Emotional Intelligence

Until the early part of the 20th century, research and expert opinion was scarce on the connection between emotion and thinking (Mayer, et al., 2000). Professionals in the fields of psychology, sociology, and cognition believed that emotion and cognition were separate fields and had no correlation with each other. Beginning in the early 20th century, social intelligence was the term used to describe much of what is now called emotional intelligence (Landy, 2006). In the second half of the 20th century, however, researchers began to note correlations between emotion and cognition (Mayer, et al., 2000).

1900 to 1940

John Dewey first used the term social intelligence in 1909 in an article titled *Moral Principles in Education* (Dewey, 1909). Dewey stated that moral motives and forces contributed to the development of social intelligence, and that such development is needed to serve social interests (Dewey, 1909). Later, in 1911, Herbert Lull wrote an article titled *Moral Instruction through Social Intelligence*. Lull advocated that school curriculum should be more socially relevant and engaging for students (Lull, 1911). In 1920, Thorndike articulated the need for assessment procedures to measure the depth and complexity of human behavior. Research at this time indicated that various intelligences were separated into three categories: (a) mechanical intelligence, (b) social intelligence, and (c) abstract intelligence. Social intelligence was defined as the ability to understand and relate to people. Thorndike, in *Harper's Magazine* (1920), defined social intelligence as “the ability to understand and manage men, women, boys, and girls to act wisely in human relations” (p. 228). Thorndike maintained that abilities and tasks that are treated as intellectual are really a matter of assumption and choice. He suggested that it was not possible to measure intelligence independent of cultural context. He believed the same was true related to emotional assessment (Thorndike, 1920).

Max Freyd conducted the first preliminary research related to social interest and intelligence (Freyd, 1923). Freyd assessed 60 male participants half enrolled in a sales course and the other half enrolled in a technical course. The interests expressed by the two groups differed. The men enrolled in the sales course expressed high interest in social activities, while those enrolled in the technical course were more interested in mechanical environments (Freyd, 1923). A few years later (i.e., 1927) Spearman

acknowledged the concept of social intelligence in his book *The Abilities of Man*, but believed that the concept of overall general intelligence was more important (Spearman, 1927).

The first known assessment of social intelligence was introduced in 1928 and was titled *The George Washington Test of Social Intelligence* (Hunt, 1928). This assessment was the first of its kind to specifically measure social intelligence through six different areas: (a) judgment in social situations, (b) memory for names and faces, (c) recognition of mental states from facial expressions, (d) observation of human behavior, (e) social information, and (f) recognition of mental states behind words (Hunt, 1928). This was an important development in the history of social intelligence because it was determined that the construct of social intelligence could be evaluated and distinguished from general intelligence.

1940 through 1980

After 1940, the use of *The George Washington Test of Social Intelligence* decreased substantially (Landy, 2006). Beginning in the 1950's, the term emotional intelligence was being used occasionally, with no concrete definition applied to the concept. Van Ghent (1953) used the term in his writing and later, Maslow (1962) wrote about individuals increasing their emotional strengths to improve their abilities to positively connect socially and emotionally with others and themselves.

During the 1950's and 1960's, Guilford, a researcher in the area of social intelligence, developed a model of ability that included the role of emotions in behavior (Guilford, 1956). He created a model of mental ability that included 120 components, one of which

was behavioral intelligence, dealing with information characterized as feelings, thoughts, attitudes, and psychological dispositions that impacted behavior (Guilford, 1967).

Ekman (1973), a researcher in the area of emotion and facial expressions, began to focus on the connection between emotion and cognition. During this time, cognition and affect were viewed as the precursors to emotional intelligence. Intelligent behavior, and observable display of emotional intelligence, often went unnoticed by observers, thereby missing the concept of emotional intelligence (Wiggins, Hoffman & Taber, 1977). Child development literature indicated that the concept of emotional giftedness, or emotion over excitability, was a precursor to emotional intelligence (Dabrowski & Piechowski, 1977).

1980 to Present

In 1985, Dr. Bar-On coined the specific term emotional intelligence. This term was used to focus on the emotional, social and personal aspects of intelligence. Dr. Bar-On also published the first test of emotional intelligence, the *Emotional Quotient Inventory (EQ-i)* (Bar-On & Parker, 2000). In 1990, Salovey and Mayer presented the first formal definition of emotional intelligence. They maintained that it was composed of a set of skills that contributed to accurate emotional expression; appraisal of self and others; regulation of emotion; and the use of feelings to plan, achieve, and motivate oneself. In Gardner's (1983) theory of multiple intelligences, interpersonal and intrapersonal intelligence were presented. He defined interpersonal intelligence as the ability to understand others and intrapersonal as the ability to understand oneself.

In 1996, Schilling, Johnson & Wentz introduced the idea that an individual's emotions can organize their response to their biological system and place the individual in a good

position to respond appropriately to others. This suggests that intrapersonal skills are important to daily functioning (Shilling et al., 1996). In 1997, the *BarOn EQi* was published (Bar-On, 1997). This was the first instrument designed to measure emotional intelligence in adults. Another instrument, the *Multifactor Emotional Intelligence Scale (MEIS)*, was published in 1999 (Bar-On & Parker, 2000; Mayer, Salovey & Caruso, 2002). This test was also designed to specifically measure emotional intelligence in adults (Bar-On, 1997; Mayer, Salovey, & Caruso, 2002). The original *BarOn EQi* had a total of 133 test items, with five components, with results reported in 15 subscales, and an emotional intelligence composite score (Bar-On, 1997). The *Multifactor Emotional Intelligence Scale (MEIS)* had a total of 402 items, although all items were not administered to every adult, with four components, and a total emotional intelligence composite score. In 2000, Bar-On published the youth version of the *BarOn EQi*, the *BarOn EQi: YV*, that was designed specifically to obtain an emotional quotient score for children ages seven to eighteen years old (Bar-On, 2000). Two versions of this assessment were published: a standard assessment, and a short form, with half the number of questions (Mayer, Salovey & Caruso, 2002).

Thus, the concept of emotional intelligence evolved from the earlier construct of social intelligence over the past three decades. This evolution has resulted in clarified definitions related to emotional intelligence as well as specified components considered important to emotional intelligence (e.g., intrapersonal skills, adaptability, and interpersonal skills). Researchers have also come to recognize that with age, emotional intelligence may vary, and therefore assessments are now created to identify specific age groups when assessing emotional intelligence.

The Measurement of Emotional Intelligence

Social and emotional intelligence emerged from the field of psychology over the past 100 years and has recently been associated with traditional theories of intelligence (Dewey, 1909; Lull, 1911; Maslow, 1962). Several researchers, including those who have created assessments in both cognitive intelligence and emotional intelligence, have indicated a connection between intelligence and adaptation (Bar-On & Parker, 2000; Mayer & Salovey, 1995; Wechsler, 1958).

BarOn EQi

In 1997, the *BarOn EQi* was published. This was the first assessment developed to measure emotional intelligence, and to derive an emotional quotient score (Bar-On & Parker, 1997). This assessment includes self report questions rated on a Likert scale from 1-4. This scale is used to measure emotional intelligence in the areas of intrapersonal skills, interpersonal skills, stress management, adaptability and general mood. Raw scores are converted to standard scores based on a population normed by age, and gender (Bar-On & Parker, 1997).

Multifactor Emotional Intelligence Scale

The *Multifactor Emotional Intelligence Scale (MEIS)* was developed as an ability-based scale to assess emotional intelligence in adults (Mayer, Caruso, & Salovey, 2000). This scale has over 400 test items, with components of perception, assimilation, understanding and managing emotions. Test items involve the interpretation of presented graphics and colors (Mayer, Caruso, & Salovey, 2000).

Mayer, Salovey, Caruso, Emotional Intelligence Test (MSCEIT)

The *Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT)* was another instrument developed to assess emotional intelligence (Mayer, Salovey, & Caruso, 2002). Updated from the *MEIS*, this test is used to compare responses from individuals to those of a group. Specifically, an individual's response is rated based on the frequency of the same response found in the norm group (Mayer, Salovey, & Caruso, 2002). The *MSCEIT* incorporates hands-on problem sets. These problem sets include pictures and several statements that the respondent is expected to associate with the picture. Responses are presented on a Likert type scale (Mayer, Salovey, & Caruso, 2002).

BarOn EQi:YV

Self-report assessments such as the *BarOn EQi:YV*, published in 2000, require the student to respond to statements about themselves. The *BarOn EQi:YV* is an assessment directed at youth ages seven to eighteen years old. The full assessment protocol is conducted through self report and students are expected to answer 60 statements related to different aspects of their emotions. A short form is also available with 30 questions (Bar-On & Parker, 2000). Response choices include a Likert scale of *very seldom true of me to very often true of me*. Along with the four subscales of intrapersonal, interpersonal, stress management and adaptability, there is a general mood scale, a total EQ scale and a positive impression scale (Bar-On & Parker, 2000). The *BarOn EQi: YV* is the assessment used for this research project.

Emotional Intelligence and Adolescents

Research in emotional intelligence remains limited, although positive correlations have been made between assessed emotional intelligence scores and one's positive perceptions, social interactions, and the ability to cope in stressful situations (Bar-On, 2006; Mayer & Salovey, 1997). Students who are described as emotionally literate are able to master emotional abilities and to control themselves when faced with pressure during life transitions (Finn, 1993; Goleman, 1995; Sinclair, Christenson, Evelo, & Hurley, 1998). These transitions include moving from grade to grade and from middle school to high school; transitions that may be difficult for students with disabilities (Richardson, 2002). Much has been written about the adjustment difficulties and potential alienation that many adolescents face (Sinclair, Christenson, Evelo, & Hurley, 1998).

Research indicates that most students drop out of school because they feel an extreme sense of alienation or disengagement (National High School Center, 2007). Typically, students express this alienation through absenteeism, behavior problems, and failing grades (Sinclair, et al., 1998). Students who have difficulty interpreting the expectations of others, and who have difficulty with interpersonal skills, often leave high school without graduating (Sinclair, et al., 1998). Wagner et al. (1991) found that nearly one third of students with learning disabilities and approximately half of students with an emotional disturbances drop out of high school.

Emotional intelligence is important in predicting academic success (Lam & Kirby, 2002). It appears that some dimensions of emotional intelligence (intrapersonal abilities, adaptability, and stress management) predict academic success among university students

(Lam & Kirby, 2002). Researchers also note that students with learning disabilities or emotional disturbances face greater academic challenges than typical students, leading to obstacles in academic success (Wagner & Cameto, 2004).

Research indicates that as emotional intelligence increases, student concern decreases. Increased student concern correlates with low emotional intelligence scores, and high emotional intelligence scores contribute to easing transition trauma for females and males. Moreover, females display higher levels of emotional intelligence and are better ability to adapt to academic changes in middle school than males (Richardson, 2002). Similar research conducted with middle school males correlated high student emotional intelligence scores, as rated from teachers and counselors, with high self report emotional intelligence scores using the *Juvenile Emotional Management Scale (JEMS)* (McLin, 2003). In this research there was a significant difference between students who were rated low by themselves, a teacher or counselor and those rated as high, with a positive correlation between self reported and teacher reported emotional intelligence scores (McLin, 2003).

Typical Adolescents

Research conducted in a public high school examining the relationship between emotional intelligence and academic achievement among typical adolescents revealed a positive correlation between high emotional intelligence scores and academic achievement (Parker et al., n.d.). It appears that strong emotional intelligence is a significant predictor of academic success, as well as interpersonal skills, adaptability, and stress management (Parker et al., n.d.).

Academic Consequences. Academic consequences related to emotional intelligence include grades, dropout rates, and absenteeism. Parker et al. (n.d) found that when organized by grade, and by type of emotional competency, gender was not a significant factor in the relationship between emotional intelligence and academic performance for students. When the relationship between academic success and emotional intelligence was examined, emotional intelligence was found to be a significant predictor of academic success (Parker et al., n.d.). Academic success was highly correlated with emotional intelligence overall, as well as with interpersonal, adaptability and stress management (Parker, et al., n.d.). Similarly, Izard et al. (2001) found that deficits in a child's ability to detect and identify emotional cues are a contributor to learning problems and behavioral problems.

Social Consequences. Social consequences for students with low emotional intelligence include peer rejection, and ineffective communication between peers and teachers. Adolescent students who rate high on emotional intelligence scales are happier than those with low emotional intelligence scores, cope better with transition to high school, and are less likely to be truant. Based on peer ratings, students who rate high on emotional intelligence are less aggressive, more pro-social, and less likely to engage in tobacco consumption or alcohol consumption than students with low emotional intelligence ratings (Trinidad, Unger, Chou & Anderson Johnson, 2005).

Lower emotional intelligence scores have been correlated with high depression and loneliness scores (Trinidad, Unger, Chou & Anderson Johnson, 2005). High emotional intelligence scores in older adolescents and adults are positively correlated with actual (observed) and perceived friendship quality (Trinidad, Unger, Chou & Anderson

Johnson, 2005). The ability to recognize and label one's own emotions, (i.e., emotional knowledge), is positively correlated with social behavior and social interactions in adults (Izard et al., 2001).

Students with Emotional Disabilities

Students with emotional/behavioral disorders (EBD) typically are considered to have chronic cognitive difficulties in processing social information and effectively solving social problems, resulting in failure to get along with peers and adults (Margalit, 1995). They also display an inability to empathize, discriminate social cues, use appropriate communication of messages, and display balanced perspective taking (Schumaker & Hazel, 1984). Because of these inter-personal and intra-personal problems, students with emotional disturbances are at a greater risk for social isolation and or rejection (Webber & Plotts, 2008).

Academic Consequences. Because students with EBD often have difficulty with processing social information, more than half (48%) are educated in restrictive settings such as self-contained classrooms (U.S. Department of Education, 2006). It has been reported that up to 17% of this population receives little or no academic instruction. Approximately 33% of these students participate in the general education curriculum with no modification, while 50% in general education settings receive some modifications (U.S. Department of Education, 2006). Little educational support and the experience of social rejection leads to the high dropout rate for students with EBD at 61%, compared to the national dropout rate of about 13% (U.S. Department of Education, 2006).

Social Consequences. Bar-On and Parker (2000) include intrapersonal skills and interpersonal skills as dimensions of their most recent emotional intelligence assessment for youth (*BarOn EQi:YV*). Students with EBD struggle with the ability to control their emotions and behavior, cooperate with others, be accepted, and make contributions to a group (Wagner & Cameto, 2004). These experiences may trigger a student with EBD to act aggressively toward peers and adults, withdraw, continue a cycle of maladaptive social behavior, or be depressed or anxious (Cullinan & Sabornie, 2004). This may lead to maladaptive behavior in school that translates to deviant behavior as an adult. Data indicate that students with EBD have an extremely high arrest rate (i.e., approximately 50%) within three to five years of leaving high school (U.S. Department of Education, 2006).

Students with Learning Disabilities

Nearly three million students in the United States are identified as students with learning disabilities. Of these students, it is estimated that between 38 and 75% have social problems (U.S. Department of Education, 2006). It appears that a large portion of students with learning disabilities experience difficulties with social relationships. Research involving students with learning disabilities indicates they experience higher anxiety and lower self-concept when compared to their peers without disabilities (Elias, 2004).

Academic Consequences. Students with learning disabilities experience academic difficulties not only directly due to their learning disability, but also related to their low affective abilities and emotional functioning (Wagner et al., 1991). Research indicates a relationship between students with learning disabilities and an increased risk of negative

emotions when compared to their peers without disabilities (Yasutake & Bryan, 1995). Students with LD also experience greater levels of test anxiety than their typical peers (Yasutake & Bryan, 1995). It appears that academic problems contribute to the dropout rate of students with learning disabilities. These students drop out at more than twice the rate of their typical peers (National Center on Secondary Education and Transition Statistics, 2002). If as Salovey and Mayer (1990) maintain that emotional intelligence involves managing moods, it can be deduced that students with learning disabilities are at a distinct disadvantage. This disadvantage is based on their increased exposure to negative affect through school failure and test anxiety (Yasutake & Bryan, 1995). Yasutake and Bryan's (1995) research also indicated a positive correlation between mood and academic performance in students with learning disabilities.

Social Consequences. A majority of students with learning disabilities have problems in their social relationships (Elias, 2004). Negative outcomes have been attributed to students with learning disabilities, including the inability to sustain social relationships (Bryan, Burstein, & Ergul, 2004). Teachers report that children and youth with learning disabilities are more disruptive, insensitive, engage in more attention seeking behaviors, and often indicate a preference toward more incompetent social solutions when compared to their average achieving peers (Bryan, Burstein, & Ergul, 2004). Research also indicates that students with learning disabilities, especially adolescents with learning disabilities, who have deficits in organization, reading, and language skills also have an increased amount of difficulty in understanding the social world, when compared to typical students (Elias, 2004).

The effects of characteristics related to low emotional intelligence among students with learning disabilities and emotional disturbances appear to be clear. These populations of students experience significantly higher dropout rates, poor social relationships, and overall lower academic success than adolescents without learning disabilities and emotional disturbances.

Statement of Problem

Based on statistics from the National High School Center (2007), the percentage of students who dropped out of high school in 2002 was approximately 14%. However, in 43% of students with disabilities dropped out of high school (National Center on Secondary Education and Transition Statistics, 2002). Specifically, more than half of the students with emotional and behavior disturbances and nearly one-third of students with learning disabilities dropped out of high school (National Center on Secondary Education and Transition statistics, 2002). The arrest rate for students with disabilities who drop out of school is three times higher than for students with disabilities who graduate. Students with disabilities obtain jobs and earn a minimum wage as much as 20% less often than their general education peers (Wagner & Cameto, 2004). It appears that the dropout rate results in a higher rate of unemployment and incarceration as adults (National Council on Disabilities, 2002).

The National Council on Disabilities (2002) reports that one million children each year come in contact with the juvenile justice system with 10% of these children placed in correctional facilities. Of these, over 33% have previously received special education services (National Council on Disabilities, 2002).

These statistics indicate significant challenges for students with learning disabilities and emotional disturbances both in school and upon leaving school. These challenges include their ability to stay in school, earn a high school diploma, and manage their lives in a productive and positive manner.

The purpose of this study was to investigate the emotional profiles of adolescent students (ages 13-18 years old) with learning disabilities and the emotional profiles of students with emotional disturbances. Specifically, profiles related to intrapersonal skills, interpersonal skills, adaptability, stress management, and composite EQ scores were explored and compared to the same profiles among students without disabilities, using the *BarOn EQi:YV* (2000). In addition to examining the subcomponents of emotional intelligence as separated on the *BarOn EQi:YV* (e.g. intrapersonal skills, interpersonal skills, adaptability, and stress management), comparisons were made between the two groups of students with disabilities, and a group of students without a disability.

Research Question

To address this purpose, the following research question was answered:

Is there a difference in emotional intelligence, as measured by the *BarOn EQi: YV* assessment, among adolescent students without an educational disability, adolescent students with emotional disturbances, and adolescent students with learning disabilities, within the four subscales of intrapersonal, interpersonal, stress management, adaptability, and the composite EQ scores?

Significance of Study

Children and youth who rate high on emotional intelligence (EI) scales are happier than those with low EI, and they cope better with transition to high school (Richardson, 2002). These children and youth are rated by their peers as less aggressive, more pro-social, and less likely to engage in consumption of both tobacco and alcohol (Trinidad, Unger, Chou & Anderson Johnson, 2005). Low EI scores have been correlated with higher depression and loneliness scores (Richardson, 2002). Adolescents and adults with higher EI scores are perceived as being good friends (McLin, 2003).

There is limited information concerning the emotional competence of adolescents with disabilities. Similarly, there is limited information related to whether emotional intelligence differs among students with and without disabilities. The results from this study will add new information to the literature related to the emotional intelligence among students with learning disabilities, students with emotional disturbances, and their peers without disabilities. This information can be used to support the development of appropriate behaviors, social functioning, and coping skills among adolescents. Improved social emotional support for students with learning disabilities and students with emotional disturbances has the potential to increase their graduation rates, lower arrest rates, and simultaneously improve employment outcomes. The results of this study will also help establish emotional intelligence baselines in terms of strengths and weaknesses in the areas of intrapersonal, interpersonal, stress management, adaptability, and composite EQ scores.

Definitions

Adaptability. Adaptability of emotional intelligence is defined as validation of one's emotions, flexibility to changing situations, and the ability to identify and solve problems effectively (Bar-On & Parker, 2000).

Consistency scale. A scale included in the *BarOn EQi: YV* designed to detect inconsistent responses (Bar-On & Parker, 2000).

Emotional intelligence. Emotional intelligence is an array of personal, interpersonal and emotional abilities that influence a person's overall ability to cope with environmental demands (Bar-On & Parker, 2000).

Interpersonal skills. These skills involve four abilities: (a) empathy, (b) awareness and understanding of feelings, (c) ability to create and sustain fulfilling relationships, and (d) social responsibility (Bar-On & Parker, 2000).

Intrapersonal Skills. These skills include the ability to understand and identify feelings in oneself (Bar-On & Parker, 2000).

Social skills. Social skills are defined as behavioral and cognitive skills that impact performance and are necessary to experience positive short-term and long-term social interactions (Spence, Donovan, & Brechman-Touissaint, 1999).

Stress Defined as a process involving people and environments, and immediate and long term effects, stress is a misalignment between demands of the environment, personal motivations, and abilities (Zeidner, Matthews & Roberts, 2006).

Stress management. The tolerance for stress so that it may be positively dealt with, as well as the ability to resist or delay an impulse in a stressful situation, and the creation of positive outcomes in stressful situations (Bar-On & Parker, 2000).

Students with disabilities. Adolescents with disabilities are students eligible to receive special education services under the provisions of the Nevada Administrative Code (2008).

Students without an educational disability. Adolescents between the ages of 13 and 18 who do not receive special education support within their respective school settings.

Students with emotional disturbances. Participants with emotional disturbances qualified for special education services based on the Nevada Administrative Code (NAC) definition as follows:

A pupil with a serious emotional disturbance is eligible for special services and programs of instruction if the eligibility team, comprised of the persons described in subsection 4, concludes that: (a) The pupil exhibits one or more of the characteristics described in subsection 2; (b) These characteristics have been evident for at least 3 months; (c) The characteristics adversely affect the ability of the pupil to perform developmental tasks appropriate to the pupil's age: (1) Within the educational environment, despite the provision of intervention strategies; or (2) In the case of a pupil under school age, in the home, child care or preschool setting; and (d) Special education support is required to alleviate these adverse effects. 2. The requirement of paragraph (a) of subsection 1 is satisfied by the consistent manifestation of any of the following characteristics: (a) An inability of the pupil to build or maintain satisfactory interpersonal relationships within the school environment, including: (1) Withdrawal and isolation of the pupil from others. (2) Efforts by the pupil to obtain negative attention from others through punishment, ostracism or excessive approval. (b) Inappropriate behavior or feelings under normal circumstances, including atypical

behavior such as outbursts of anger, crying or head banging, without apparent cause or reason. (c) A pervasive mood of unhappiness or depression. (d) Fears or a tendency to develop physical symptoms associated with personal or school problems (Nevada Administrative Code, 2008).

Students with learning disabilities. Student participants with learning disabilities qualified for special education services based on the Nevada Administrative Code (NAC) definition as follows:

A pupil with specific learning disabilities is eligible for special services and programs of instruction if the eligibility team, comprised of the persons described in subsection 4, concludes that: (a) The pupil does not achieve adequately for the pupil's age or to meet the state-approved grade level standards when provided with learning experiences and instruction appropriate for the age of the pupil or the state-approved grade level standards in one or more of the following areas: (1) Oral expression; (2) Listening comprehension; (3) Written expression; (4) Basic reading skills; (5) Reading fluency skills; (6) Reading comprehension; (7) Mathematics calculation; or (8) Mathematics problem solving; (b) The pupil: (1) Does not make sufficient progress to meet the age appropriate standards or the state-approved grade level standards in one or more of the areas set forth in paragraph (a) when using a process based on the pupil's response to scientific, research-based intervention; or (2) Exhibits a pattern of strengths and weaknesses in performance or achievement, or both, relative to the pupil's age, the state-approved grade level standards or intellectual development, that is determined by the eligibility team to be relevant to the identification of a specific learning disability using appropriate assessments; (c)

The findings in this subsection are not primarily the result of: (1) A visual, hearing or motor disability; (2) Mental retardation; (3) Emotional disturbances; (4) Cultural factors; (5) Environmental or economic disadvantage; or (6) Limited English proficiency; (d) Interventions implemented in general education classrooms have not remedied any identified underachievement; and (e) Any identified underachievement or severe discrepancy between achievement and intellectual ability is not correctable without special education services (Nevada Administrative Code, 2008).

Limitations

The limitations of the study include:

- 1) The research group was small, based on a sample of convenience, and therefore further research needs to be conducted to obtain a broader emotional profile of students with learning disabilities, students with emotional disturbances, and students without educational disabilities.
- 2) The research group was selected from two public schools in a large school district. Therefore, caution must be used when generalizing results to a broader student population within other schools and/or other school districts.
- 3) The sample selected was a non-random sample and therefore may not be generalizable to a typical sample of adolescent students.
- 4) The participants in this study were students enrolled in either middle or high school. Thus, results should not be generalized to students enrolled in elementary school without further study.

5) The participants in this study were identified as students without disabilities, students with learning disabilities, or students with emotional disturbances based on one state's operational definition of federal definitions related to disability. Processes and procedures for disability identification may differ somewhat in other states. Thus, caution must be used when interpreting the results of this study related to disability and applying the results to students who live in other states.

6) The findings from this research were obtained through the administration of one self-report instrument used to assess emotional intelligence. Thus, the findings are limited to the strength of the selected instrument.

Summary

High scores on emotional intelligence assessments have been positively correlated with success in academic as well as social settings. To ensure that all students including those with disabilities, transition, adapt, and cope with everyday life, it is critical to understand their emotional profiles and subsequently provide appropriate support within the school environment. This support should address both academic and social/emotional needs. Frequently, the focus of student support is solely academic, without support for the emotional component of learning (Webber & Plotts, 2008). The advantage of investigating emotional profiles of adolescents, considering both strengths and weaknesses, is the potential for subsequent design and implementation of school support systems that focus on the emotional development of students. With improved social skills, communication, and emotional understanding, graduation rates may increase,

criminal behavior may decline, and social networks may be enhanced. These changes may promote an increased chance of success within the school environment and beyond.

CHAPTER 2

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to summarize and analyze existing professional literature related to emotional intelligence. Knowledge of this literature is needed to understand the potential impact of emotional intelligence for adolescents with learning and emotional disabilities specifically related to both social and academic success. The chapter begins with a brief review related to the definition of emotional intelligence. Then, the search procedures used to identify literature for possible inclusion in this review are described. Next, the selection criteria used for this review are shared. The remainder of the chapter is organized into four sections: a) summary and analysis of studies related to interpersonal skills, b) summary and analysis of studies related to intrapersonal skills, c) summary and analysis of studies related to adaptability, and d) summary and analysis of studies related to stress management. The chapter concludes with a summary and synthesis of the research on emotional intelligence.

Definition of Emotional Intelligence

While there is no one accepted definition of emotional intelligence, there are several common characteristics within the existing definitions of emotional intelligence (Matthews, Emo, Roberts, & Zeidner, 2006). These characteristics include identification of different emotions, the ability to understand emotions, management of emotions, and

integrating emotions into thought (Matthews et.al., 2006). For the purpose of this study, the Bar-On and Parker (2000) definition will be used. They defined emotional intelligence as a range of emotional, personal, and interpersonal skills that affect one's ability to cope. According to Bar-On and Parker, emotional intelligence includes the emotional, social, and personal dimensions of intelligence. The *BarOn EQi: YV* is a self-report measure that aligns with the definition of emotional intelligence and includes the subscales of adaptability, stress management, interpersonal skills and intrapersonal skills (Bar-On & Parker, 2000).

Search Procedures

A systematic search through three computerized databases (i.e., Scholarly Journal Archive (JSTOR), Education Resources Information Center (ERIC), and Sage International) was conducted. The following descriptors were used: adolescents with emotional disturbances, adolescents with learning disabilities, emotional intelligence, emotional intelligence and social skills, emotional intelligence and students with emotional disturbances, emotional intelligence and students with learning disabilities, emotional intelligence and academic achievement. Next, a manual search of the latest issues of *Personal Relationships*, volume 12, *The Journal of Social Psychology*, volume 12, issue 4, *Developmental Psychology*, volume 35, issue 2, *Educational Psychology*, volume 15, issue 4, *Cognition and Emotion*, volumes 21, issues 1, 2, and 4, *Personality and Individual Differences*, volumes 30 and 36, *Journal of Clinical Child Psychology*, volume 25, issue 4, *Children and Youth Services Review*, volume 21, issue 7, *E-Journal of Applied Psychology: Emotional Intelligence*, volume 2, issue 2, *Child Development*,

volume 74, issue 6, and Education of Children volume 17, issue 3 The last step in the search process involved an ancestral search through the reference lists of the obtained articles.

Selection Criteria

Studies were included in this review if: (a) the procedures and data-based results were published between 1994-2008, (b) the research addressed emotional intelligence; components of emotional intelligence such as intrapersonal skills, interpersonal skills, adaptability, stress management; or emotional intelligence assessments, (c) the study included typical students, gifted students, students with emotional disturbances and/or learning disabilities, or (d) the study included research on social skills. Studies were excluded if: (a) the publication date was earlier than 1994, or (b) the research did not include information on either emotional intelligence or social skills.

Summary and Analysis of Studies Related to Interpersonal Skills

Interpersonal skills are a critical component of any successful relationship. The skills of good listening, understanding and appreciating the feelings of others are considered key components of interpersonal skills (Bar-On & Parker, 2000).

Adults and Interpersonal Skills

Brackett, Warner, and Bosco (2005) investigated the assessment of emotional intelligence as it relates to self-assessed relationship quality. The purpose of their research was to determine if emotional intelligence is related to perceived positive and negative qualities among couples.

Participants were recruited from college level psychology classes at a university. Class credit was offered for participation in this research. A total of 86 heterosexual couples were included. The mean age of the participants was 19.7 years. Of the 86 couples, 40 had been together three to twelve months, 30 had been together for 12-24 months, and 16 had been together for over 24 months.

Groups of 10 to 15 couples were assessed at a time. Couples were separated to different rooms for the administration of the assessments, so that no comparison of answers was done. Each participant was given the *Mayer Salovey Caruso Emotional Intelligence Test*, (Mayer et al., 2002) to measure his or her emotional intelligence. This assessment has tasks divided into four classes of ability, perceiving, using, understanding, and managing emotions. The quality of relationships was assessed individually with the *Quality Relationship Inventory (QRI)* (Pierce, Sarason, & Sarason, 1991). This assessment contains three scales: support, depth, and conflict. *The Relationship Satisfaction Scale*, consisting of five items, was also administered to each participant individually. A modified version of the *Life Space Scales* (Bracket et al., 2004) was also administered to assess behavior and relationship quality.

The results of this research provide data that support a correlation between emotional intelligence and relationship satisfaction. The data indicated that overall, females scored significantly higher than males on emotional intelligence. There was no significant correlation between the emotional intelligence scores of individuals who were together as a couple. Females who scored higher in overall emotional intelligence, indicating high emotional intelligence ability, were not always paired with high scoring males. Females rated depth and support in their relationships significantly higher than their male partners.

Males rated conflict higher than their female partners. Higher scores in depth and conflict indicated more occurrences of conflict or more evidence of depth in these relationships.

The researchers predicted that couples with both individuals scoring high in emotional intelligence would have the best reported relationship outcomes; however, 10 of the 12 comparisons for the highest scoring couples were not significant. Couples with high emotional intelligence scores for both partners only had slightly more positive outcomes. Couples with low emotional intelligence scores for both partners scored significantly higher in conflict, and lower in depth.

This research lends some support to the notion that low emotional intelligence scores negatively influence adult interpersonal relationships. This is the first research of its kind in the area of emotional intelligence and intimate relationships. Further research is needed to support these findings, however, because the sample size was small, with only 172 participants.

Schutte et al. (2001) investigated emotional intelligence and interpersonal relations through programmatic research that included seven studies. In this series of studies, the researchers explored the relationships of emotional intelligence and interpersonal relationships considering seven different aspects of interpersonal relationships (i.e., four related to building relationships and three related to relationship quality). In each of the seven studies, participant emotions were assessed as a measure of emotional intelligence.

The first study was designed to determine if the trait of emotional intelligence was related to empathy and the ability to self monitor in relationships. Participants included 24 students (17 females and 7 males) with an average age of 27.5 years. Emotional intelligence was assessed in each of the seven studies with the same emotional

intelligence scale, *Assessing Emotions Scale (AES)* (Schutte et al., 1998). In addition to this scale, participants were given assessments for interpersonal reactivity and self monitoring. Results from study one indicated that participants who scored higher in emotional intelligence also scored higher in self monitoring and empathy.

Study two was designed to validate the association made in study one, that emotional intelligence and empathy were positively correlated. Participants of study two included 37 teaching interns. All participants were given the *AES* (Schutte et al., 1998), as well as the *Empathic Perspective Taking* scale (Davis, 1980). Results from this study indicated that those who scored higher on emotional intelligence as measured by the *AES* (Schutte et al., 1998) also scored higher on empathic perspective taking, as measured by the *Empathic Perspective Taking* scale (Davis, 1980).

In study three, the researchers investigated the connection between emotional intelligence and social skills. This participant group included 77 university employees, students, and adult attendees to seminars. Participants included 44 women and 33 men, with an average age of 53.22 years. All participants were administered the *AES* (Schutte et al., 1998) as well as the *Social Skills Inventory* (Riggio, 1989) to assess social control, expressivity, emotional control, and emotional and social sensitivity. Higher scores on the *Social Skills Inventory* (Riggio, 1989) indicated higher social skills abilities. Results of this research indicated that higher emotional intelligence scores were significantly associated with higher scores of social skills. There was not a significant difference between emotional intelligence scores, social skills scores and gender.

The relationship between cooperation and emotional intelligences was the focus of study four. The participants included 38 public school employees and college students,

25 women and 13 men. The participants had an average age of 29 years old. Participants completed the *AES* (Schutte et al., 1998). After completion of the assessment, participants were paired with one other participant to engage in a prisoner-dilemma paradigm. In this paradigm, a social trap was presented. Mutual cooperation benefited each participant. Cooperativeness of one participant could be exploited by the others for personal gain. The situation involved a series of choices where one choice would benefit one partner, but not the other; one choice would benefit both partners equally; and one choice would benefit one partner more than the other partner. Results of this research indicated that the higher the scores for emotional intelligence, the greater the number of mutually beneficial choices made, indicating some connection between cooperation and emotional intelligence.

Emotional intelligence and self reported close relationships was the focus of study five. The participants in this study were 43 college students and church attendees, comprised of 23 women, 16 men, and 4 who did not report gender, with an average age of 24 years. After assessment of emotional intelligence, each participant completed the *Fundamental Interpersonal Relations Orientation-Behavior Inventory* (Schutz, 1978). Results supported the hypothesis that higher emotional intelligence scores were correlated to higher scores of interpersonal relations overall as well as several subscales including affection.

Marital satisfaction as it relates to emotional intelligence was the focus of study six. Thirty seven married employees of a health care center and their spouses were involved in this research. After assessing for emotional intelligence, each couple was administered the *Locke-Wallace Marital Adjustment Test* (Locke & Wallace, 1959). This

was a 15-item assessment, answered using a Likert scale. Results from this assessment indicated that those with higher emotional intelligence reported significantly greater marital satisfaction.

Study seven was designed to test the notion that those with high emotional intelligence would prefer a partner high in emotional intelligence, and that those with low emotional intelligence would prefer a partner low in emotional intelligence. Participants were 52 unmarried college students, 28 women and 24 men with an average age of 19 years. Participants were assessed for emotional intelligence and then read descriptions of four prospective dating partners. They were asked to rate each partner on a Likert scale from one to four, one being not satisfying to four being very satisfying. Descriptions were presented in random order. Results indicated that participants rated potential partners highest for those characteristics that most supported high emotional intelligence, the ability to recognize and manage emotions in themselves and others.

The research in these seven studies supports the belief that emotional intelligence is related to positive interpersonal relationships. Characteristics that correlated to higher emotional intelligence scores included, higher marital satisfaction, higher interpersonal skills, higher relationship satisfaction, higher empathic abilities, and a strong ability to identify and recognize feelings in oneself and others.

While the research is comprehensive in the scope of characteristics, the participant groups were small. Most data were obtained at university sites, which may limit generalization of the results.

School Aged Children and Interpersonal Skills

Interpersonal skills are an integral part of social skills. Interpersonal skills include the abilities to interact successfully, socially, and productively with peers (Bar-On & Parker, 2000). Students with educational disabilities often have not only learning difficulties but social difficulties as well. Students with learning disabilities often face challenges in accurately processing social information, and effectively solving problems with peers. Similarly, students with emotional disturbances also face challenges with processing and reacting appropriately to social information. Interpersonal skills within a classroom environment may affect a student's ability to achieve because of an inability to participate in group activities, ask for assistance from peers, or participate in academic discussions.

Watson, Nixon, Wilsos, and Capage (1999) explored the abilities of children to understand the belief systems of others and also investigated the impact of such abilities on social skills. The purpose of this research was to explore, in two studies, the relationship between peer social skills and theory of mind (i.e., specifically false beliefs) in young children. Traditional false-belief tasks require children to explicitly verbalize the relationship between events in the environment, including those between individuals, and behavior (Watson et al., 1999). Theory of mind for this research involved asking the child participants what they thought the purpose of another person's behavior was, with the intent of comparing teacher perceptions of the child's interpersonal skills.

The participants in the first study were 26 three to six year olds that attended a local preschool and private kindergarten. The setting was described as clinical, but it was unclear whether the study took place at the participants' schools or elsewhere.

Researchers introduced a hypothetical situation with an object and a doll, and asked the child a series of questions about how the doll would feel or think in specific situations.

Each child was introduced to this situation individually. In the first study, the researchers assessed false-belief understanding in children and asked teachers to rate children's ability to get along well with their peers. False beliefs were described as children being led through a series of questions about the contents of a box that did not contain what it appeared to contain. In this case, a bandage box contained a plastic animal figurine instead of bandages. There were two components to this false-belief task. The first required children to remember back to a previous knowledge state that was different from their current knowledge state. The question was referred to as the representational change "false-belief" question. The second question was one where the children were expected to explain the action of a doll in terms of a belief that was false. Children were shown that a second plain box actually contained bandages. Then a doll was introduced, and the children were told that the doll had cut herself. She needed a bandage. The doll was placed in front of a bandage box. The children were asked why the doll was looking in the band aid box for band aids. The children had previously been exposed to the contents of the box and therefore knew there were no bandages in the box. They were aware that a plastic animal figure was in the box.

Prior to the introduction of this false belief situation each child was observed for talkativeness. The observations took place during outside free play with peers. The frequency of vocalizations a child directed toward a peer was recorded.

A language assessment was also administered to each child to assess the child's ability and use of words, morphology and sentences. Teachers also rated each of the

participating children on a scale, based on a Likert scale of one through five, involving global questions about each child's engagement in positive interpersonal interactions with peers.

The researchers' hypothesized that children who were able to correctly answer the series of questions including, "What do you think is in the box?" and "Why is Pam (the doll) looking at the box?" would also rate higher in interpersonal skills. This hypothesis was supported. The researchers found that false-belief understanding was significant in predicting teacher rating of preschoolers and kindergarteners positive social skills, when age, language and talkativeness were considered. Correctly expressing the thoughts of the doll, not what the student knew to be in the box, was correlated to high ratings of interpersonal skills by teachers.

This research supports the idea that the ability to understand and predict the thoughts and feelings of others is a strong indicator of good interpersonal skills. The research, however, was limited in its scope with a small sample group and limited age range.

In the second study, Watson et al. (1999) explored a different situation involving the same idea of false belief statements and theory of mind as they relate to interpersonal social skills. Theory of mind for this research was asking the child participants what they thought the purpose of a behavior was, and comparing the child's interpretation of the purpose of behavior (theory of mind) to teacher perceptions of child interpersonal social skills.

The participants in the second study included 52 children between the ages of three years four months, and six years eleven months. Most children came from white upper middle class families.

Similar to the first Watson et al. study, the setting was described as clinical. In this second study, the false belief involved a box of chocolate, instead of a bandage box, in which the chocolate was replaced with colored buttons. The children were shown that the box contained buttons. The researchers asked the children what was in the box “before we opened it” and then introduced a doll to the scenario. The children were then asked what the doll would think was inside the box, after they were reminded that the doll was not present when the box was opened. Correct answers were scored. In the second part of this research the researchers used character puppets (i.e., a mother and son). The mother brought home some chocolate for her son and showed him the chocolate. When her son left the room, she moved the chocolate. The researcher asked the child where the boy would think the chocolate was.

In this portion of the research, the teachers were also asked to complete the *Harter’s Perceived Competence Scale for Children* (Harter, 1979). This scale has both an interpersonal/social skills component and a popularity component for the teacher to rate students. Students were also assessed for language ability. No outside observation was completed in this research.

Results were compared between the teacher’s ratings of children’s prosocial ability and the student’s performance on the false-belief task with the box of chocolate and the puppets. The results indicated that children’s scores on the false belief task were positively correlated with both age and language comprehension. This second study also supports that a child’s ability to understand and predict the feelings of others is positively correlated to their observed interpersonal social skills ability in an educational setting. The research group for this study was of limited age and ethnicity; however, these

preliminary results are supportive of the theory that interpersonal skills are an indicator of social skills ability, as observed by teachers.

In another study related to interpersonal skills and children, Margalit (1995) investigated the effects of computer assisted social skills interventions on the behavioral and social competence of students with special education needs. This research was conducted with the goals of examining the effects of computer aided social skills learning for students with behavior disorders and students with learning disabilities. This research was conducted in Israel.

Participants in this study included 114 male students. The average age of students was 12.5 years old, with an age range of 11 to 15 years of age. In this group of 114 male students, 52 of the students had a learning disability and 62 had a behavior disorder. All students were found to have IQ scores of 75 or higher, based on results of the WISC-R.

The students were taught to use the "I Found a Solution" (Margalit, 1990) computer assisted social skills curriculum within the school setting. The computer program and teacher scripts were used to provide guidance with both instruction and assessment. The intervention in this study included the computer-assisted program and teacher guided work.

Three sources of data were used including: (a) teacher ratings of students' self-control of externalizing and internalizing behaviors, (b) students' self reporting of feelings of loneliness, and (c) peer rating scales of social competence. Teachers rated the student participants using the Social Skills Rating Scale (SSRS) (Gresham and Elliott, 1990). For this study, only self-control behaviors were rated with two types of problem behaviors identified: internalizing and externalizing behaviors.

Prior to the intervention and after, students rated themselves using the *Loneliness and Social Dissatisfaction Questionnaire* (Asher, Parkhurst, Hymel, & Williams, 1990). This questionnaire consisted of 24 items to be rated on a Likert scale of one to five. Students were assessed individually with many of the students having the questions read to them, because of their difficulty with reading.

Peer ratings took place prior to and after the intervention. The peer rating scale consisted of each student rating on a Likert scale of one to five, of how much they would like to work with a specific student. The higher the Likert score, the greater the preference to work with that student. These scores were averaged and standardized across students.

A total of 17 teachers, each with a minimum of four years teaching experience and a certificate to teach special education, implemented the intervention during regular class hours over a four month period with two 45 minute sessions a week. Teachers met weekly at the local university to receive training materials and additional supports for implementing the intervention.

The school-aged student groups consisted of four or five students. Each student worked on his own computer using the social skills curriculum intervention. The teacher lead group discussions, followed a series of steps for problem solving that included reminding students of the day's goal, clarifying the social scenario solutions, asking students to share similar scenarios that had happened to them, and describing options for solutions and emotions in line with the scripts provided. Students were also encouraged to use modeling, and thinking aloud strategies. Teachers provided prompts, encouragement, and feedback to the social decision making.

The hypothesis with this intervention was that the computer-assisted social skill training would have a positive effect on the study participants. Pre- and posttest scores were used to determine the intervention effects. The outcomes indicated that students as a whole group benefited from the program. Following the intervention, the students involved felt less lonely, felt more accepted by their peers, had higher levels of self-control, and displayed less internalizing and externalizing behavior difficulties.

This research demonstrated that improved social skills have an impact on peer relations, acceptance, and interpersonal skills of social problem solving, however, the study only included males. Further research on the effects of this intervention on social skills for students with LD and BD should include female students.

Summary and Analysis of Studies Related to Intrapersonal Skills

Intrapersonal skills include the abilities to identify and recognize emotions in oneself (Bar-On & Parker, 2000). These abilities assist adults in problem solving, communication with colleagues, and personal relationships.

Adults and Intrapersonal Skills

Boden and Berenbaum (2007) investigated the relationship between individual emotional awareness (EA), suspiciousness, and gender. They hypothesized that a manipulation of emotional awareness would lead to variations in levels of suspiciousness among college students, and that this effect may be moderated by gender.

A total of 208 university students comprised two sample groups in this study: one sample group was used to assess emotional awareness and one sample group was used to assess suspiciousness. Within each sample group students were further divided into

groups of high and low emotional awareness, and high and low suspiciousness. The first sample consisted of 90 participants, 45 female and 45 male. Their ages ranged from 17 to 22 years. The second sample consisted of 118 participants, 67 female and 51 male. Their ages ranged from 17 to 23 years.

The research took place in a clinical setting housed at a university. Participants were randomly assigned to one of two experimental conditions, high and low emotional awareness or high and low suspiciousness.

After inducing an unpleasant mood the researchers manipulated emotional awareness by having participants read one of two versions of a story. Emotional awareness was manipulated in the context of stories that the participants read. Two versions of the story were written. Each story was 12 sentences long, and two sentences were changed in one of the stories to manipulate for emotional awareness. In one story, emotion is mentioned in the two changed sentences and in the other emotion is not mentioned.

Then, mood induction was introduced through the experimenter arriving late to the experimental groups, interacting in a hostile manner with the participants, answering questions ambiguously, and canceling the task due to the experimenter's incompetence.

In the first group, where emotional awareness was the dependent variable, anger was rated using a Likert scale. Participants were asked an open-ended question, "what are you feeling right now?" Two blind observers rated the responses (blind to gender and emotional awareness level). In the second sample, where suspiciousness was the dependent variable, participants completed the *Paranoia Scale* (20 items) and rated items using a Likert scale. Men in the low emotional awareness condition reported significantly higher levels of suspiciousness and lower levels of emotional awareness

than men in the high emotional awareness condition. Women in both conditions reported equally high levels of emotional awareness, which were greater than those of men in both conditions and the story manipulation did not affect their levels of suspiciousness. Higher levels of suspiciousness were associated with lower levels of emotional awareness.

Overall, women have higher emotional awareness levels than men.

Researchers found that men in the low emotional awareness condition reported less emotional awareness and greater suspiciousness than men in the high emotional awareness condition. Whereas women in high and low emotional awareness groups did not vary in terms of emotional awareness or suspiciousness. These results suggested that suspiciousness may result from low emotional awareness and less clarity about emotions.

Parker Taylor, and Bagby (2001) explored the relationship between emotional intelligence and alexithymia. Alexithymia is defined as having difficulties in identifying and describing feelings (Taylor, Bagby, & Parker, 1997). The participants in the Parker et al. study included 734 adults (329 male and 405 female) living in small towns in central Ontario, Canada. The average age of participants was 32 years old, with 86% identifying themselves as White, 4% Black, 4% Asian, 2% Native America, and 4% unidentified.

Participants were individually administered the *Toronto Alexithymia Scale (TAS-20)* (Bagby, Parker, & Taylor, 1994), as well as the *BarOn Emotional Quotient Inventory (EQ:i)* (Bar-On, 1997). Results of the two assessments were compared with the hypothesis that the scores would be inversely related.

The results of the study indicated that alexithymia and emotional intelligence are independent of each other but strongly inversely correlated. Further, results indicated

that the total *TAS-20* scores were negatively correlated to the emotional intelligence subscale of intrapersonal skills.

School-Aged Children and Intrapersonal Skills

Intrapersonal skills are critical to the daily functioning of children, including functioning in educational settings. Children who have an inability to identify and cope with their own emotions often have difficulty creating and sustaining peer relationships. There has been a proposed link between anxiety and problems with peer relations with children (Inderbitzen, Walters, and Bukowski, 1997). It has also been noted that among children who suffer from social phobia, more than half of their socially distressing situations occur in school settings (Beidel & Morris, 1995). Given that most of the distressing situations labeled as distressing by children with social phobia occur among their peers, it is clear that intrapersonal skills are a major concern for educational environments, where most children spend a majority of their day.

Inderbitzen et al. (1997) examined the relationship between socio-metric ratings of peers, and the self reported social anxiety of students. This research was conducted to identify correlations between social cognitive, self perception, behavior, and peer acceptance to better understand the causes of peer rejection. The primary purpose of this study was to investigate the relationship between socio-metric nominations of popularity and social anxiety for an adolescent population. The researchers hypothesized that social anxiety as self-reported by the students, would be significantly negatively correlated to peer acceptance, as reported by student peers.

The participants in this research were 973 students in grades six through nine, 473 boys and 500 girls. Students were from eight different schools in a midsized midwestern city

and a neighboring small town. The schools included one public school, one Lutheran school, and three parochial schools in the city, and two public schools and one parochial school in the neighboring small town. The researchers reported that a majority of the students were Caucasian (82%). They did not specify the remaining ethnicity percentages. The participants' SES was represented as 10% upper middle class, 17% middle class, 21% low middle class, 11% upper low class, 39% low class, and 2% impoverished.

Rating scales were administered to students and peers. Adolescents, rating themselves, were given the *Social Anxiety Scale for Adolescents – SAS - A* (LeGreca & Stone, 1993) to assess their perceived level of social anxiety, with higher scores hypothesized to be indicative of increased social anxiety. Adolescents, rating their peers, were given a socio-metric nomination task. This task was to list three same gender classmates from their class roster who fit seven descriptors, which included: liked most, liked least, best leader, best sense of humor, fights the most, easiest to push around, and most cooperative. Three names were required for each of the seven descriptors, the first name being the highest ranked for that descriptor. Nominations for these descriptors were standardized within the school, by gender, and were used to create socio-metric groups. A social preference score was created, by subtracting the number of “the least liked” for a specific student from the number of “most liked” for a student. Students were classified as popular, rejected, neglected, controversial, and average. It should be noted that previous research has indicated that girls have a tendency to report higher scores on the *SAS-A* (LeGreca & Stone, 1993) than boys.

The results of this research suggest that social anxiety may intercede the peer problems of some youth. Neglected and rejected students reported greater social anxiety than did average, popular, or controversial students. The neglected and rejected groups reported the highest *SAS-A* (LeGreca & Stone, 1993) total scores, as compared to the controversial group which reported the lowest scores. Both the average and popular groups reported intermediate levels of social anxiety. Through further analysis it was also revealed that both the neglected and rejected subgroups, reported significantly higher social anxiety than did the average popular and controversial groups.

These results suggest that self reported social anxiety may contribute to the peer problems of some youth, that social anxiety and distress may play an equally important role in peer neglect and peer rejection, and that fear of negative impression by peers is specific to rejection. These data also suggest the fears of negative evaluation may result in active peer rejection and, without these fears, adolescents experience social neglect and isolation.

This research was comprehensive in relation to student perceptions of popular and rejected students. This research was limited in empirical evidence. Students used rating scales to assess other students and themselves. There was no observation of student behavior, which may produce different interpretive results from rating scales.

Barber, Bolitho, and Bertrand (1999) researched intrapersonal skills and peer pressure as influencing predictors of adolescent drug use. The participant sample for this study was 1942 junior and senior high school students, ranging in age from 12 to 18 years, from 95 schools in Alberta, Canada.

The students were given a questionnaire, comprised of four sections. The four sections included questions that related to the students' feelings about (a) themselves, (b) their demographic characteristics, (c) the school environment and their social lives, and (d) experiences with cigarettes, alcohol, and illicit drugs. For each of the class of drugs, marijuana, solvents, cocaine, or crack, hallucinogens, prescribed drugs, amphetamines, and narcotics, students were asked using a Likert scale from one to seven, how often they had used these drugs in the past 12 months. The higher the rating, the more frequent the use.

Intrapersonal characteristics of each child were assessed with the *Child Behavior Checklist – CBC* (Boyle et al., 1987). This scale has standardized subscales for somatization disorder, emotional disorder, conduct disorder, and hyperactivity. Self-esteem was specifically measured with Rosenberg's 10-item scale for adolescents (Rosenberg, 1989). Students also answered three questions related to peer pressure and drug use. Parental and family involvement was also assessed using self-report measures administered to the student at the same time as the previously mentioned scales. All questionnaires and scales were administered at the students' school during school hours.

Results of the assessments varied by age and gender. It was found that drug-taking behavior among boys between the ages of 12 and 13 years was closely associated with the drug use of friends, conduct disorders and emotional disorders. Findings for girls of the same age differed somewhat. The major influences of drug use were whether their friends approved of drug use, peer pressure, and friends drug use. Conduct disorder was found to be significantly related to drug use only among boys in this age range. Peer pressure was the dominant factor in girls drug use at this age. For boys aged 14 and 15

years old, conduct disorder and friends' drug use were the dominant factors for drug use. However, for girls in this age group, conduct disorder became much more significant among those girls who used drugs. Peer pressure became more prevalent as a factor in boys drug use as they got older (i.e., 16 and 17 year old boys).

This study supports the hypothesis that intrapersonal factors are a strong influencing factor in drug use among adolescents. As adolescent boys grow older, the influence of peer pressure for drug use strengthens. With females it was found that intrapersonal factors became strong influencing factors for drug use.

This study was wide in scope including almost 2000 adolescent students, however, the study employed only self-report measures. This may cause some respondents to answer with what they consider to be more appropriate answers, and results may be skewed because of this.

Summary and Analysis of Studies Related to Adaptability

Adaptability as a trait of emotional intelligence affects one's ability to adjust to change, manage everyday problems and be flexible and realistic (Bar-On & Parker, 2000). This trait impacts many aspects of life, including the changing social climate of school for adolescents, work and adult relationships. The ability to adapt is key to developing productive and successful relationships as well as a functional lifestyle.

Adults and Adaptability

Ramos, Fernandez-Berrocal and Extremera, (2007) examined the influence of perceived emotional intelligence (PEI) and intrusive thoughts on emotional responses following a stressful event. This study included 144 female participants, with an average

age of 19.5 years, using the *Trait Meta-Mood Scale (TMMS)* (Salovey et al., 1995). The *TMMS* is used to assess perceived ability to attend to moods (attention); discriminate clearly among moods (clarity); and regulate moods (repair). The purpose of the research was to examine the relationship between PEI, intrusive thoughts, and adjustment to a stressor induced in the laboratory, on two separate days. The setting was a university where the female participants viewed a video. PEI was initially assessed with the *TMMS* (Salovey et al., 1995) prior to the session.

In session one, participants were shown a 14-minute clip of a woman being assaulted, then asked to complete the *Profile of Mood States (POMS)* (Shacham, 1983) to assess their emotional response. In session two, participants were asked to first complete a questionnaire that measured the frequency of intrusive thoughts about the assault viewed the day before, then the participants were shown the same video again and asked to complete the *POMS* (Shacham, 1983) again.

Different effects of the *TMMS* (Salovey et al., 1995) factors on the different dimensions were evident. Individuals with high attention, who became involved in the feelings of characters in the video, experienced greater unease towards the people's suffering. Understanding the reason for stress is the first step in diminishing distress. Individuals with high attention and clarity proved to be less inhibited. People with high clarity of feeling reported feeling less fatigue and depression after watching the video for the first time. Individuals who are clear about their mood may experience less emotional impact from an acute stressor. The findings suggest that individuals with higher emotional clarity and repair will experience less negative emotional responses and intrusive thoughts after an acute stressor, which enables them to adapt more easily to life

experiences. The findings of this study provided evidence that individuals with higher emotional clarity and repair experienced less unease after being exposed to an acute stressor, which could enable them to cope with and adapt to the event. Cognitive adjustment leads to a smaller number of intrusive thoughts which supports emotional adaptation to the experiences.

Strategies to manage traumatic situations effect the duration and psychological impact of these events and may limit the continuation or depth of the effects of such an event. PEI is associated with lower levels of depression, higher satisfaction, and adequate resolution of moral and emotional dilemmas.

This study only included female participants. Therefore, generalization of the findings is limited. The reported responses may not be representative of male responses.

Parker, Summerfeldt, Hogan, & Majeski (2004) researched the impact of emotional intelligence and academic success in students transitioning from high school to college. These researchers noted that many of the challenges facing new college students include making new relationships, modifying relationships with family, living and functioning independently, mastering different tasks, such as budgeting, and time management. According to Parker et al., these appear to be some of the most common reasons that undergraduates withdraw from university programs. Thus, the purpose of their research was to examine the relationship between emotional intelligence and academic achievement, specifically how first year college students were able to adapt to changing environments, form new relationships, modify existing relationships, learn study habits for a new academic environment, and function as independent adults. Academic success was measured by the end-of-year GPA of the first year as a full-time college freshman.

This study used the transition from high school to university as the context for examining the relationship between various emotional abilities, related to adaptability and academic achievement.

The participants were 372 (78 male and 294 female) with an average age of 19.34 years. All students were first-year, full-time students at a small university in Ontario. All students had graduated from high school within the past 2 years. Students were recruited from a psychology class and asked if they would participate in a study related to academic success and personality. At the start of the school year in September, participants completed the *BarOn Emotional Quotient Inventory Short Form (EQ:i Short)* (Bar-On, 1997). (Bar-On, 1997), containing 51 questions. Researchers compared the results of each individual's *EQ:i Short* (Bar-On, 1997) assessment to their end-of-the-year grades, to determine if there is a correlation between emotional intelligence and academic success. The *EQ:I Short* (Bar-On, 1997) has a composite emotional intelligence score, and four subscale scores, including interpersonal intelligence, intrapersonal intelligence, stress management and adaptability.

Students were considered academically successful if their end-of-year grades were 80% or above. Students considered academically unsuccessful had end-of-year grades of 59% or below. The academically successful group scored higher than the academically unsuccessful group on overall emotional intelligence. These students also scored significantly higher in adaptability and interpersonal ability compared to the other abilities assessed by the *EQ:i Short* (Bar-On, 1997).

This research strongly supports the theory that the ability to adapt and problem solve are crucial skills for success among new college students, however, the sample group was

limited. The sample group included only full-time incoming freshman, who had graduated from high school within the last two years. This excludes a large portion of students who start college later in life. Also, most students, in this study, were Caucasian, excluding a major population of students attending college.

School Aged Children and Adaptability

Schwean et al. (2006) investigated the factors described in Bar-On's (1997) emotional intelligence model related to the social emotional competencies of gifted children and also investigated the relationship between school environments and the psychological well being of these children. One hundred sixty nine children in grades four through eight, including 84 males, and 85 females participated in this study. The mean age of students was 11 years old. One hundred twenty three of the students were enrolled in academic programs designed for gifted students. The remaining 46 students (also gifted) were enrolled in general education classrooms. The second sample consisted of 1200 children, with average ability and average achievement. For the purposes of this research, average ability students were matched with gifted students, based on age and gender. Students were administered the *EQ-i:YV* (Bar-On & Parker, 2000) and questionnaires were distributed to teachers and parents of the students.

Independent group t-tests were conducted to compare emotional intelligence scores based on parent, teacher, and self-reports of gifted students in the special program and gifted students in the general education program. There was a significant difference in the self-report scores between two of the gifted groups, with the gifted students in general education programs scoring higher in the adaptability scales than gifted students in special programs. For parent ratings, a significant difference between the gifted students

in the special program and those in the regular program emerged. Gifted students enrolled in the general education programs were rated higher in adaptability, total EI score, and intrapersonal subtests. For teacher ratings, a significant difference was found between gifted students in the special program and those not in the special program. Teachers rated gifted students who were not in the special programs higher in adaptability than those in the gifted program. Females scored significantly higher than males in three scales, intrapersonal, interpersonal, and total emotional intelligence scores.

Emotional intelligence total and factor scores of gifted children in general were similar to the normative data presented in the scoring manuals of the assessment, particularly in comparison to the matched sample of average achieving students. Females reported higher intrapersonal, interpersonal and total emotional intelligence scores than males without regard to their classification as gifted or average ability. The findings do not support the claim that gifted children are more emotionally vulnerable than typical peers. This research also suggested that students who are gifted, and who stay in regular education programming have a better ability to adjust and adapt to external demands than students who are educated in a special gifted setting, based on reported scores from parents, teachers and students.

An examination of the regulation of emotion and adjustment, specifically related to depression and problem behaviors, was the focus of research conducted by Silk, Steinberg, and Morris (2003). In this study, 152 adolescents (73 males and 79 females) between the ages of 12 and 17 years were regularly assessed over a period of a week with experience sampling forms.

Students were instructed through an orientation to fill out an experience sampling form each time a provided wristwatch beeped. The adolescents were prompted to think about the previous hour time frame and record what they had been doing, as well as responses to emotional eliciting experiences within that time frame mentioned. The *Youth Self Report – YSF* (Achenbach, 1991) and the *Childhood Depression Inventory – CDI* (Kovacs, 1985) were used to assess problem behaviors and depressive symptoms respectively.

Results of this research indicated that adolescents who did not regulate negative affect during recorded real life emotional experiences were more likely to report depressive symptoms compared to those who recovered from negative emotional experiences easily. Greater emotional intensity was related to elevated depressive symptoms. The adolescents in this study who reported using disengagement in emotional instances, or involuntary engagement also reported more depressive symptoms and problem behaviors.

The findings support the idea that adolescents who are unable to easily adapt to stressful situations are not as able to cope with problems. This research was conducted solely through self-reporting, which may skew the results to a more positive direction.

Summary and Analysis of Studies Related to Stress Management

Stress management includes the ability to remain calm and work well under pressure (Bar-On & Parker, 2000). Emotional regulation includes the characteristics of managing stress. As defined by Thompson (1994), emotional regulation includes processes to monitor, evaluate and modify emotional reactions to accomplish one's goals.

Adults and Stress Management

Parker and Berenbaum (2007) examined the circumstances under which approach coping was more effective in a stressful situation. The approaches to coping examined included emotional-approach coping and problem-focused coping. Specifically, this research compared problem-focused coping with emotional-approach coping.

Participants between the ages of 18 and 22 years each identified a current stressful situation, and then were randomly assigned to write for 15 minutes about their feelings (emotional-approach), or write about ways to solve their problem (problem-focused coping). These participants also completed a self-report measure that assessed their coping during the two weeks after the exercise. Researchers viewed emotional-approach coping not as acting on emotions, but as coping by identifying, processing, and expressing their emotions, and providing information about their goals.

Materials to measure clarity/communication of emotion included The *Trait-Meta Mood Scale – TMMS* (Salovey et al., 1995), 11 items, clarity of emotions subscale; the *Toronto Alexithymia Scale – TAS 20* (Bagby et al., 1994), difficulty identifying emotions subscale – 7 items, the difficulty describing emotions, 5 item scale); and the *Ambivalence Over Emotional Expressiveness Questionnaire - AEQ*, 28 items (King & Emmons, 1990). Attention to emotions was measured using the *TMMS* (Salovey et al., 1995), 13 item attention to emotions subscale; and the *TAS 20* (Bagby et al., 1994) *Scale*, 8 item externally oriented thinking subscale. Mood and physical symptoms were assessed using self-report methods. The *Positive and Negative Affect Schedule (PANAS)* (Watson, Clark, & Tellegen, 1988) (positive affect = PA; negative affect = NA) was administered.

To examine mood the *Physical Limbic Languidness (PILL)* (Pennebaker, 1982) was administered consisting of 54 items assessing a variety of physical symptoms.

Participants were asked to identify the current stressful situation. Then, participants were asked to write about either “understanding their feelings relating to the stressful situation” or “concentrating on doing something about the stressful situation.” Two weeks later participants returned to the research setting to complete the adjustment measures, *PANAS* (Watson et al., 1988) and *PILL* (Pennebaker, 1982).

The average emotion-approach coping score of participants in the emotion-approach coping condition was significantly higher, than the emotion-approach score of participants in the problem-focused condition. The average problem-focused coping score of participants in the problem-focused coping condition, was significantly higher than the problem-focused coping score of participants in the emotional-approach coping condition.

In this research, women engaged in more emotional-approach coping than did men, whereas men engaged in more problem-focused coping than did women. Also included in the findings of this study was that gender regulated the effectiveness of different coping strategies. Men who reported they engaged in more emotion-identification coping, emotion-expression coping, emotion-support coping and problem-focused coping had higher levels of positive affect than men who reported low amounts of such coping strategies.

School Aged Children and Stress Management

Chung and Elias (1996) investigated behavior patterns of adolescents when coping with stress, social competence and self efficacy. A sample group of 556 adolescents were

included in this research. Patterns of problem behaviors such as delinquent behavior, smoking and use of drugs and alcohol were studied relative to their connection to the adolescents' responses to questions about personal and social demands, self-efficacy, social competence and life events. Participants were adolescents in grades 9 through 12, with 274 males and 282 females. The participants were administered voluntary surveys in their school classrooms. Survey questions were related to antisocial behavior and delinquency as well as perceived confidence and life events.

With these surveys adolescents were grouped into four behavior clusters, low-risk with experimentation, moderate-risk, and high risk. Adolescent responses were assigned to these groups based on their survey responses to questions related to risky behaviors such as drug and alcohol use, sex, criminal behaviors, as well as social involvement, academic success and perceived social ability.

Results indicated links between problem behaviors and life events and feelings of self efficacy. A co-occurrence of adolescent problem behaviors and low self efficacy was found in adolescents who reported low academic performance, low participation in nonacademic activities, or negative life events. These characteristics were less likely to be found in the presence of high academic self efficacy, involvement in nonacademic activities, and life events that were reported as more positive.

This research supports the idea that low self-efficacy in academics, low self-efficacy in social skills, and low self-efficacy in the ability to cope with stressful events are strong predictors of problem behaviors. Additionally, this research supports the premise that the ability to successfully manage stress is important for adolescents, and may impact academics as well as social relationships.

Summary and Synthesis of Research Related to Emotional Intelligence

Research supports that the theory of emotional intelligence and its subcomponents of interpersonal skills, intrapersonal skills, adaptability and stress management, are important in every aspect of daily functioning for both children and adults. The research for children indicates a strong correlation between interpersonal skills and teacher perceptions of social skills ability (Watson et al., 1999). Margalit (1995) found that improved interpersonal skills among adolescents influences peer perceptions of acceptance and problem-solving ability.

Adult satisfaction with relationships and intrapersonal skills were correlated through seven studies conducted by Schutte et al. (2001), with strong correlations found among abilities of identification and cooperation among others, with emotional intelligence. Similarly, Inderbitzen et al. (1997) found that intrapersonal abilities impacted social impressions of children and social acceptance. Intrapersonal skills had a significant impact on adolescent drug use based on the research of Barber et al. (1999).

Adaptability in young adults beginning college was found to be a significant factor in academic success according to the research of Parker et al. (2004). Silk et al. (2003) also found that students unable to regulate their emotions in changing situations reported more depressive symptoms than students who were better able to emotionally adapt.

Stress management in adults appeared to be different between men and women. Parker and Berenbaum (2007) found that women engaged in more emotional-approach coping than men. Men who engaged in other forms of coping such as emotion-identification and emotion-support coping reported higher levels of positive affect than men who reported

less coping. Stress management in adolescents appears to impact both behavior and academics (Chung and Elias, 1996).

Based on this review of literature, it is clear there is a connection between the components of emotional intelligence and successful functioning as adults, children, and students. It will become increasingly important to identify students' areas of weakness and strengths in emotional intelligence as schools increase expectations and standards for all students, including those with disabilities. This knowledge has the potential to help school personnel develop appropriate support programs for students with low emotional intelligence scores. Similarly, this knowledge has the potential to help parents as they work with their children on social/emotional development. To date, limited information is available related to the emotional intelligence of adolescents and no studies were located that involved comparisons of students without disabilities to those with learning disabilities and those with emotional disturbances. Knowledge of similarities and/or differences between students with and without disabilities in the emotional intelligence components of intrapersonal, interpersonal, stress management, and adaptability will provide valuable information related to appropriate areas to target for the purpose of increasing students' success in school and home environments.

CHAPTER 3

METHOD

Overview

There is limited research related to emotional intelligence and its subcomponents of intrapersonal skills, interpersonal skills, stress management, and adaptability among students with disabilities. There is, however, some evidence and expert opinion related to the effects of emotional intelligence on school adjustment and academic achievement among general education students (Salovey & Sluyter, 1997). Ladd (1990) found that children are more likely to achieve academically when they make friends in kindergarten. Research also indicates that children who are disliked and rejected by their peers are more likely to drop out of school with an average drop out rate of 25% (Asher & Parker, 1989). Given these initial findings related to the importance of emotional intelligence, additional research that involves both students with- and without disabilities is needed.

The purpose of this study was to investigate the emotional profiles of adolescent students (ages 13-18 years old) with learning disabilities and the emotional profiles of students with emotional disturbances. Specifically, profiles related to intrapersonal skills, interpersonal skills, adaptability, stress management, and composite EQ scores were explored and compared to the same profiles among students without disabilities, using the *BarOn EQi:YV* (2000). In addition to examining the subcomponents of emotional intelligence as separated on the *BarOn EQi:YV* (e.g. intrapersonal skills, interpersonal

skills, adaptability, and stress management), comparisons were made between the two groups of students with disabilities, and a group of students without a disability.

Research Question

Research Question: Is there a difference in emotional intelligence, as measured by the *BarOn EQi: YV* assessment, among adolescent students without an educational disability, adolescent students with emotional disturbances, and adolescent students with learning disabilities, within the four subscales of intrapersonal, interpersonal, stress management, and adaptability, and the composite EQ score?

It was predicted that there would be differences in emotional intelligence scores of adolescents without a disability, adolescents with learning disabilities and adolescents with emotional disturbances within the four subscales, and the composite EQ score, as well as between gender. Further it was predicted that the emotional intelligence scores of students with emotional disturbances would be lower overall than those with learning disabilities and students without a disability. It was also predicted that students with learning disabilities would have lower emotional intelligence scores overall and within the four subscales than students without a disability. Based on gender, female students were predicted to score higher than males in all subscales and overall.

Participants

The participants in this study were middle and high school students enrolled in two public schools in a large metropolitan school district in a southwestern state. A licensed

school psychologist administered the instrumentation used in this study and another licensed school psychologist served as the Reliability Checker.

Participant Pool

There were a total of 216 students with learning disabilities, 19 students with emotional disturbances, and 2259 students without an educational disability enrolled in the participating high school. There were a total of 50 students with learning disabilities, 8 students with emotional disturbances, and 1192 students without an educational disability enrolled in the participating middle school. From this participant pool, all students with a learning disability and all students with emotional disturbances from both the middle and high school were invited to participate in the study. From the total pool of students without an educational disability from both schools, 75 were randomly selected and invited to participate in the study.

Participant Demographics

A total of 66 adolescents (38 males and 28 females) participated in this study. Of these 66 participants, 14 had emotional disturbances, 33 had learning disabilities, and 19 had no educational disability. Those with emotional disturbances qualified for special education services based on the Nevada Administrative Code (NAC) definition as follows:

A pupil with serious emotional disturbances is eligible for special services and programs of instruction if the eligibility team, comprised of the persons described in subsection 4, concludes that: (a) The pupil exhibits one or more of the characteristics described in subsection 2; (b) These characteristics have been evident for at least 3 months; (c) The characteristics adversely affect the ability of the pupil to perform

developmental tasks appropriate to the pupil's age: (1) Within the educational environment, despite the provision of intervention strategies; or (2) In the case of a pupil under school age, in the home, child care or preschool setting; and (d) Special education support is required to alleviate these adverse effects. 2. The requirement of paragraph (a) of subsection 1 is satisfied by the consistent manifestation of any of the following characteristics: (a) An inability of the pupil to build or maintain satisfactory interpersonal relationships within the school environment, including: (1) Withdrawal and isolation of the pupil from others. (2) Efforts by the pupil to obtain negative attention from others through punishment, ostracism or excessive approval. (b) Inappropriate behavior or feelings under normal circumstances, including atypical behavior such as outbursts of anger, crying or head banging, without apparent cause or reason. (c) A pervasive mood of unhappiness or depression. (d) Fears or a tendency to develop physical symptoms associated with personal or school problems (Nevada Administrative Code, 2008).

The participants with learning disabilities qualified for special education services based on the Nevada Administrative Code as follows:

A pupil with specific learning disabilities is eligible for special services and programs of instruction if the eligibility team, comprised of the persons described in subsection 4, concludes that: (a) The pupil does not achieve adequately for the pupil's age or to meet the state-approved grade level standards when provided with learning experiences and instruction appropriate for the age of the pupil or the state-approved grade level standards in one or more of the following areas: (1) Oral expression; (2) Listening comprehension; (3) Written expression; (4) Basic reading skills; (5)

Reading fluency skills; (6) Reading comprehension; (7) Mathematics calculation; or (8) Mathematics problem solving; (b) The pupil: (1) Does not make sufficient progress to meet the age appropriate standards or the state-approved grade level standards in one or more of the areas set forth in paragraph (a) when using a process based on the pupil's response to scientific, research-based intervention; or (2) Exhibits a pattern of strengths and weaknesses in performance or achievement, or both, relative to the pupil's age, the state-approved grade level standards or intellectual development, that is determined by the eligibility team to be relevant to the identification of a specific learning disability using appropriate assessments; (c) The findings in this subsection are not primarily the result of: (1) A visual, hearing or motor disability; (2) Mental retardation; (3) Emotional disturbances; (4) Cultural factors; (5) Environmental or economic disadvantage; or (6) Limited English proficiency; (d) Interventions implemented in general education classrooms have not remedied any identified underachievement; and (e) Any identified underachievement or severe discrepancy between achievement and intellectual ability is not correctable without special education services (Nevada Administrative Code, 2008).

Of the 66 participants in this study, 25 were white, 25 were African American, 14 were Hispanic and 2 were Asian/Pacific Islander. Eleven participants were middle school students and the remaining 55 were high school students. The ages of these students ranged from 13.0 to 18.7. See Table 1 for a detailed summary of participant characteristics.

Table 1

Demographics of Students

| Characteristics | Students with ED | Students with LD | Students without Disability |
|------------------|------------------|------------------|--------------------------------|
| Gender | | | |
| Male | 11 | 22 | 5 |
| Female | 3 | 11 | 14 |
| Ethnicity | | | |
| White | | | |
| Male | 8 | 5 | 1 |
| Female | 2 | 2 | 7 |
| African American | | | |
| Male | 2 | 9 | 2 |
| Female | 1 | 8 | 3 |
| Asian/PI | | | |
| Male | 0 | 1 | 0 |
| Female | 0 | 0 | 1 |
| Hispanic | | | |
| Male | 1 | 7 | 2 |
| Female | 0 | 1 | 3 |
| Mean Age | | | |
| Male | 15.8 | 15.1 | 14.4 |

Note. Table continues

| | | | |
|--------------------|------|------|------|
| Female | 16.3 | 15.7 | 15.6 |
| Number of Students | | | |
| From Middle School | | | |
| Male | 0 | 5 | 2 |
| Female | 0 | 2 | 2 |
| Number of Students | | | |
| From High School | | | |
| Male | 11 | 17 | 3 |
| Female | 3 | 9 | 12 |

Data Collector

The data collector was a licensed school psychologist in the state of Nevada. The data collector was trained on the administration and scoring of the *BarOn EQi:YV* (2000) and had 3.5 years experience administering and scoring standardized assessments to school-aged students.

Reliability Checker

The reliability checker was a licensed school psychologist in the state of Nevada. She had 15 years experience administering and scoring standardized assessments to school-aged students. For the purposes of this study, the reliability checker was trained to score the *BarOn EQi: YV*.

Setting

The participating schools were two public schools, one middle school and one high school in a large urban school district located in the southwestern area of the United States. The high school had a total student population of 2575 students, with 316 students eligible for special education services, or 12.2%. The high school had 103 general education teachers, and 17 special education teachers. The ethnic makeup of the student population was 31.2 % White, 29.9% African American, 9.8% Asian/Pacific Islander, 0.6% American Indian, and 27.8% Hispanic. The middle school had a total student population of 1349, with 157 students eligible for special education services, or 11.6%. The middle school had 48 general education teachers, and 9 special education teachers. The ethnic makeup of the school was 20.5% White, 32.5% African American, 8.7% Asian/Pacific Islander, 0.8% American Indian, and 37.5% Hispanic.

Instrumentation

The BarOn EQi:YV

The instrument used for this research was the *BarOn EQi:YV* (Bar-On & Parker, 2000). The instrument and all protocols were purchased through the publisher. (i.e., Multi-Health Systems). This instrument is a self-report instrument normed on children and adolescents ages seven years old to 18-years old. The instrument was normed on a community-based sample of children and adolescents from the United States and English-speaking locations in Canada. The norm sample population consisted of 9172 children and adolescents (Bar-On & Parker, 2000). The test-retest reliability of this assessment was reported between .77 and .89 for the subscales, Total EQ, and General

Mood and Positive Impression Scales. Test-retest reliability was determined using a sample of 60 children, with a mean age of 13.15 and a test retest interval of three weeks. Validity was assessed by examining 133 items on the *BarOn EQi* assessment for adults. A small group of experts examined these questions, and selected 25% of these items to include in the youth version of the assessment. Another 25% of the items were reworded, from the adult version of the assessment, and a new set of items were also created for the youth version. The construct validity of the youth version of the assessment, when compared to the already published adult version ranged from .56 to .88. This assessment includes both a longer (*BarOn EQi:YV*) and a short form (*BarOn EQi:YV (S)*). For the purposes of this research, the longer form was used. The longer form of the *BarOn EQi:YV* includes a Total Emotional Intelligence Scale based on the subscales of Interpersonal, Intrapersonal, Adaptability, and Stress Management. The instrument also includes a General Mood Scale, a Positive Impression Scale, and an Inconsistency Index (Bar-On & Parker, 2000).

Design and Procedures

This study was conducted over a six-week period and consisted of individual assessments of each participating student using the *BarOn EQi:YV*. The four phases included in this study were participant selection, assessment administration, training of reliability checker, and assessment scoring.

Phase One: Participant Selection

Identifying potential participants. Phase one involved participant selection for the study. Students were identified through the collection of age and disability-related

information from the school site. Specifically, students selected for this research were chosen on the basis of their age, (i.e., 13 to 18 years old), having no special education eligibility, or having a special education eligibility based on identified learning disabilities or emotional disturbances. General education students were randomly selected. A database of all students who could be considered for the research was created based on age, and being a general education student. Once the database was compiled, 75 students were randomly selected through a computer generated random selection system. Seventy-five general education students from the total sample of students without disabilities were selected to receive the consent and assent forms.

Obtaining consent and assent. Informed Consent forms were obtained from parents of the students included in the research. The student investigator sent parents of potential participants envelopes with these forms through U.S. Mail. These envelopes contained parent consent forms as well as student assent or student consent forms depending on the age of the student. Also, included was a self-addressed stamped envelope. The parents returned the consent and assent forms to the student investigator via U. S. Mail.

Phase Two: Assessment Administration

Phase two was the assessment administration phase of the research. Each student participant was administered the *BarOn EQi:YV* individually by a licensed school psychologist (i.e., the student investigator). Each of the 60 self-report questions was read aloud to the student by the school psychologist/student investigator and the student was directed to respond verbally with one of the provided options (i.e., very seldom true of me, seldom true of me, often true of me, and very often true of me). Each response was recorded on the response protocol and used in the scoring of the scales and subscales.

Phase Three: Training of Reliability Checker

Phase three involved the training of the reliability checker. The reliability checker was another licensed school psychologist, and was trained on the administration and scoring of the *BarOn Emotional Quotient Inventory: Youth Version* by the student investigator. The student investigator, a licensed school psychologist in the school district where the research was conducted, trained the reliability checker to ensure thorough understanding of appropriate scoring procedures.

The training session lasted for one hour and included a scoring (a) Demonstration Phase, (b) Guided Practice Phase, and (c) Independent Practice Phase. The training session began with the Demonstration Phase. During this training phase, the student investigator demonstrated the scoring process using a *BarOn Emotional Quotient Inventory: Youth Version* protocol. The reliability checker observed the demonstration. After this demonstration, the training progressed to the Guided Practice Phase. During this training phase, a second protocol was scored jointly by both the student investigator and reliability checker. After this guided practice, the training progressed to the Independent Practice Phase. During this training phase, the reliability checker scored a third protocol without assistance from the student investigator. Upon completion, the student investigator checked the scoring. A scoring criterion of 100% accuracy was established for independent practice. This criterion was met after one trial. No further training was deemed necessary.

Phase Four: Assessment Scoring

Phase four was the assessment scoring phase of the research. Each protocol was scored individually by the school psychologist using the *BarOn Emotional Quotient Inventory:*

Youth Version Technical Manual (Bar-On & Parker, 2000). Scores were obtained for each student for all four subscales (i.e., Interpersonal, Intrapersonal, Adaptability, and Stress Management). Subsequently, the subscale scores were used to determine a Total Emotional Intelligence score. Twenty-five percent of the scored protocols were rescored by the reliability checker to determine inter-scorer reliability.

Treatment of the Data

Data from the *BarOn EQi:YV* was analyzed to answer the following question: Is there a difference in emotional intelligence, as measured by the *BarOn EQi: YV* assessment, among adolescent students without an educational disability, adolescent students with emotional disturbances, and adolescent students with learning disabilities, within the four subscales of intrapersonal, interpersonal, stress management, adaptability, and composite EQ scores?

The data were analyzed with a three (non-disability and disability groups) by two (gender) by four (subscale) ANOVA with repeated measures on subscales. Simple main effects analysis was used to determine the nature of significant interactions. An alpha level of .05 was used throughout the analysis.

CHAPTER 4

RESULTS

The purpose of this study was to investigate the emotional profiles of adolescent students (ages 13-18 years old) with learning disabilities and the emotional profiles of students with emotional disturbances. Specifically, profiles related to intrapersonal skills, interpersonal skills, adaptability, stress management, and composite EQ scores were explored and compared to the same profiles among students without disabilities, and students with learning disabilities or emotional disturbances, using the *BarOn EQi:YV* (2000). The researcher examined the subcomponents of emotional intelligence as separated on the *BarOn EQi:YV* (e.g. intrapersonal skills, interpersonal skills, adaptability, and stress management) (Bar-On & Parker, 2000), comparisons were made between the two groups of students with disabilities (i.e., ED and LD), and the group of students without a disability.

The purpose of this chapter is to share information related to the results obtained in this study. The chapter begins with a report of findings related to interscorer reliability. Next, findings related to the research question are reported. The chapter concludes with a summary of the significant findings and a summary of results as they relate to study predictions.

Interscorer Reliability

Interscorer reliability data were collected to measure scoring consistency of the *BarOn EQi:YV* protocols. The researcher scored all 66 protocols. The reliability checker scored 25% (i.e., 17) of randomly selected protocols from the total of 66. Each protocol included seven scores: the four subscales of intrapersonal, interpersonal, stress management, and adaptability, as well as the total EQ score, general mood, and positive impression scales. A total of seven scores were computed for each of the 17 protocols reviewed, for a total of 119 scores reviewed. The scores were compared and interscorer agreement was computed using the formula $\text{agreements} \div (\text{agreements} + \text{disagreements}) \times 100$. Interscorer agreement for protocol scoring was 97.5% (see Table 2).

Table 2

Interscorer Agreement

| Source | Researcher & Reliability Checker Data | Percent of Agreement |
|---------------------|--|-----------------------------|
| <i>BarON EQi:YV</i> | $116 \div (116 + 3)$ | $(116 \div 119) \times 100$ |
| | Interscorer Agreement | 97.5% |

Research Question and Related Findings

Is there a difference in emotional intelligence, as measured by the *BarOn EQi: YV* assessment, among adolescent students without an educational disability, adolescent students with emotional disturbances, and adolescent students with learning disabilities,

within the four subscales of intrapersonal, interpersonal, stress management, and adaptability, and composite EQ scores?

A 2 (Gender) by 3 (Group) by 4 (Subscale) mixed design with repeated measures on “subscale” was used to answer this research question. Tests of within-subjects, between-subjects, and interaction effects were conducted. An alpha level of .05 was used for all statistical tests.

Tests of Within-Subjects Effects

The results of the 2 X 3 X 4 factorial ANOVA revealed a significant main effect for Subscale $F(3,180) = 4.76, p = .003$. There were no significant interaction effects among the within and between-subjects variables (see Table 3). Thus, the experimental variables of gender (i.e., male, female) and group (i.e., LD, ED, students without disabilities) did not have a combined effect on emotional intelligence as measured using the *BarOn EQi: YV*.

Table 3

Test of Within-Subject Effects and interactions (ANOVA)

| Source | df | F | Effect Size | p-value |
|---------------------------|----|------|-------------|---------|
| Subscale | 3 | 4.76 | .073 | .003* |
| Subscale X Gender | 3 | 2.20 | .035 | .089 |
| Subscale X Group | 6 | 1.49 | .047 | .185 |
| Subscale X Gender X Group | 6 | 2.10 | .066 | .055 |

*Note ($p < .05$)

Pairwise comparisons revealed a significant difference between the overall mean scores for Subscale 4 (i.e., adaptability) and Subscale 1 (i.e., intrapersonal skills) ($p = .009$) (see Table 4). The overall mean score for Subscale 4 (i.e., adaptability) was significantly higher than the overall mean score for Subscale 1 (i.e., intrapersonal skills). Thus, based on the *BarOn EQi: YV* self-reported responses, the participants in this study perceived having adaptability skills that were stronger than their intrapersonal skills.

Table 4

Pairwise Comparisons (Sidak adjustment)

| Subscale X Subscale | Mean Difference | p-value |
|------------------------------------|-----------------|---------|
| Intrapersonal v. Interpersonal | -7.691 | .080 |
| Intrapersonal v. Stress Management | -1.660 | .989 |
| Intrapersonal v. Adaptability | -7.630 | .009* |
| Interpersonal v. Stress Management | 6.031 | .159 |
| Interpersonal v. Adaptability | .061 | 1.000 |
| Stress Management v. Adaptability | -5.970 | .130 |

*Note ($p < .05$)

Tests of Between-Subjects Effects

The between-subjects test revealed a significant Gender by Group interaction $F(2,60) = 3.56, p = .035$ (see Table 5). Thus, gender had a significant effect on scores by disability group.

Table 5

Test of Between Subjects Effects (ANOVA)

| Source | df | F | Effect Size | p-value |
|----------------|----|------|-------------|---------|
| Gender | 1 | 5.77 | .088 | .019* |
| Group | 2 | .26 | .009 | .772 |
| Gender X Group | 2 | 3.56 | 0.106 | .035* |

*Note ($p < .05$)

Simple Main Effects Analysis for Disability Group @ Gender

Simple main effects analysis, one-way ANOVA with Tukey's multiple comparisons test, was conducted to determine if significant differences existed among disability groups at each level of gender. The results revealed a significant difference between disability groups for males $F(2, 37) = 3.29, p = .049$ (see Table 6). Tukey's test revealed that males in the ED group scored significantly higher than males in the LD disability group ($p = .044$) (see Table 7). Thus, based on the *BarOn EQi: YV* self-reported responses, male participants with emotional disturbances perceived having stronger emotional intelligence than male participants with learning disabilities. There were no other significant differences between pairs of disability groups for males or females.

Table 6

Simple Main Effects (1-way ANOVA)

| Gender | df | F | p-value |
|--------|----|-------|---------|
| Male | 2 | 3.290 | .049* |
| Female | 2 | 1.441 | .256 |

*Note ($p < .05$)

Table 7

Tukey's Test (Males Only)

| Group | Mean Difference | p-value |
|---|-----------------|---------|
| Emotional Disturbances v. General Education | 5.31 | .796 |
| Emotional Disturbances v. Learning Disability | 14.09 | .044* |
| General Education v. Learning Disability | 8.78 | .483 |

*Note ($p < .05$)

Simple Main Effects for Gender @ Disability Group

Simple main effects analysis, using independent *t*-tests, was conducted to determine if significant differences existed between males and females in each disability group. The results revealed that males in the ED group scored significantly higher than females in the ED group ($p = .031$) (see Table 8).

Table 8

Simple Main Effects Using T-Tests

| Group | t | df | p-value (2-tailed) |
|---------------------------------|-------|----|--------------------|
| Emotional Disturbances Total EQ | 2.451 | 12 | .031* |
| General Education Total EQ | 1.744 | 17 | .099 |
| Learning Disability Total EQ | -.436 | 31 | .666 |

*Note ($p < .05$)

The *BarOn EQi:YV* has a mean score of 100, with a standard deviation of 15. It should be noted that all scores fell within the average range regardless of gender or disability group, with the exception of female students with emotional disturbances who fell below the mean with an average total EQ score of 84. Thus, most participants in this study scored within the average range of emotional intelligence. See Table 9 for descriptive statistics (i.e., means and standard deviations) for the between-subjects factors (i.e., gender and group).

Table 9

Descriptive Statistics for Total EQ Scores

| Gender | Group | Mean | Standard Deviation |
|--------|------------------------|--------|--------------------|
| Male | Emotional Disturbances | 108.91 | 16.208 |
| | General Education | 103.60 | 14.450 |
| | Learning Disabled | 94.82 | 14.911 |

Note. Table continues

| | | | |
|----------------|------------------------|--------|--------|
| Total | | 100.05 | 16.158 |
| Female | Emotional Disturbances | 84.00 | 12.124 |
| | General Education | 91.57 | 12.847 |
| | Learning Disabled | 97.09 | 12.300 |
| Total | | 92.93 | 12.777 |
| Total by Group | Emotional Disturbances | 103.57 | 18.363 |
| | General Education | 94.74 | 13.972 |
| | Learning Disabled | 95.58 | 13.942 |
| Total | | 97.03 | 15.133 |

Summary of Significant Findings

In summary, the factorial ANOVA revealed a significant within-subjects main effect for Subscale. Follow-up pairwise comparisons revealed that participants scored significantly higher on the Adaptability Subscale of the *BarOn EQi: YV* than the Intrapersonal Subscale of the *BarOn EQi: YV*.

The between-subjects test revealed a significant Gender by Group interaction. Follow-up analyses revealed that adolescent males with emotional disturbances displayed significantly higher emotional intelligence scores than adolescent males with learning disabilities. Simple main effects tests revealed that males with emotional disturbances displayed significantly higher emotional intelligence scores than females with emotional disturbances.

Results Related to Pre-Study Predictions

It was predicted that there would be differences in emotional intelligence scores of adolescents without a disability, adolescents with learning disabilities and adolescents with emotional disturbances within the four subscales, and the composite EQ score, as well as between gender. This prediction was not supported. There were no significant interaction effects among within and between-subjects variables. Gender and type of student (i.e., disability group) did not have a combined effect on emotional intelligence.

Related to type of student (i.e., group), it was predicted that the emotional intelligence scores of students with emotional disturbances would be lower overall than those with learning disabilities and students without a disability. It was also predicted that students with learning disabilities would have lower emotional intelligence scores overall and within the four subscales than students without a disability. These predictions were not supported. There were no significant differences based on group.

Based on gender, it was predicted that female students would score higher than males in all four subscales and overall. This prediction was not supported. There was no significant difference between the subscale scores of males and females between or within any disability group. This prediction was also inaccurate related to composite EQ scores. Furthermore, no significant differences were noted between genders in either the group of students with learning disabilities, or the group of students without a disability. There was a gender difference in the group of students with emotional disturbances. Male students with emotional disturbances scored significantly higher than female students with emotional disturbances.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The construct of emotional intelligence is relatively new (BarOn, 2006), but in spite of its infancy in the fields of psychology and education, researchers recognize it as being extremely important in terms of school and post-school success (Cartledge, 2005; Doty, 2001; Lopes et al., 2004; Salovey & Sluyter, 1997). Researchers and educators have devoted a significant amount of time to the establishment of an operational definition related to emotional intelligence (BarOn & Parker, 2000; Mayer, Salovey & Caruso, 2002; Romanelli, Cain, & Smith, 2006; Trinidad, Unger, Chou, & Johnson, 2005). Although a single definition has not yet been agreed upon, there appears to be general consensus related to the primary components of emotional intelligence. Included among these components are interpersonal skills, intrapersonal skills, stress management, and adaptability (BarOn, & Parker, 2000).

Previous Research Related to the Components of Emotional Intelligence

Within the body of literature related to the interpersonal component of emotional intelligence among adults, emphasis has been placed on investigating emotional intelligence as it relates to self-assessed relationship quality (Brackett, Warner, & Boscoe, 2005) and emotional intelligence as it relates to empathy, social skills, cooperation, marital satisfaction, and strength of interpersonal relations (Schutte et al.,

1998). Within the body of literature related to the interpersonal component of emotional intelligence among school-aged students, emphasis has been placed on studying peer social skills as they relate to understanding and predicting the thoughts and beliefs of others; and the relationship between social skills and peer relations, acceptance, and interpersonal skills.

Within the body of literature related to the intrapersonal component of emotional intelligence among adults emphasis has been placed on investigating emotional awareness and gender as well as studying the relationship between emotional intelligence and identification of feelings. Within the literature related to the intrapersonal component of emotional intelligence among school-aged students emphasis has been placed on investigating social anxiety, socio-metric ratings of peers, and peer relationship problems; and the relationship between intrapersonal peer pressure and drug use among adolescents.

Within the body of literature related to the adaptability component of emotional intelligence among adults, emphasis has been placed on studying emotional clarity and ability to cope with acute stressors as well as the impact of emotional intelligence and academic success in students transitioning from high school to college. Within the body of literature related to the adaptability component of emotional intelligence among school-aged students, emphasis has been placed on investigating the influence of placement (i.e., general education vs. gifted) and gender among students with giftedness as well as depressive outcomes attributed to an inability to self-regulate affect during problem situations.

Within the body of literature related to the stress management component of emotional intelligence among adults, emphasis has been placed on studying gender differences

related to various coping approaches. Within the body of literature related to the stress management component of emotional intelligence among school-aged students researchers have focused on adaptive and maladaptive behaviors as a way to cope with stress. The research indicated that children who were involved in positive activities, such as sports, and groups experienced higher self efficacy, experienced more positive life events, and experienced more positive academic outcomes than students who engaged in maladaptive patterns of behavior to cope with or alleviate stress.

This previous body of literature provides initial support related to the global importance of strong emotional intelligence in both children and adults. Unfortunately, the previous work related to emotional intelligence offers little with regard to emotional intelligence and adolescents with disabilities. Moreover, the previous research related to emotional intelligence was void of comparison studies that involved both students with and without disabilities. The current dissertation study was designed to address these voids in the literature.

Current Research Related to the Components of Emotional Intelligence

The specific purpose of the current dissertation study was to investigate the emotional profiles of adolescent students (ages 13-18 years old) with learning disabilities and the emotional profiles of students with emotional disturbances. Profiles related to intrapersonal skills, interpersonal skills, adaptability, stress management, and composite EQ scores were explored and compared to the same profiles among students without disabilities, using the *BarOn EQi:YV*. A total of 38 males (i.e., 11 with emotional disturbances, 22 with learning disabilities, and 5 without disabilities) and 28 females (i.e.,

3 with emotional disturbances, 11 with learning disabilities, and 14 without disabilities) participated in the study. The *BarOn EQi: YV* was individually administered to all 66 participants. Student responses to the questions on this instrument were analyzed to determine whether differences emerged based on disability and/or gender.

The current study adds to the limited research related to adolescents and emotional intelligence. Of particular importance, this study provides new knowledge related to emotional intelligence and students with disabilities in comparison to their peers without disabilities.

Provided in the remainder of this chapter is a thorough discussion of the findings obtained in this study. The discussion is framed around the research question and associated predictions. Next, conclusions drawn from these findings are shared. Finally, practical implications related to the study are described and recommendations for future research are provided.

Discussion of Findings

The question posed for this research was: Is there a difference in emotional intelligence, as measured by the *BarOn EQi: YV* assessment, among adolescent students without an educational disability, adolescent students with emotional disturbances, and adolescent students with learning disabilities, within the four subscales of intrapersonal, interpersonal, stress management, adaptability, and composite EQ scores?

Tests of Within-Subjects Effects

It was predicted that there would be differences in emotional intelligence scores of adolescents without a disability, adolescents with learning disabilities and adolescents

with emotional disturbances within the four subscales, and the composite EQ score, as well as between gender. Data analysis revealed that the experimental variables of gender (i.e., male, female) and group (i.e., LD, ED, students without disabilities) did not have a combined effect on the four subscales of emotional intelligence (i.e., intrapersonal, interpersonal, stress management, adaptability) nor was there a combined gender and group effect on the composite EQ score. There were no interaction effects among the within and between subject variables. This indicates the students with and without disabilities regardless of whether they were male or female were more similar than different related to the four emotional intelligence subscales.

Although there was no prediction made indicating that specific subscales would result in significantly higher scores for all participants than others, it is interesting to note that significant differences emerged between the overall mean scores for Subscale 4 (i.e., adaptability) and Subscale 1 (i.e., intrapersonal skills). The participants in this study perceived having adaptability skills that were stronger than their intrapersonal skills. Apparently these students were less confident related to their ability to recognize and understand their own emotions, than they were in their ability to manage and adapt to life events. Adolescence has been recognized as a difficult developmental period in terms of self-awareness and self-identity (Platt & Olson, 1997). Rice (1990) reported that most adolescents experience conflict, anxiety, and self-doubt as they try to figure out who they are. This may contribute to a plausible explanation of why the adolescents in this study reported weaker abilities in intrapersonal abilities. It is also possible that adolescents feel more confident in their abilities to adapt because they've had more experience related to adapting than recognizing and understanding their own emotions. This may be

particularly true for students with disabilities who have been exposed to years of adaptations in areas related to both their academic and social/emotional differences.

Tests of Between-Subjects Effects

Related to group, it was predicted that the emotional intelligence scores of students with emotional disturbances would be lower overall than those of students with learning disabilities and those of students without disabilities. It was also predicted that students with learning disabilities would have lower emotional intelligence scores overall and within the four subscales than students without disabilities. Data analysis revealed no significant differences based on group. Researchers and educators have noted that students with emotional disturbances have many behavioral difficulties and challenges that manifest themselves as difficulties within the social/emotional realm of development (Buckley & Saarni, 2006; Elias, 2004; Hallahan et al, 2005; Salend, 2008; Wagner & Cameto, 2004; Webber & Plotts, 2008). These emotional and behavioral issues frequently surface as the primary area of concern among students with emotional disturbances. Regarding students with learning disabilities, researchers and educators seem to emphasize academic deficits as being the primary area of concern, although social/emotional deficits are also noted as a concern for these students (Vaughn & Bos, 2009; Wiener, 2002). Because emotional/behavioral difficulties associated with emotional disturbances tend to be more stressful for interventionists than academic difficulties, it is easy to develop perceptions that students with emotional disturbances have more intense deficits and needs associated with emotional intelligence than students with learning disabilities. Based on the findings in this research, caution should be taken related to such assumptions. It is possible that both students with emotional disturbance

and students with learning disabilities have similar emotional needs and may respond similarly to interventions related to social/emotional development. Margalit's (1995) work related to a computer-assisted social skills program supports the premise that both students with behavior disorders and students with learning disabilities can benefit from the same type of social skill intervention. In Margalit's study, students as a whole group (regardless of disability) improved after the intervention. Specifically, they felt less lonely, felt more accepted by their peers, had higher levels of self-control, and displayed fewer internalizing and externalizing behavior difficulties.

Because students without disabilities in the current dissertation study performed similarly to the students with disabilities on the emotional intelligence subscales, it is logical to consider the provision of social/emotional support to all three types of students within similar educational contexts (e.g., general education classroom). Logistically, this makes such intervention easier to implement and subsequently more likely to occur. Although there was no between-subjects group effect, there was a significant Gender by Group interaction.

Simple main effects analysis between groups for males and females. Simple main effects analysis revealed a significant difference between disability groups for males. Further analysis using Tukey's test revealed that males with ED scored significantly higher than males with LD on the composite emotional intelligence score. This finding was somewhat surprising. Schumaker & Hazel (1984) indicated that students with emotional disturbances have severe difficulty with basic interpersonal skills such as appropriate communication, and understanding social cues. Other researchers (Kaplan & Cornell, 2005; Webber & Plotts, 2008) note that many students with ED have severe

behavioral problems (e.g., aggression, acting out). Due to these behavioral difficulties, students with ED are often placed in self-contained classroom environments. This type of placement lends itself to a more protective environment for students, where they may potentially face fewer stressors and less conflict in a school day. As a result, they may be able to control inappropriate behaviors more readily and therefore perceive they have high emotional intelligence.

Another plausible explanation for the finding that males with ED have higher emotional intelligence than males with LD may relate to the type of assessment (i.e., self-report) used in this study. It is possible that males with ED had greater difficulty than males with LD in terms of revealing emotional weaknesses because of their prior histories related to behavioral and emotional issues. An inherent limitation associated with self-report measures is the tendency for respondents to answer questions in a way that they believe is expected or acceptable instead of how they actually feel. It may be that the males with ED in this study had a stronger need to offer responses that were perceived to be appropriate responses instead of responses that were accurate reflections of self-abilities. It is also possible that males with ED perceive that their emotional abilities are stronger than they actually are. Based on the student investigator's prior knowledge of the males with ED who participated in this study, the latter explanation seems quite likely.

Simple main effects tests between males and females in each group. It was predicted that female students would score higher than males in all four subscales and in overall emotional intelligence. This prediction was not supported and in one group (i.e., students with emotional disturbance), the males scored significantly higher than the females. Several groups of researchers (Boden & Berenbaum, 2007; Brackett, Warner, & Bosco,

2005; Schwean et al., 2006) included the variable of gender within their respective investigations of emotional intelligence. In each of these previous studies, the findings revealed that females had higher emotional intelligence than males. Thus, the findings obtained in this study were unexpected.

One plausible explanation for the discrepancy between findings related to females in this study as compared to females in previous studies (Boden & Berenbaum, 2007; Brackett, Warner, & Bosco, 2005; Schwean et al., 2006) involves specific differences among the samples of females. For example, the females in the Boden and Berenbaum and Brackett et al. studies were adults without identified disabilities and the females in Schwean et al. study were elementary and middle school students who were identified as gifted. In contrast, the females in the current study were middle and high school students and half of the total sample had either learning or emotional disabilities.

It is possible that unique characteristics exist related to middle and high school females in general and/or that unique characteristics exist related to middle and high school females with disabilities in particular that influenced the outcomes in the current study. Adolescence has been noted as a developmental period in which changes in physical, cognitive, and social/personal development occur. These changes result in problems and challenges among many adolescents and seem to be exacerbated among adolescents with mild disabilities (Platt & Olson, 1997). Although limited research exists related to adolescent females with disabilities, it has been noted that adolescent females with emotional disorders are particularly vulnerable to suicide ideation and suicide attempts and that more females than males attempt suicide (Miller, 1994; National Institute of Mental Health, 1995). It has also been noted that adolescent females with disabilities are

at high risk for pregnancy because of poor basic skills (Platt & Olson). Finally, eating disorders, included in the *American Psychiatric Association Diagnostic and Statistical Manual* (1994) typically begin during the onset of adolescence and occur more frequently among females than males (Hoffman, 1994; Harvill, 1992). It is possible that one or more of these characteristics associated with adolescent females contributed to the finding that adolescent females with emotional disturbances who participated in this study scored lower in emotional intelligence than adolescent males with emotional disturbances. Specifically, it is plausible that a combination of the previously described female-related factors, coupled with emotional distress related to having emotional disturbances resulted in lower emotional intelligence scores for females than males.

It is also possible that females have a greater awareness of their emotional distress and/or a greater willingness to reveal their weaknesses than their male peers. The self-report procedures used in this study provided a forum for students, who were willing, to disclose their weaknesses in the area of emotional/social abilities. Similarly, it is possible that the males with emotional disturbances in this study had skewed perceptions related to their emotional/personal abilities based on other personal successes (e.g., sports) (Chung & Elias, 1996).

Descriptive Statistics Related to Between-Subjects Factors (Gender and Group)

All student overall emotional intelligence scores fell within the normal range regardless of gender or disability status with the exception of females with emotional disturbance. Females with emotional disturbance scored below the mean. It should be noted, however, that this group only consisted of three students. Thus, caution must be used in terms of

drawing any specific conclusions related to this group without further study that involves a larger sample size.

Although the research question for this study only required analysis related to the four subscales and the composite emotional intelligence scores, it is also possible to obtain two additional scores related to emotional intelligence: positive impression and general mood.

Positive impression and general mood are considered facilitators of emotional intelligence rather than a component of emotional intelligence. The positive impression scale relates to reporting negative attributes about self. A high score on this scale indicates lower reporting of negative attributes of self (Bar-On & Parker, 2000). Similar to the findings related to overall emotional intelligence scores, all participants in this study had positive impression scores that fell within the average range, with the exception of female students with emotional disturbances. The mean scores of these three female participants were considered to be below average. Again, due to the small number of females with ED, caution must be used when drawing conclusions related to this finding.

With regard to the general mood score, a high score is an indicator that the person responding believes he or she is able to function well both emotionally and socially in general (Bar-On & Parker, 2000). All participants' scores on the general mood scale fell within the average range for both age and gender.

Conclusions

Based on the results obtained in this study, several conclusions may be drawn. Included among these conclusions are the following;

1. Based on self-report using the *BarOn EQi:YV*, the combined effect of gender and type of disability (learning disabilities vs. emotional disturbances) does not result in predictable differentiations among emotional intelligence scores obtained on the subscales of intrapersonal, interpersonal, adaptability, stress, or the overall composite scale.
2. Based on self-report using the *BarOn EQi:YV*, adolescents, regardless of gender or disability status, report higher emotional intelligence related to adaptability than intrapersonal skills.
3. Based on self-report using the *BarOn EQi:YV*, adolescent males with emotional disturbances have higher emotional intelligence than females with emotional disturbances.
4. Based on self-report using the *BarOn EQi:YV*, adolescent males with emotional disturbances have higher emotional intelligence than adolescent males with learning disabilities.
5. Based on self-report using the *BarOn EQi:YV*, adolescent males with learning disabilities, emotional disturbances, and without disabilities as well as adolescent females with learning disabilities and without disabilities have average emotional intelligence.
6. Based on self-report using the *BarOn EQi:YV*, adolescent females with emotional disturbances have low emotional intelligence.

Practical Implications

The scores for average emotional intelligence based on the *BarOn EQi: YV* range from 90-109, low emotional intelligence ranges from 80-89, and high emotional intelligence

ranges from 110-119. The highest score achievable on this assessment is 130, and the lowest is 65 for both subscales and composite EQ scores.

Although males and females in this study with the exception of females with emotional disturbances had EQ scores that fell within the average range, consideration of instruction related to emotional intelligence may be appropriate. The mean scores of males with LD, females with ED, females without disabilities, and females with LD were all less than the mean of 100. Thus, additional support may be beneficial. Also, students, regardless of gender or disability group reported a perception that they were more able to adapt to change, than to identify and address their own emotions. This implies that all three groups may benefit from instruction on how to accurately and appropriately recognize and identify their own emotions. Because both students with and without disabilities indicated less competence related to intrapersonal skills, this instruction could take place within general education inclusive classroom settings. It may also be possible to integrate opportunities for growth related to these intrapersonal skills outside of structured instructional settings (e.g., extracurricular activities at school or within the community, family activities).

Because the emotional intelligence scores of females with emotional disturbances fell within the low range, it may be helpful to provide additional support to these three students. It may make sense to provide this more intensive support within contexts outside of the general education classroom (e.g., therapy sessions, support groups). School guidance counselors and/or school psychologists may be able to integrate needed support through one-on-one or group sessions.

Another practical implication that emerged from this research, is a need to carefully monitor emotional intelligence needs among males with emotional intelligence due to the apparent discrepancies associated with the males in this study and what is reported in the literature about the characteristics and needs of this population in addition to the behaviors these young men demonstrated in order to qualify for special education services. Boggiano and Barrett (1992) state that females with emotional disturbances exhibit higher rates of depression and other internalizing behaviors. While males exhibit higher rates of aggressive or externalizing behaviors (Kauffman, 2005). Based on the definition of emotional disturbances from the Nevada Administrative Code (NAC), (2009) these students often engage in inappropriate or negative behavior to gain attention. These behaviors may be more observable, and therefore notable in male students who often exhibit more of the aggressive and externalizing behaviors (Kauffman, 2005; Nevada Administrative Code). The findings from this study may indicate that the female students with emotional disturbances recognize their challenges, while their male peers do not. Overall female students with emotional disturbances reported the lowest scores implying that they are aware they do not have the basic skills to cope and adapt in social, academic and other situations. The scores of male students with emotional disturbances indicate that they perceive themselves as having high average emotional intelligence. Thus, it may be beneficial for teachers and/or other support personnel to intervene when incidents take place involving males with ED that indicate they have unrealistic or inaccurate perceptions related to various components of emotional intelligence.

Suggestions for Further Study

While the results of this research do indicate some differences between students, based on both gender, and disability group, further research is needed to obtain a more comprehensive picture of the emotional needs of students. First, the sample group included students ages 13 to 18, and could be expanded to include both older and younger students. The sample group was from two schools, one middle school and one high school in an urban city in the southwestern United States. A more broad population sample would be helpful to collect a more comprehensive data set, to compare scores across a more representative population.

Researchers to date have not focused on students with disabilities, and it may be beneficial to conduct further research on students with disabilities, considering also student IQ or cognitive ability. Comparing cognition with emotional intelligence may shed light onto the deficits of students with lower verbal, nonverbal, or composite IQ scores. Specifically, the relationship between verbal IQ scores, and reported emotional intelligence scores related to interpersonal skills should be investigated.

The assessment used in this research was a self report assessment. It may be beneficial in the future to administer an assessment to a parent of the student, or teachers of the student, to determine if there are significant differences in the perceived emotional intelligence of the student. Assessing students through their peers may also be beneficial in gaining a complete picture of a student's emotional abilities and the perceptions of others.

Research related to the effects of specific instruction related to emotional intelligence would also be beneficial in terms of instructional planning. Effects of the instruction on the four components of emotional intelligence would be particularly beneficial.

Additional research related to emotional intelligence and students with ED is needed. Specifically related to males with ED, the accuracy of perceptions related to emotional intelligence is needed. Related to females with ED, studies that include a larger sample size are needed to determine whether the findings within this study are representative of a larger group.

APPENDIX A

PARENT CONSENT FORM

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PARENT PERMISSION FORM

Department of Special Education

TITLE OF STUDY: Investigating the Emotional Intelligence of Typical Adolescents, Adolescents with Learning Disabilities and Adolescents Emotional Disturbances

INVESTIGATOR(S): Susan P. Miller, Ph.D. and Leota Tucker, M.Ed., Ed.S.

CONTACT PHONE NUMBER: 895-1108 (Dr. Miller)

Purpose of the Study

Your son/daughter is invited to participate in a research study. The purpose of this study is to examine the emotional intelligence scores of adolescent students (ages 13-18) with special education eligibilities, and adolescent students (ages 13-18) without special education eligibilities.

Participants

Your son/daughter is being asked to participate in the study because he/she is between the ages of 13 and 17 and is eligible for special education services or he/she is between the ages of 13 and 17 and is not eligible for special education services.

Procedures

If you volunteer to participate in this study, your son/daughter will be asked to answer 60 questions that are used to obtain an emotional intelligence score (i.e., a rating of your son/daughter's feelings about themselves and others). Specifically, a statement will be read to your child (for example: "I can talk easily about my feelings.") and he/she will be asked to identify whether the statement is very seldom true of me, seldom true of me, often true of me, or very often true of me. This question-answer session will last approximately 30 to 40 minutes. A school psychologist will read the questions to your son/daughter in a one-to-one setting. Because your son or daughter is required to attend once weekly direct instructional time, he/she will be administered this assessment before or after this instructional time. He/She will not miss instructional time to be administered this assessment.

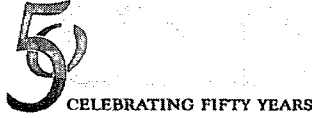
Benefits of Participation

There may be no direct benefits to your son/daughter as a participant in this study. However we hope that based on the results of the research, some information may be helpful to you, your son/daughter, and your son/daughter's teachers in the future educational planning and support for your son/daughter.

Risks of Participation

The risks of this study are minimal. Some students do experience minimal stress or discomfort when being asked questions by an adult. This risk will be minimized as much as possible. The school psychologist will ensure that your son or daughter understands that there are no right or wrong answers and that these questions will not effect their school grades in any way.

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PARENT PERMISSION FORM
 Department of Special Education

TITLE OF STUDY: Investigating the Emotional Intelligence of Typical Adolescents, Adolescents with Learning Disabilities and Adolescents Emotional Disturbances
INVESTIGATOR(S): Susan P. Miller, Ph.D. and Leota Tucker, M.Ed., Ed.S.
CONTACT PHONE NUMBER: 895-1108 (Dr. Miller)

Cost /Compensation

There will be no financial cost to your son/daughter to participate in this study. The study will take 30-40 minutes of his/her time. There will be no compensation.

Contact Information

If you have any questions or concerns about the study, you may contact Leota Tucker at 702-845-5236 or Susan P, Miller at 702-895-1108. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office for the Protection of Research Subjects at 702-895-2794.

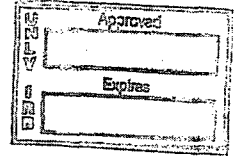
Voluntary Participation

Your son's/daughter's participation in this study is voluntary. He/she may refuse to participate in this study or in any part of this study. He/she may withdraw at any time without prejudice to your relations with the university. Withdrawal from the study will not impact relations with the Clark County School District. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for at least 3 years after completion of the study. After the storage time the information gathered will be destroyed and computer files erased.

RECEIVED



PARENT PERMISSION FORM

Department of Special Education

TITLE OF STUDY: Investigating the Emotional Intelligence of Typical Adolescents, Adolescents with Learning Disabilities and Adolescents Emotional Disturbances

INVESTIGATOR(S): Susan P. Miller, Ph.D. and Leota Tucker, M.Ed., Ed.S.

CONTACT PHONE NUMBER: 895-1108 (Dr. Miller)

Participant Consent:

I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

Parent Name (Please Print)

Signature of Parent

Date

Child's Name (Please Print)

Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.

APPENDIX B

STUDENT ASSENT FORM

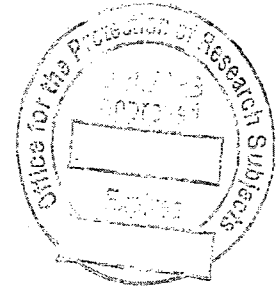


CELEBRATING FIFTY YEARS

Student Form

Assent to Participate in Research

Department of Special Education



TITLE OF STUDY: Investigating the Emotional Intelligence of Typical Adolescents, Adolescents with Learning Disabilities and Adolescents Emotional Disturbances

INVESTIGATOR(S): Susan P. Miller, Ph.D. and Leota Tucker, M.Ed., Ed.S.

CONTACT PHONE NUMBER: 895-1108 (Dr. Miller)

1. My name is Ms. Tucker. I am a student at the University of Nevada Las Vegas.
2. We are asking you to take part in a research study because we are trying to learn more about the emotional abilities of adolescents (ages 13 to 18 years old).
3. If you agree to be in this study, I will ask you some questions about yourself and you'll tell me the answers. You won't have to write anything down. This will take about 30 to 40 minutes of your time.
4. It is possible that you might get tired of answering the questions before we get done or you may feel uncomfortable thinking about yourself to answer the questions.
5. We hope that some of the information learned in this research will be helpful to you, your parents, and your teachers in planning your education.
6. Please talk this over with your parents before you decide whether or not to participate. We will also ask your parents to give their permission for you to take a part in this study. But even if your parents say "yes" you can still decide not to participate.
7. If you don't want to be in this study, you don't have to participate. Remember, being in this study is up to you and no one will be upset if you don't want to participate or even if you change your mind later and want to stop. Your grades will not be affected in any way by the research. There are no right or wrong answers.
8. You can ask any questions that you have about the study.

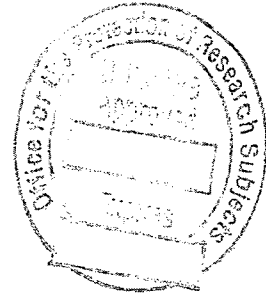


CELEBRATING FIFTY YEARS

Student Form

Assent to Participate in Research

Department of Special Education



TITLE OF STUDY: Investigating the Emotional Intelligence of Typical Adolescents, Adolescents with Learning Disabilities and Adolescents Emotional Disturbances

INVESTIGATOR(S): Susan P. Miller, Ph.D. and Leota Tucker, M.Ed., Ed.S.

CONTACT PHONE NUMBER: 895-1108 (Dr. Miller)

9. Signing your name at the bottom means that you agree to be in this study. You and your parents will be given a copy of this form after you have signed it.

Signature of Participant

Date

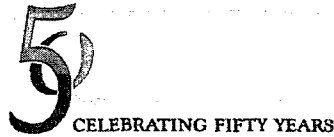
Participant Name (Please Print)

Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.

APPENDIX C

STUDENT CONSENT FORM

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STUDENT CONSENT FORM

Department of Special Education

TITLE OF STUDY: Investigating the Emotional Intelligence of Typical Adolescents, Adolescents with Learning Disabilities and Adolescents Emotional Disturbances

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Participants

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Procedures

If you volunteer to participate in this study, you will be asked to answer 60 questions that are used to obtain an emotional intelligence score (i.e., a rating of your feelings about yourself and others). Specifically, a statement will be read to your child (for example: "I can talk easily about my feelings.") and you will be asked to identify whether the statement is very seldom true of me, seldom true of me, often true of me, or very often true of me. This question-answer session will last approximately 30 to 40 minutes. A school psychologist will read the questions to you in a one-to-one setting. Because you are required to attend once weekly direct instructional time, you will be administered this assessment before or after this instructional time. You will not miss instructional time to be administered this assessment.

Benefits of Participation

There may be no direct benefits to you as a participant in this study. However we hope that based on the results of the research, some information may be helpful to you, your teachers in the future educational planning and support for you.

Risks of Participation

The risks of this study are minimal. Some students do experience minimal stress or discomfort when being asked questions by an adult. This risk will be minimized as much as possible. The school psychologist will ensure that you understands that there are no right or wrong answers and that these questions will not effect their school grades in any way.

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STUDENT CONSENT FORM

Department of Special Education

TITLE OF STUDY: Investigating the Emotional Intelligence of Typical Adolescents, Adolescents with Learning Disabilities and Adolescents Emotional Disturbances

INVESTIGATOR(S): Susan P. Miller, Ph.D. and Leota Tucker, M.Ed., Ed.S.

CONTACT PHONE NUMBER: 895-1108 (Dr. Miller)

Cost /Compensation

There will be no financial cost to you to participate in this study. The study will take 30-40 minutes of your time. There will be no compensation.

Contact Information

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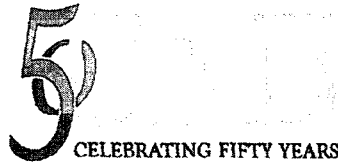
Voluntary Participation

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. Withdrawal from the study will not impact relations with the Clark County School District. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for at least 3 years after completion of the study. After the storage time the information gathered will be destroyed and computer files erased.

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STUDENT CONSENT FORM

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CONTACT PHONE NUMBER: 895-1108 (Dr. Miller)

Participant Consent:

I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

Participant's Name (Please Print)

Signature of Participant

Date

Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.

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