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THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND
ADOLESCENT DEVIANT BEHAVIOR

by

Jennifer R. Lance

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Family and Human Development

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ABSTRACT

The Relationship Between Emotional Intelligence and Adolescent Deviant Behavior

by

Jennifer R. Lance, Master of Science

Utah State University, 2003

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Department: Family and Human Development

This thesis summarizes a study conducted to explore the relationship between emotional intelligence and adolescent deviancy. The primary goal of this study was to investigate the relation between 1) overall emotional intelligence plus its subscales and overall normative deviant behavior, and 2) emotional intelligence subscales and subscales of a deviancy measure. Tapia's Emotional Intelligence Inventory (EII) and Vazsonyi's Normative Deviancy Scale (NDS) were used to measure the two variables of this study. Subjects included 152 high school students, aged 14-18, from a small city in Northern Utah. One hundred seventeen students came from a local high school comprising grades 10-12 and a junior high school comprising grade 9. The remaining 35 students attended an alternative high school, which comprised grades 9-12. Findings reveal that overall emotional intelligence was not correlated with overall deviant behavior. Two subscales of EII, handling relationships and self-control, were statistically significant in relation to the vandalism, general deviance, and assault subscales of the NDS. Results may be

contingent on the type of sample obtained and testing procedures. Further research is needed to validate these findings.

(107 pages)

ACKNOWLEDGMENTS

My deepest gratitude goes to my major advisor, Dr. Randall Jones. He graciously tolerated my constant questions and gave me extensive guidance. Many fond memories of early morning meetings talking mostly about boys and life's joys and worries were followed by thesis instruction. Randy was able to help me take a stroke-of-the-moment idea and direct me to an intriguing body of research; because of him an idea was conceptualized. Randy's generosity of time and energy were greatly appreciated.

I'd like to thank Dr. Kathy Piercy and Dr. Shelley Lindauer for their willingness to serve on my thesis committee. Their numerous suggestions brought my thesis from a bare conception to an organized paper. I appreciated their time in reading my thesis and offering their advice. Those who volunteered to help me collect data, Kelli Barker, Fay Belnap, Jana Darrington, and Dave Schramm, are also greatly thanked.

I appreciate the cooperation of the many teachers and principals who allotted me valuable class time to conduct my study. I am most thankful for the adolescents who participated in my research. Thank you so much!

Most of all, I would like to thank my family. Grandma and Grandpa endured a very grumpy graduate student from time to time. My dad, mom, and siblings supported me with prayers and love. They are my most important support. Sarah Curtis deserves some thanks for maintaining my sanity with her happy visits. Without the inspiration and support of a kind Heavenly Father, I would never have gotten this far. I owe it all to him.

Jennifer R. Lance

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CHAPTER I

INTRODUCTION

Emotional Intelligence

Intelligence is the capacity to exercise higher mental functions in order to comprehend the world around us. Social research often seeks to understand intelligence by focusing on the cognitive aspect. One aspect of intelligence that is frequently ignored is the emotional components underlying intellectual knowledge (Mayer, 2001). A definition found in the Funk and Wagnall's dictionary expands the common definition of intelligence to include emotional components such as changing behavior in response to a situation. Intelligence has been defined as "the capacity to meet situations, especially if new or unseen, by a rapid and effective adjustment of behavior" (Marckwardt, 1967, p. 660). Recently, researchers have begun to include the emotional factor of intelligence into social research; this factor is commonly referred to as emotional intelligence (EI). Some believe that "...emotional intelligence may be the best predictor of success in life, redefining what it means to be smart" (TIME, 1995, Cover). Claims such as this merit extensive research because when this statement was made, only a few years had passed since the conceptualization of emotional intelligence. Because emotional intelligence is a relatively new area of inquiry, few studies have been conducted correlating it to other concepts. This thesis will focus on emotional intelligence and seek to understand how it relates to adolescent deviancy.

Emotional Intelligence in Adolescent Delinquents

Adolescents in juvenile delinquent systems often demonstrate a low capability of emotional management, motivation, compassion, and poor social skills (Moriarty, Stough, Tidmarsh, Eger, & Dennison, 2001). All of these characteristics are encompassed in the concept of emotional intelligence (EI). According to Salovey and Mayer (1990), emotional intelligence “involves the ability to perceive emotions, to access and generate emotions to assist thought, to understand emotions and emotional knowledge, and to regulate emotions reflectively to promote emotional and intellectual growth” (p. 187). Emotional intelligence, then, is the ability to monitor one’s own emotions, and use that information to guide one’s actions and thoughts. This definition establishes a connection between emotion and intelligence because “it combines the ideas that (a) emotion makes thinking more intelligent and that (b) one thinks intelligently about emotions” (Mayer & Salovey, 1997, p. 5). Hence, an individual who is skilled in these abilities is considered to be an emotionally competent and well-adjusted person; whereas, an individual who is deficient in these abilities may be a person that is socially and emotionally unadjusted (Mayer & Salovey). The implications for understanding human psychological and cognitive development are of apparent importance.

Emotional Intelligence and Deviancy

Recent research attempting to illustrate the implications of emotional intelligence on human cognitive and social abilities has captured the attention of many researchers. Many juvenile offenders commit crimes with astonishing nonchalance, devoid of

emotional display (Moriarty et al., 2001). Investigations searching for connections between juvenile recidivism rates and emotional intelligence may reveal facilitative information for predicting adolescents at-risk for criminal behavior or mischief. Pointedly, only a few research projects have specifically linked emotional intelligence with some type of deviant juvenile activity (e.g., the studies by Moriarty et al. and Trinidad & Johnson, 2002, as reviewed in chapter II).

The Problem of Deviancy

The prevalence of juveniles involved in crime and deviant behavior poses a serious concern to society. Males and females younger than age 18 comprise around 19% of the American population (Census Bureau, 2000). Statistics released through the Office of Juvenile Justice and Delinquency Prevention (OJJDP) revealed that juveniles committed 27% of reported serious violent crimes (1999). Although juvenile crime rates in 1997 were the lowest in that decade (2.8 million arrests per year of youth up to the age of 18), crime is still 21% above the 1980's average (OJJDP, 1999). Of the 2.8 million arrests, 32% were under age 15, and 26% of those arrests were female. The actual number of serious offenses often is unreported, unsolved, or the perpetrators unidentified, which masks the true crime rate. Of the reported 2.8 million arrests in 1997, 422,900 were alcohol and drug-related, 123,400 were for violent crimes, and 838,000 were associated with property damage. Juvenile offenders are among the fastest growing groups of offenders, increasing 24% between 1989 and 1990, while in contrast the number of adult offenders increased only 3.8% over the same time period (FBI, 1998).

This study is motivated by a potential relationship between the emotional intelligence framework and deviancy. The purpose of this study was to advance the base of knowledge related to emotional intelligence and juvenile deviant behavior. Emotional intelligence was measured using the Emotional Intelligence Inventory (EII) and then related to the Normative Deviance Scale (NDS), which was used to measure the extent of deviant behavior.

Research Questions

As mentioned, no research formally has been conducted to link juvenile deviancy and emotional intelligence. The main purpose of this study was to better understand how emotional intelligence and juvenile deviancy are related. Juveniles who score poorly on the Emotional Intelligence Inventory may possess emotional, social, and cognitive disabilities; those who score highly may possess competent emotional and social skills. The following questions and comparisons address these issues:

1. Is there a relationship between emotional intelligence and juvenile deviancy as measured by the Emotional Intelligence Inventory and Normative Deviance Scale?

Specifically,

- a. Is there a relation between the emotional intelligence aspect of perception and appraisal and juvenile deviancy?
- b. Is there a relation between the emotional intelligence aspect of emotional facilitation of thinking and juvenile deviancy?

- c. Is there a relation between the emotional intelligence aspect of understanding emotion and juvenile deviancy?
 - d. Is there a relation between the emotional intelligence aspect of management of emotion and juvenile deviancy?
2. In addition, is emotional intelligence related to specific aspects of deviancy (e.g., vandalism, alcohol, drugs, school misconduct, general deviance, theft, and assault)?

Definition of Terms

Delinquent: a juvenile's behavior that is judged as anti-social or in violation of the law or one who has committed an act that would be a crime if committed by an adult.

Deviant (and deviancy): a juvenile's behavior that markedly departs from social norms in a socially or morally unacceptable way; does not need to be legally apprehended (more reflective of status offenses).

Emotional intelligence: a type of emotional information processing that refers to an ability to recognize emotional meanings and their relationship, and to reason and problem-solve on the basis of them; the ability to perceive, identify, understand, and manage emotion-related feelings (Mayer, 2001).

Index offenses: illegal acts a child or juvenile commits that would be criminal regardless of age (i.e., homicide, rape, burglary, aggravated assault, motor vehicle theft, larceny, etc.).

Juvenile: a child who is between 10 to 18 years of age.

Serious juvenile delinquent: a juvenile who is repeatedly incarcerated or engaged in repeated singular offenses involving life-threatening actions (index offenses such as assault, rape, or murder).

Status offenses: illegal acts a child or juvenile commits that would not be criminal if committed by an adult (i.e., truancy, curfew, runaway, ungovernable, possession of tobacco, and alcohol consumption).

CHAPTER II

REVIEW OF LITERATURE

Juvenile Delinquency Review

In this literature review, first delinquency and deviancy will be defined followed by current trends as reported by the 1997 National Longitudinal Survey of Youth. Secondly, the literature dealing with correlates of delinquency will be reviewed in two areas: individual, and peer, family, and social systems.

Definition of Delinquent Behavior

Acts committed by persons aged 10 to 18 that violate the law are considered delinquent behavior. Within this definition there is a wide range of seriousness, ranging from less serious status offenses (truancy, running away, possession of alcohol) to more serious index offenses (murder, rape, arson, robbery, and aggravated assault) (Bourdin & Henggeler, 1990). Many adolescents commit numerous status offenses but are never caught or officially charged, even though their behavior certainly is deviant. On the other hand, when an adolescent commits a serious crime such as child rape, and is subsequently charged with the crime, he/she is automatically labeled a delinquent with just one offense. Hence, arrest history is not an accurate measure of delinquent behavior.

Current Deviancy Trends

A 1997 study published by the National Longitudinal Survey of Youth (NLSY97) provides a startling depiction of deviant (not conforming to social and moral standards) and delinquent (fails to conform to laws) behaviors of United States youth ages 12-16. A

representative sample of 9,000 youth between the ages of 12 and 16 was interviewed during 1996 about involvement in various deviant and delinquent behaviors. Of those surveyed, 21% reported having sex in the last 12 months. Six percent of the sexually active females became pregnant; teen pregnancy impacts educational achievement because on average teen mothers drop out of school to care and provide for their infants (NLSY, 1997). Low levels of education and being a single parent are correlated with poverty because the mother has few resources to draw from (Waite, 1995). Thus, dropout rates, poverty status, and welfare programs are highly affected by teen pregnancy. The child born to teen parents is more likely to be of low birth weight, have poor school performance, to be abused, neglected, and is at greater risk for delinquent or deviant behavior than a child born to adult parents (NLSY).

With regard to drug and alcohol use among males and females ages 12 to 16, the NLSY (1997) reported that 21% smoked cigarettes within the past week, 39% experimented (tried at least once) with alcohol, 21% drank alcohol in the last 30 days, 21% experimented with marijuana, and 9% reported using marijuana in the last 30 days. These trends reflect a disturbing trend of regular drug and alcohol use among our nation's youth (OJJDP, 1999). More than 50% of high-school youth have experimented with marijuana, alcohol, and tobacco by the time they graduate (OJJDP).

The NLSY also reported that 11% of these youths ran away from home more than once. One in ten youths reported carrying a handgun to school within the past school year. Those who purposely destroyed property amounted to 28% of the surveyed youth, and 8% stole something worth over \$50.00.

Correlates of Delinquency

Recent empirical evidence shows that individual, peer, and family systems influence adolescent delinquent activity. Emmy Werner (1989) brought attention to various "risk factors" associated with high-risk children in her follow-up study of 545 members of the 1955 birth cohort on Kauai. A litany of studies followed, revealing that the probability of a child experiencing negative outcomes, such as delinquency, is greater if risk factors, such as prenatal stress, poverty, low parental education, parental divorce and/or separation, abuse, mental illness, and drug and alcohol abuse are present (Carr & Vandiver, 2001; Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikström, 2002; Werner, 1989). Four or more risk factors accumulated before the age of two can be predictive of later behavior problems, psychopathology, learning disabilities, and delinquency (Carr & Vandiver).

Werner (1989) identified three types of protective (or conversely risk) factors that impact children: (1) individual factors such as temperament, IQ, communication skills, and disposition; (2) affectional ties with another person who can provide emotional support; and (3) external support systems. This review will focus on individual factors and combine affectional ties and support systems under the topic of family and societal characteristics. Risk factors combined with individual and family characteristics contribute to delinquent behavior.

Individual characteristics

Individual characteristics such as neuropsychological and personality characteristics have been linked to delinquency (Allen, et al., 2002; Ge, Donnellan, &

Wenk, 2001; Moffitt, 1993; Thomas & Chess, 1984; White, Bates, & Buyske, 2001; Vermeiren, Schwab-Stone, Ruchkin, Clippele, & Deboutte, 2002). Infants and children who are described as fussy, irritable, distractible, sensitive to upset or threat, poor attention to stimuli, and low adaptability to new situations are said to have difficult temperaments (Garbarino, 1999; Moffitt, 1993; Thomas & Chess, 1984; White et al., 2001). In this section, individual factors that potentially influence delinquency will be discussed.

Neuropsychological factors. Disruption of brain development in utero—neonatal deprivation, difficult births, maternal substance abuse, and genetic influences—can be a source of neuropsychological dysfunctions, such as antisocial behavior (Moffitt, 1993; White et al., 2001). Moffitt hypothesized that deficits in verbal skills and executive functions are associated with delinquency. She connected poor communication skills and failure to use verbal mediation in order to provide self-control with the inability to postpone gratification, one major element of anti-social behavior (Moffitt). Several studies have investigated the links between low IQ and delinquent behavior. There is ample evidence that many delinquents have low IQ scores, particularly in the verbal portions (Ge et al., 2001; Moffitt; Vermeiren et al., 2002).

Impairments of the *executive cognitive functions* promote aggressive and undercontrolled behavior (Haaken, Giancola, & Pihl, 1998; Moffitt, 1993; Seguin, Pihl, Harden, Tremblay, & Boulterice, 1995; Vermeiren et al., 2002). Executive cognitive functions manage such operations as attentional control, abstract reasoning, working memory, goal selection, and strategic planning; reasonably, executive impairments may mediate neurological disorders such as ADD/ADHD or incapacity to delay gratification

(Hoaken et al., 1998; Moffitt, 1993; Seguin et al.; Vermeiren et al.). These deficits affect one's ability to solve social problems, disrupt interpersonal relations due to an impaired ability to generate alternative solutions to problems, inhibit aggression, and to respond appropriately to environmental cues (Loeber & Hay, 1997; White et al., 2001).

Neuropsychological dysfunctions impede many facets of development; however, it is not known how they directly affect later delinquency. There is a relationship between neurological impairments and deviance/ delinquency, but the strength of that relationship is not clear (White et al.).

Personality characteristics. Particular personality characteristics and factors also appear to be linked to delinquent behavior. Chung, Hill, Hawkins, Gilchrist, and Nagin (2002) conducted a longitudinal study that followed 808 adolescents (ages 14-18) from the year 1985 to current from the Seattle area. This study sought to identify childhood predictors of various offense trajectories (degree and onset of offending behavior). Their results showed that the characteristics of impulsivity and/or disinhibition were linked to delinquent behavior (Chung et al.). The inability to control one's impulsive behavior is often accompanied by thoughtlessness, disruptive behavior, and tactlessness, compounding the consequences of behavior. Thus, the ability to control one's own behavior appears to be correlated with deviant behavior.

A similar study examined the relationship between personality and crime. Caspi et al. (1994) used multiple and independent measures of personality and delinquency to assess the relationship on an entire birth cohort in New Zealand and an ethnically diverse group of boys from Pittsburgh. The authors concluded that delinquency is characterized by negative emotionality and weak self-constraints (impulsivity); also, that depressive

personality and negative emotional reactions (impulsivity, aggression, etc.) are closely related to antisocial acts (Caspi et al.).

Chung et al. (2002) also concluded that extreme aggression, temper tantrums, irritability, dishonesty, and bullying behavior are other characteristics most delinquents exhibit at an early age, which supports Werner's (1989) research where she showed that similar traits lead to deviancy. Moffitt's 1993 theoretical paper postulated about an antisocial developmental taxonomy. Moffitt (1993) specifically linked aggression with persistent anti-social behavior in young boys; those who were the most aggressive often were the ones involved in offending behavior. Her later studies supported her proposed framework that particular neuropsychological and personality characteristics do indeed promote adolescent antisocial behavior (Moffitt, Caspi, Dickson, Silva, & Stanton, 1996; Moffitt, Lyman, & Silva, 1994; White et al., 2001).

Age of first offense. A particular strength of the National Longitudinal Study of Youth (NLSY) is its ability to assess age trends of deviant and delinquent behavior. Recent research using the NLSY study shows that the onset age of delinquent behavior and first-time offense arrests are correlated with higher risks of reoffending in adolescence and adulthood (Cottle, Lee, & Heilbrun, 2001; Landsheer & Hart, 1999; Mason & Windle, 2001). Persistent deviant behavior appears early on, around age 12, and those who offend during early adolescence most often reoffend later in their adolescent years (OJJDP, 1999).

Moffitt's (1993) theoretical paper also related involvement in antisocial behavior with the age of first offense. She proposed that people who engage in antisocial behavior between the ages of 5 and 11 often persist in their antisocial involvement throughout their

“life-course” (Moffitt). Her basic theory is that the earlier one offends, the more delinquent s/he becomes later on and the more persistent their deviant behavior; some of these behaviors extend until middle adulthood (Moffitt). In 2002, The Office of Juvenile Justice and Delinquency Prevention (OJJDP) released a report that stated that higher frequencies of younger children (ages 10-13) are in the juvenile justice system as of 1998 than in the previous ten years. In actuality, the number of juveniles 13 and younger ordered to detention by the courts rose 16% between 1989 and 1998 (OJJDP, 2001). This indicates that adolescents younger than age 13 are more frequently involved in deviant behavior than a decade ago, which according to Moffitt’s theory results in persistent life-course anti-social behavior. There are other explanations for persistent anti-social behaviors that revolve around familial and societal factors, but these are not elaborated upon in her theoretical foundation.

White et al. (2001) conducted research based on Moffitt’s theoretical basis. They used data collected from the Rutgers Health and Human Development Project that followed up on 698 males and 682 females; however, they chose to study only the 698 males. Each participant was administered self-report questionnaires dealing with deviancy, risk factors, three proximal measures of neuropsychological functioning, verbal ability, two personality measures, and three measures of family adversity (White et al.). Their conclusions provided support for the stability of antisocial behavior across time and the life course. On the other hand, they were not able to distinguish early-onset versus late-onset delinquency using the risk factors that Moffitt suggested as being predictors of deviant behavior (White et al.). What they were able to confirm was that those who were

delinquent from an early age were later clearly differentiated from those who did not offend using the risk factors as predictor variables (White et al.).

Peer, and family and societal environments

Peers, self-esteem, and delinquency. Low self-esteem emerges as an additional weighty factor that is related to delinquent acts because of friendships with deviant peers (Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). In the late 1970s, Kaplan conducted a large research project in Houston, TX involving 7,618 seventh graders at three different time intervals. Attrition was a major setback; however, the results set the stage for subsequent self-esteem and deviancy research. His team endeavored to discover the roots of deviant behavior in terms of self-esteem. He theorized that there is a "self-esteem need" to avoid negative self-evaluation, and seek the positive aspects of the self. An adolescent with poor self-esteem is motivated to seek positive regard elsewhere (Kaplan, 1975, 1980); problems arise when the adolescent seeks reinforcement from peers who are rejected and not part of the social norm. Associations with his/her deviant friends supposedly restore the adolescent's poor self-regard (Kaplan, 1975). His theory was validated through numerous studies, which affirm that delinquency is positively associated with growth in self-esteem among adolescent boys who initially reported having low self-regard (Kaplan, 1975).

Based on Kaplan's research, Jessor et al. (1995) and Mason (2001) found similar results. They theorized that delinquent behavior is a result of adolescents, with low self-esteem, creating associations with deviant peers and conforming to deviant group's standards in order to find positive self-regard (Jessor et al.; Kaplan, 1980; Mason, 2001;

Mason & Windle, 2001). In other words, delinquency is an adaptive response to low self-esteem, often resulting in rejection from the societal norm reference groups. Jessor's longitudinal study conducted with seventh through ninth graders in an urban mid-western school district investigated relations between positive protective factors and negative risk factors. Their six-variable model included low self-esteem, low expectation for success, general sense of hopelessness about life, friends who model deviant behavior, stronger orientation towards friends rather than parents, and poor school achievement (Jessor et al.). In Jessor's risk variable model, low self-esteem is included as the second greatest risk factor influencing later deviant and delinquent behavior, preceded only by friendships with deviant peers (Jessor et al.). Their research strongly linked low self-esteem to associations with deviant peers. They found that low self-esteem and associations with deviant friends were the strongest predictors of delinquency, which supports Kaplan's research on self-esteem and deviancy.

Parental Style. The family system also has a powerful impact on the development of adolescent delinquent behavior. It has been suggested that lax parental supervision (behavioral standards not defined or enforced) most likely leads to delinquency (Wilson, 1980). For example, Patterson, Bank, and Capaldi (1991) used the Oregon Youth Study data, a diverse sample of school age children (ages 6-12) and adolescents (ages 13-17), to study the relationship between delinquency and family interactions. They discovered that parents with disrupted parenting practices (inconsistency, low supervision, etc.) and lack of family management skills often have adolescents who engage in dominating antisocial behavior, delinquency included (Patterson, Crosby, & Vuchinich, 1991). Learning coercive interpersonal styles often results in the rejection of the adolescent by the family

and by nondelinquent peers; subsequently, the adolescent seeks acceptance from deviant peers, increasing the likelihood of becoming involved in delinquency (Cashwell & Vacc, 1996; Matherne & Thomas, 2001; Patterson, Bank, & Capaldi).

Matherne and Thomas (2001) conducted a study that included 127 ninth graders from a rural high school to assess the relationship between family environment and delinquency. The Family Adaptability and Cohesion Evaluation Scale (FACES III) and a self-report delinquency scale were used to measure the variables. One of the basic models for their study included Olson, Russell, and Sprenkle's Circumplex Model (1979). This model is based on the assumption that the difference between functional and dysfunctional families is determined by family cohesion and adaptability. Cohesion refers to the level of attachment within the family and includes four levels ranging from low cohesion to high cohesion; specifically listed from lowest to highest they are: disengaged, separated, connected, and enmeshed. Adaptability refers to the ability that the family has of changing their power structure, roles, and relationships in order to adjust to life's stressors. Adaptability includes four levels ranging from low to high adaptation; these levels include rigid, structured, flexible, and chaotic adaptation (Matherne & Thomas).

The Matherne and Thomas study (2001) found that two specific parenting scheme appear to foster delinquent behavior: authoritarian (enmeshed parental/child cohesion and rigid adaptability) and chaotic (separated cohesion and chaotic adaptability). Indirectly, parents with functional and dysfunctional family practices affect the type of peers their adolescent chooses. The peer group can provide a social context, as well as attitudes, motivation, opportunities, rationalizations and support for delinquent behavior (Kaplan, 1975; Matherne & Thomas; Patterson, Bank, & Capaldi, 1991). In nontraditional

families (single-parent, divorced, remarried, never married, etc.) there was a significant relationship between level of cohesiveness and delinquent behavior. Nontraditional families often function under different circumstances that do not foster adaptability and cohesion. For example, nontraditional families often lack the time, energy, and financial resources that could foster togetherness and communication (Matherne & Thomas); however these results should take into consideration that many delinquents come from traditional homes as well. The important point is that lack of time, energy, and financial resources in a family unit are related to the prevalence of deviant behavior (Matherne & Thomas).

Family Communication. Clark and Shields (1997) conducted a study of 339 high school students from Ohio to better understand how family communication is implicated in delinquent behavior. Their study used Hirshi's (1969) theoretical notion that communication is important for understanding delinquency. Open and problem types of communication were studied in relation to delinquency. Clark and Shields found that open family communication and parenting skills act as a buffer against delinquency. Results indicated that communication style (open or problem) is related to delinquent behavior (Clark & Shields). Family communication patterns reflect parenting styles and parent-child relationships (Cernkovich & Giodano, 1987; Clark & Shields; Hirschi). Communication within a family is imperative when seeking to understand interpersonal relationships and the dynamics of family interactions (Klein, Forehand, Armistead, & Long, 1997); it appears that delinquency and communication levels are related. Mason (2001) hypothesized that "good" family communication would result in lower delinquency rates, and his results support this contention. Adolescents in families with

positive and successful communication were about 40% less likely to engage in delinquent acts than were families with less successful communication (Klein et al.). If the family has difficulties communicating, adapting, and unifying, perhaps the family environment is not conducive for optimal social development (Klein et al.).

Family and Social Environment. Other environmental factors surrounding the family also influence the development of delinquent behavior. For example, Carr and Vandiver (2001) found that structure, rules, family support, guidance, and few siblings foster low levels of delinquent behavior. Their study included 76 youth offenders between the ages of 11 and 17 who had committed repeated status offenses and/or index offenses. An adverse rearing environment was referred to as family adversity and included such factors as inconsistent rules, poor parental structure, poverty, and poor familial support and guidance (Carr & Vandiver). With regard to family environment, the Carr and Vandiver study supported the notion that an adverse rearing environment often facilitates delinquent behavior. Other foundational studies defined family adversity in particular with poverty, which is highly correlated with high-risk behavior, often leading to anti-social behavior (Moffitt & Silva, 1988; Werner, 1989). It also refers to parental alcohol and drug abuse, providing a negative role model for children to imitate (Brook, Whiteman, Balka, & Cohen, 1997; Werner). Other factors include parental absence, large families, birth order, high parental discord, low parental education, and poor quality of parent-child interaction (Moffitt, 1993; Rosen, 1985; Rosenbaum, 1989; Werner). Bursik and Grasmick (1993) studied serious delinquent behavior, which is commonly found in low SES neighborhoods. Using data from the Pittsburgh Youth Study they determined that 70% of 19-year-olds and 41% of the 13-year-olds that were studied in the low SES

neighborhoods were serious delinquents (Bursik & Grasmick, 1993); family conditions impacted the adolescent and their behavior.

Conclusions about Delinquency

In a thorough review, Cottle et al. (2001) conducted a meta-analysis to identify the risk factors that best predict delinquency. Twenty-three published studies were included that represented 15,265 juveniles. Each study had to meet the criteria that the participants of the study were between the ages of 12 to 21 who had one prior arrest and subsequent reoffending record (Cottle et al.). The strongest individual predictors were age of first offense, low verbal scale IQ scores, conduct disorders, and low self-esteem. Strong family and peer predictors included low SES environment, association with delinquent peers, abuse history, single-parent homes, and family instability (Cottle et al.). This recent meta-analysis succinctly reviews and identifies the risk factors affecting juvenile delinquency, which coincide with the base of research reviewed in this paper.

Intelligence and Emotions: Explanations and Applications

The individual and familial risk factors reviewed seem to be encompassed in one area of research only recently being investigated. Many adolescents are at high risk for delinquency; they face perilous challenges such as depression, violence, abuse, dropout, teen pregnancy, and substance abuse (Garbarino, 1999). Nearly 10 years ago, rising juvenile crime alerted our nation of the need to develop new prevention strategies. Emotional and social proficiency stood out as primary factors that could act as protectors against deviant behavior, especially in children (OJJDP, 1999). Our nation's schools were

used in the prevention process to help children and adolescents become proficient with emotional and social skills (Ciarrochi, Forgas, & Mayer, 2001). Many programs were established to teach skills such as awareness and management of feelings, impulse control, empathy, and cooperation (Goleman, 1997). The study of how to teach emotional literacy initiated the investigation of a possible new dimension of intelligence, often referred to as emotional intelligence. The following section will follow the development of emotional intelligence research, define its components, and relate the correlates of delinquency research with those of emotional intelligence.

The History of Emotional Intelligence Research

First period. John D. Mayer, a key researcher and the founder of modern emotional intelligence theory (EI), divides the development of emotional intelligence research into five time periods. During the first period, which began in the early 1900s and extended to 1969, the concept of intelligence was established and measurement tools were developed. Intelligence was seen as an *ability* to abstractly reason and act on those reasonings; verbal intelligence was a major focus (Mayer, 2001). Intelligence was also seen as comprising “the mental abilities necessary for adaptation to, as well as shaping and selection of, any environmental context” (Sternberg, 1997, p. 1030). In the case of intelligence, the ability or capacity to abstractly reason is stressed in order to differentiate it from personality theories. Scientists, such as Darwin, separately established the modern study of emotions. Emotions purportedly have biological roots that evolve over time and species (Mayer, 2001), and were seen as impulses to act (Goleman, 1995). The two fields were distinct and separate during this period.

Second period. The second period spanned from 1970 to 1989. During this time, intelligence and emotions were amalgamated into the new research domain of “cognition and affect,” which encompassed the associations between thought and emotions (Mayer, 2001). Artificial intelligence and nonverbal communication were examined in connection with cognition and affect (Mayer). Emotional giftedness was rarely investigated except in the case of Piechowski (1986) and Dabrowski (1964), who were the precursors of this movement. Their construct closely resembles emotional intelligence; emotional giftedness was said to involve an awareness of one’s feelings, the ability to differentiate feelings and to develop deep relationships, empathy, justice, and moral sensitivity. Shortly thereafter, the main figure of this movement made his contribution; Howard Gardner developed a theory of multiple intelligences. He argued that there are many different ways to be intelligent (Pfeiffer, 2001). Gardner’s model includes seven primary intelligences: verbal, mathematical-logical, spatial, kinesthetic, musical, interpersonal, and intrapersonal (Gardner, 1983). The intrapersonal intelligence that is included in his model set the stage for the concept of emotional intelligence as a type of formal intelligence. Gardner viewed intrapersonal intelligence as the ability to perceive and symbolize emotions (Gardner). Intrapersonal intelligence was also referred to as “social intelligence,” and included such components as social skills, empathic proficiency, prosocial attitudes, social anxiety, and emotionality and sensitivity (Marlowe, 1986). The term emotional intelligence was sporadically used in reference to an intertwining of social knowledge and access to those social and emotional feelings.

Third period. Emotional intelligence was brought to public awareness when Salovey and Mayer (1990) published a series of articles on the subject. The authors had

three goals for future emotional intelligence research: a) outline the emotional intelligence theory, b) crystallize the framework using the vast foundation of research, especially social intelligence research, and c) develop measures to test their theory (Mayer, DiPaulo, & Salovey, 1990; Salovey & Mayer). In their 1993 article, Mayer and Salovey argued that “EI was a basic, overlooked intelligence that held the promise to meet a rigorous definition of intelligence” (pp. 433-434). This era is viewed as the differentiation period, segregating emotional intelligence as a new field of inquiry.

Fourth Period. The fourth period (1994-1997) marked the popularization of the field by the bestseller *Emotional Intelligence*, written by science journalist Daniel Goleman (1995). Unsubstantiated claims were made such as EI being the “best predictor of success in life” and its similarity to personality and character research (Goleman, 1995). In other words, the premise of his thesis is that the ability to balance and manage one’s emotions determines how intelligently he or she will act and one’s ultimate success in life. He proposed that the way one manages and balances their emotions governs how intelligently one acts and how successful he/she will be (Pfeiffer, 2001). Goleman focused emotional intelligence on motivational and social relationship factors instead of one’s ability to understand and process emotional information (Ciarrochi et al., 2001). These claims fell outside the framework founded by Salovey and Mayer (1990), although the popular attention demanded valid and reliable research from the infant field. The loosely defined construct remained undefined, and numerous measures cropped up, flooding society with measuring tools based on little research.

Fifth Period. The final period (1998-present) comprises the refinement of theoretical models and measures. The inconsistencies created by popularization are

currently being investigated. The first peer-reviewed articles appear to be leading to the institutionalization and validation of EI as a new form of intelligence (Mayer, 2001). A review of EI development is important because its newness will impact the findings and premises of this research thesis. The measures and tools used by those promoting EI are not completely validated, standardized, or firmly established, but new research that adheres to the established scientific framework could be used to substantiate the theory as proposed by Mayer.

Components of Emotional Intelligence

What exactly does the emotional intelligence construct entail? Unfortunately, the scientific and popularized definitions differ a great deal, which causes much confusion. The scientific portion will be mainly considered because of the nature of this project; the popularized version that focuses on a personality version of emotional intelligence will also be mentioned briefly in this section. Also, the parental influences on emotional intelligence will be discussed because they are an integral component influencing how emotionally intelligent one can be.

In this study, emotional intelligence is viewed as a traditional intelligence wherein one's cognitive structures abstractly reasons regarding emotions, while the emotional system enhances cognitive capabilities (Mayer, Perkins, Caruso, & Salovey, 2001). The definition provided below has a two-part form. The first deals with cognitive processing of emotional information, and the second with the skills involved in emotional and cognitive processing. Therefore, emotional intelligence is

the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively

regulate emotions so as to promote emotional and intellectual growth. (Mayer & Salovey, 1997, p. 5)

In other words, EI specifies the extent to which cognitive processes are informed by emotions and the extent that emotions are managed, administered, and controlled through cognitive functions. In 1999 this definition was expanded and clarified as follows:

Emotional intelligence refers to an ability to recognize the meanings of emotions and their relationships and to reason and problem-solve on the basis of them. Emotional intelligence is involved in the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of those emotions, and manage them. (Mayer, Caruso, & Salovey, 1999, p. 267)

Taking a closer look at emotional intelligence there are four major aspects (see Figure 1):

Aspect	Ability*
1. Emotional perception	Identify emotions in faces, music, design, and pictures
2. Emotional facilitation of thought	Control emotional information to enhance thinking
3. Understanding emotion	Comprehension of emotional information regarding relationships, shifting of one emotion to another, and verbal information about emotions
4. Management of emotion	Manage emotions—and relationships—for personal and interpersonal growth

*Based on the work of Mayer et al., 1990; Mayer & Salovey, 1993, 1995, 1997; Salovey & Mayer, 1990; Salovey et al., 1993, 1995

Figure 1 Four-aspect emotional intelligence model

the appraisal and expression of emotion, the use of emotion to enhance cognitive processes and decision making, knowledge about emotions, and management of emotions (Mayer & Salovey, 1993, 1995, 1997; Mayer et al., 1990; Salovey & Mayer, 1994; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). The second aspect of emotional intelligence is distinct from the other three because it uniquely uses emotion to enhance reasoning, whereas the other three involve reasoning about emotions (Mayer, Salovey, Caruso, & Sitarenios, 2001).

Emotional management. The aspects of emotional intelligence shown in Figure 1 are in hierarchical order, with emotional management placed at the top of the hierarchy. To manage one's emotions effectively, personal growth and relations should be enhanced (Mayer, Salovey, et al., 2001). The highest level on the hierarchy, management of emotion, creates a border between the general personality system and the cognitive system, even though it is less cognitive than understanding emotion. It acts as a balancer among motivational, emotional, and cognitive factors (Mayer, Salovey, et al.).

Emotional management first entails the ability to be open to positive and negative emotions because only when a person attends to their emotions will they learn about them. Parents and culture are crucial because they are the mediums that teach emotional expression (e.g., what emotions are appropriate to display in particular contexts). The child learns how and when to appropriately engage or disengage an emotion, depending on the situation and information he/she receives, in order to reflect and discuss what is causing the emotion. Often reflective regulation is referred to as the meta-regulation of mood (George, 2000; Mayer, Salovey, et al., 2001).

Emotional management also includes the ability to monitor one's emotions in the context of self and others, and also to monitor other's emotions. Being able to elicit emotions in other people is an important interpersonal skill, especially being able to excite, enthuse, or instill caution (George, 2000). In order to evaluate mood, one must attend to how clear, typical, influential, reasonable, and acceptable the emotion(s) is.

Finally, emotional management entails the ability to moderate negative emotions and enhance positive ones without exaggerating the importance of the emotion(s). This aspect of emotional management is the least understood because few measures have been developed to assess its dynamics and dispositional qualities. To successfully manage emotions, people must integrate the other three aspects of emotional intelligence.

Employing emotional knowledge. The ability to understand and analyze emotion and then put that knowledge into use is a great asset; it is also more abstract and most allied with cognition, thus making it the most highly correlated with IQ (Mayer, Salovey, et al., 2001). In essence, Mayer, Perkins, et al. (2001) define this ability as comprehending emotional information concerning relationships, transitions from one emotion to another, and linguistic information about emotions. According to George (2000), emotional knowledge is the ability to identify the causes of emotions, the consequences of emotions, and how they evolve over time. However, Mayer and Salovey (1997) specifically break down this aspect into four major abilities.

First, emotional knowledge is the ability to label one's emotions after which one begins to observe relationships between the labels. Usually, parents assist children in labeling emotions and helping them to connect emotions to situations that occur (Mayer

& Salovey, 1997), facilitating the child's ability to note similarities and differences between related emotions (e.g., happy and ecstatic).

Second, an individual begins to notice that emotions accompany particular circumstances, such as sadness when someone you know passes away. Emotions are then linked to circumstance through experience. As children develop, their emotional knowledge begins to develop, increasing throughout the lifetime. Stanford and Binet, the founders of the Stanford-Binet intelligence scales, as reviewed in Fancher (1985) stipulated that in order to qualify as an intelligence, the phenomenon must have a developmental criterion; i.e., intelligence must develop with experience and age. Emotional intelligence meets this developmental criterion, especially through the second ability of employing emotional knowledge, which is learning emotional knowledge (Mayer, Salovey, et al., 2001).

Third, as a child develops (adds to the developmental criterion), the complexities of emotions become clear. This is different from noticing emotions that accompany circumstances because in this ability, understanding how emotion is linked to circumstance helps the child begin to understand the complexities of emotion. For example, a child may begin to realize that s/he can feel annoyance towards a parent yet love them at the same time. Emotional combinations are acknowledged and incorporated into an individual's working emotional body of knowledge, as they are experienced (Mayer, Perkins, et al., 2001).

The fourth part of employing emotional knowledge is the ability to recognize emotional patterns and chains. A good example of this is being able to identify the progression of minor annoyance to anger, after which may come acceleration into rage.

According to Mayer and Salovey (1997), recognizing emotional patterns and chains occurs when an individual reasons about emotional sequences. Being able to recognize likely transitions (e.g., annoyance to rage) is central to emotional intelligence because it is highly involved in building interpersonal relationships (George, 2000).

Using emotions to enhance cognitive processes. This aspect of emotional intelligence is distinctive because it is the only one that uses emotions as an enhancer of cognitive processes. Emotions serve as an alerting system (Mayer & Salovey, 1997). Abilities directly linked to facilitation of thought are accurately relating basic sensations to emotions (e.g., blue is sad, hot is anger) and the use of emotions to influence changes in one's moods (Mayer et al., 1999; Salovey & Mayer, 1990).

In George's (2001) review of the four aspects of emotional intelligence, she clearly makes four points about this aspect that clarify its importance in assisting cognitive processes. First, emotions help direct and signal an individual's focus of attention to important information. For example, when an infant is uncomfortable s/he cries, or when it is happy it laughs. As the child grows, emotions begin to shape and improve thinking by directing attention to significant changes around the child, such as changes in the parent-child relationship (Mayer & Salovey, 1997).

Second, one can generate emotions on demand in order to better understand the emotion being experienced. Another way of explaining this is that one can anticipate how he/she would feel in a certain situation such as moving to a new school, new job, etc. The ability to anticipate such emotions assists someone in making decisions. Mayer and Salovey (1997) coined the anticipation of emotional feelings "the emotional theater of the

mind" (p. 13); the more accurate the emotional theater operates, the better it will help an individual choose properly and wisely.

Third, emotions can be used to enhance specific cognitive processes. For example, positive moods have been shown to enhance creativity and inductive reasoning, while negative moods focus one's attention on details and careful cognitive processing (Isen, 1987; Salovey, Hsee, & Mayer, 1993; Sinclair & Mark, 1992). Thus, emotional mood swings facilitate deliberation of alternative viewpoints (Mayer & Salovey, 1997).

Closely related is the fourth aspect, in which shifts in emotions promote flexible planning and broader perspectives. For example, an individual in a neutral mood tends to be easygoing and expect both positive and negative events, while those in positive or negative moods have heightened perceptions of alternative opportunities. Different emotional states encourage a broad range of consideration of the same set of alternatives, if in a positive mood, one may choose differently than if in a negative mood. The last two aspects of emotional facilitation of thought contribute heavily to complex thoughts.

The perception of emotion. The ability to accurately assess emotion pertaining to the self and others aids judgment formation and decision-making. Research conducted by Emmons and Colby (1995) identified two types of ambivalent emotional expression. Some people want to be emotionally expressive but agonize about doing it and subsequently fail to do so; others express their emotions after which they regret doing so. Interestingly, both types of ambivalence are linked to anxiety, depression, less social support, psychiatric disorders, and low overall well-being (Emmons & Colby). The inability to express emotion as explained could keep an individual from developing sustaining and positive interpersonal relationships.

Widely studied, now in reference to emotional intelligence, is alexithymia, the inability to express emotions using language, and the inability to identify one's own emotions (Parker, Taylor, & Bagby, 2000). A recent study conducted by Parker et al. assessed 734 adult men and women who resided in several towns and cities in central Ontario. They used the Toronto alexithymia scale (TAS-20; Bagby, Parker, & Taylor, 1994; Taylor, Bagby, & Parker, 1997) and the BarOn Emotional Quotient Inventory (EQ-I; Bar-On, 1997) to examine the relationship between emotional intelligence and alexithymia. They found that there is a strong inverse relationship between the two, their reported correlation coefficient was $r = -0.72$ (Parker et al.); meaning, that as emotional intelligence as a whole decreases, alexithymic symptoms increase. This finding suggests that high emotional intelligence, especially with regard to appraisal and expression of emotions, may be a protective factor for mental and physical health.

Another aspect of emotional perception and expression relates to an individual's ability to correctly read facial expressions. Facial expression identification is supposedly governed by the neural limbic system. Inhibitions of this system could lead to the inability to identify basic emotions such as fear, sadness, happiness, and anger (Stevens, Charman, & Blair, 2001). Stevens et al. studied 37 males between the ages of 9 and 15 who were attending a school for children with emotional and behavioral difficulties. They found that children who had severe emotional and behavioral problems also were unable to correctly identify basic emotions (fear, sadness, happiness, and anger) by reading facial expressions. In conjunction with the ability to perceive emotions in faces is the ability to accurately identify emotions in music and design (Mayer et al., 1999) using language, sound, appearance, and behavior (Mayer & Salovey, 1997). In relation to

intelligence and personality, this branch of emotional intelligence inputs information to intelligence (Mayer, Salovey, et al., 2001). Included in emotional perception is the ability to discriminate between accurate and inaccurate expressions of emotion (Mayer & Salovey, 1997). The perception of emotion is the most basic aspect of emotional intelligence upon which the other three aspects are built; deficits in this domain would be the most detrimental to emotional intelligence.

The personality theory of emotional intelligence. Personality factors play a role in the study of emotional intelligence. Reuven Bar-On (2000) introduced a mixed definition of emotional intelligence using personality characteristics. His noncognitive approach included five factors: (1) intrapersonal qualities such as self-actualization, assertiveness, independence, and emotional self-awareness; (2) interpersonal qualities such as social responsibility, interpersonal relationship, and empathy; (3) stress management skills such as impulse control and stress tolerance; (4) adaptability, which includes problem solving, flexibility, and reality testing; and (5) general mood, which consists of happiness and optimism.

Bar-On (2001) defined emotional intelligence as “a multifactorial array of interrelated emotional, personal, and social abilities that help us cope with daily demands” (p. 87). Personality and temperament factors affect how well and what level one will achieve emotional intelligence (Bar-on, 2001). Some of the factors listed under his factorial structure are: self-regard, assertiveness, stress tolerance, impulse control, flexibility, problem-solving, empathy, interpersonal relationship, optimism, self-actualization, happiness, independence, and social responsibility (Bar-On, 2000). His definition does not deal with the requirements of a formal intelligence; rather, they are

determinants and facilitators of emotionally and socially intelligent behavior (Bar-On, 2001). He seems to look at the outcomes of emotional intelligence rather than the cognitive processes of it.

From Bar-On's (2001) theoretical stance, he hypothesizes that high emotional intelligence is comparable to achieving self-actualization, which is an intra-personal trait, quality, or state-of-being. Self-actualization refers to the achievement of one's goals, potentials, capacities, and even talents (Crain, 2000). Abraham Maslow's theory suggests that an individual can only achieve self-actualization after his/her basic needs, such as survival, safety, social, and personal needs have been met (Bar-on, 2001; Maslow, 1950). Similarly, the delinquency research, as reviewed in the *family environment* section above, showed that adolescents who do not have their basic needs met are at high-risk for delinquent behavior (Werner, 1986). According to Bar-On, a delinquent adolescent whose basic needs are not met will not achieve self-actualization or even high levels of emotional intelligence until those needs are filled (Bar-On, 2001).

The book written by Daniel Goleman (1995) also incorporated a broad, noncognitive approach to emotional intelligence, employing more of a personality (traits) and motivation theory view of emotional self-awareness. His explanation of emotional intelligence included five areas: (1) self-awareness attributes such as emotional awareness and self-confidence; (2) self-regulation traits such as self-control, trustworthiness, and innovation; (3) motivation, which includes achievement drive, initiative, and optimism; (4) empathy attributes such as understanding others and political awareness; and (5) social skills, involving attributes such as influence, conflict management, and team capabilities. Both Bar-On and Goleman's approaches to

emotional intelligence do not include cognitive abilities, such as reasoning in regard to emotions. Rather, the ideas central to intelligence, especially the capability to reason with cognitive facets (e.g., emotional, verbal, spatial, etc.) of the thought process, are missing from the models that employ a mixed approach. Instead, personality is the focus of being emotionally proficient. Goleman (1995) believes that adolescents with difficult temperaments also do not achieve high emotional intelligence because their interactions with other individuals are strained and their interpersonal skills (influenced by temperament and personality) inhibit social development. These beliefs have not yet been adequately researched.

However, the ideas of the mixed models should not be dismissed because they do play an important role in the study of emotional competency as an aspect of intelligence. Bar-on (2000) has suggested that high scores using his EQ-i assessment tool, predicts one's overall ability to cope effectively with daily pressures and demands and one's social competence. Many of the factors in his EQ-i were studied in the context of delinquency research. Specifically, the research reviewed in the delinquency section suggested that low self-esteem, low empathy levels, low stress tolerance (such as anxiety-provoking situations and mood control), impulse control, and problem solving characteristics appear to foster deviant and delinquent behavior; similar to what Bar-on suggests may occur when one scores low in emotional competency.

Parental influences on emotional intelligence. Martinez-Pons (1998-99) sought to understand how parents influence the development of emotional intelligence, task orientation, social functioning, and depression levels of their children. He surveyed 109 junior high students (aged 11-15) from two large public schools; the sample was

ethnically and socioeconomically diverse. The measures used in this study were the Parental Inductive Behavior of Emotional Intelligence (PIBEI), Trait Meta-Mood Scale (TMMS), Goal Inventory, Hare Self-Esteem Scale, and the Reynolds Adolescent Depression Scale. The TMMS was designed to assess relatively stable individual differences in dealing with emotions (Salovey et al., 1995). Using this measure posed an important limitation to the study because the measure is limited to assessing self-oriented aspects of emotional intelligence (Martinez-Pons, 1998-99); it did not measure emotional intelligence in relation to other-oriented behavior.

Each adolescent rated four aspects of parental behavior: parental modeling, encouragement, facilitation, and rewarding behavior of their child's emotional intelligence. First, the parental modeling aspect assumes that parents who engage in emotionally intelligent behaviors will have children who imitate their parent's well-developed repertoire (Martinez-Pons, 1998-99). Second, the encouragement aspect assumes that parents who encourage their children to act in emotionally intelligent ways will be more likely to incorporate that way of thinking into their daily repertoire (Martinez-Pons). Third, facilitation assumes that parents will encourage the child to talk his/her way through difficult emotional situations, assisting him/her to analyze his/her own and other's behavior (Martinez-Pons). Lastly, rewarded emotional intelligence includes the idea that a child who is rewarded for emotionally intelligent behavior will repeat that behavior more often. All four of these parental behaviors were thought to affect emotional intelligence, which subsequently affects task orientation, social functioning, and depression.

The results of the Martinez-Pons (1998-99) study showed that parental inductive behavior is a significant predictor in regards to the child's level of emotional intelligence. Emotional intelligence in turn was shown to be an important predictor of the child's task mastery, social functioning, and depression level (Martinez-Pons). More often than not, parent and child emotional intelligence scores are reflective of each other, depending on the child's age at the time of testing.

Summary of emotional intelligence. Emotional intelligence is built upon the idea that emotions have information concerning relationships; when a relationship with someone (or something) changes, so do the emotions toward that person (or object) (Mayer, Salovey, et al., 2001). Emotional intelligence is the ability to perceive emotions, facilitate thought with emotions, understand, and manage emotions. Balance among these four aspects seems to be key. An individual's emotional intelligence should predict his/her emotional achievements (Mayer & Salovey, 1997), but because of the unequal influences on each life, everyone learns about emotions differently. High emotional intelligence is seen in people who are in touch with their emotions and manage them well, and who can read other's emotions and deal effectively with them (Valliant & Davis, 2000).

Common Correlates of Emotional Intelligence and Juvenile Deviancy

The research investigating the link between emotional intelligence and juvenile delinquency is sparse because of the newness of emotional intelligence. Current debates concerning emotional intelligence address methodological and theoretical concerns. However, some researchers have begun to examine emotional intelligence in the context

of other areas, such as delinquency. Mayer, Salovey, et al. (2001) stated that "higher EI may predict reduced levels of problem behavior such as drug use and interpersonal violence" (p. 240). A few researchers have studied some basic correlates of delinquency with regard to emotional intelligence scores. In this section, a short review of some of the studies relating delinquency with emotional intelligence will be discussed. First, self-esteem will be reviewed, followed by reviews on aggression, resiliency, and drug and tobacco use.

Mehrabian (2000) explored emotional success in regard to emotional intelligence. His sample consisted of 107 men and 195 women, with ages ranging from 17 to 46, from a local university. Each participant was assessed on 32 individual-different dimensions of life-success, using a general intelligence test (Wonderlic Personnel Test) and the Trait Pleasure-Displeasure Temperament Scale (PAD) (Mehrabian). Emotional success was defined as the ability to make use of, and benefit from one's emotionally intellectual advantages in life (Mehrabian). Possessing a relaxed temperament, consisting of pleasant, dominant, and unarousable traits, was found to be the strongest and most consistent predictor of success and being emotionally intelligent (Mehrabian). Self-esteem and a relaxed temperament were highly correlated with emotional intelligence and highly predictive of emotional success. Mehrabian's study was based on Ciarrochi, Chan, and Caputi's (2000) theoretical paper that critically evaluated emotional intelligence as a construct of intelligence. They hypothesized that people with low emotional intelligence are less skilled at managing their emotions because of low self-esteem (Ciarrochi et al., 2000). Mehrabian's findings supported the hypothesis that self-esteem is related to emotional intelligence.

Also, in the delinquency section of this review (pp. 14-15), several researchers proposed that adolescents with low self-esteem tend to associate with deviant peers in order to fulfill their need for acceptance (e.g., Jessor et al., 1995). Mehrabian (2000) proposed that high self-esteem facilitates emotional intelligence. Hence, adolescents who have low self-esteem may subsequently have low emotional intelligence, and therefore may be more prone to engage in delinquent behavior.

Moriarty et al. (2001) conducted a study of emotional intelligence deficits in male adolescent sex offenders. Their sample consisted of 15 male adolescent sex offenders who were in the Male Adolescent Programme for Positive Sexuality program, and 49 male non-offenders from a local secondary school, aged 14 to 17, all of whom were from Australia. The measures used to assess level of emotional intelligence were: Trait Meta-Mood Scale (TMMS), Davis Interpersonal Reactivity Index, Inventory of Personal Problems, and the Revised Toronto Alexithymia Scale (TAS-20). These researchers found that males who sexually-offended scored significantly higher on the Davis Interpersonal Reactivity Index (measuring aggression) and they also scored lower on the TAS-20 measure of the capacity to identify and distinguish feelings from bodily sensations of emotional arousal. This finding is consistent with past research that indicates sex offenders are generally socially isolated and have a lack of empathy for their victims, enhanced by high aggression levels (Fehrenbach, Smith, Monastersky, & Deisher, 1986; Goleman, 1996; Marshall, 1989; Valliant & Bergeron, 1997). High impulsivity combined with aggressiveness and difficulty identifying feelings contributes to the motivation to offend. With regard to emotional intelligence, half of the offenders

scored low and the other half scored high, which could be explained by the offender and type of crime committed, ranging from gross indecency to rape.

Valliant and Davis (2000) used a longitudinal sample of 456 economically and educationally disadvantaged Boston males (born between 1925 and 1932) who were originally studied between 1940 and 1945. The sample was activated again for this study to investigate emotional intelligence and midlife resilience of low-IQ males. The attrition rate reduced the sample to 349; these were the participants in this study. Seventy-three low IQ boys' were tested for emotional intelligence and resiliency factors and compared to the comparison group of average and high IQ males. They found that high IQ often predicts school success and later life success (Valliant & Davis). They also found that resiliency in low IQ boys is mediated by emotional intelligence. However, the researchers greatly emphasized that IQ is not destiny, but that resiliency can help raise or lower intelligence scores. Resiliency in this sense was defined as being able to persist in the face of frustrations, ability to delay gratification, keep distress from hijacking one's ability to think, and to be able to have hope and empathy (Goleman, 1995).

A study conducted by Ciarrochi, Deane, and Anderson (2002) investigated the links between emotional intelligence, stress, and depression. Three hundred and two university students from Australia participated in this study. Ciarrochi et al. used an Objective Emotion Perception measure (to identify whether emotions were present in a story or not), the self-report questionnaire by Schutte et al. (1998), and five other measures of stress, life experiences, depression, suicide, and hopelessness. Their findings showed that people who are depressed often have lower social support and lower sensitivity to stress. Ironically, they found that people who are emotionally perceptive are

more impacted by stress than those who are not; often these perceptive people are also the ones who are more depressed. Emotionally intelligent individuals may actually be more prone to the adverse affects caused by stress. This finding was surprising, but the researchers explained their results as being affected by the correlational design and the measure used to assess emotional intelligence (Ciarrochi et al.).

Trinidad and Johnson (2002) hypothesized that adolescents with low emotional intelligence turn to drug and alcohol abuse because of their inability to cope and manage their behavior. They surveyed 232 adolescents aged 11 to 17 from several schools in Southern California using the Multifactor Emotional Intelligence Scale (MEIS) and a tobacco and alcohol use measure. The MEIS was created by Mayer, Salovey, and Caruso (1997) and is considered to be the most reliable emotional intelligence test because it actually tests EI according to the four components as reviewed above (p. 26). The test is administered like many of the traditional IQ tests (not self-reported). When these two measures were correlated, the results showed a significant but small negative association, of $r = -0.19$, between emotional intelligence and drug and alcohol use. Trinidad and Johnson (2002) speculated that the ability to manage emotions may reduce the effects of peer pressure because the adolescent could detect unwanted peer pressure and refuse tobacco and alcohol use. Not being able to manage emotions from peer pressure may increase the likelihood of smoking cigarettes or drinking alcohol. Also, it appears from their findings that lower EI and tobacco and alcohol use are related to stress-coping strategies. The finding of a significant negative correlation between emotional intelligence and general tobacco and drug abuse could confirm that low EI may contribute to deviant drug use (Trinidad & Johnson).

Connecting Emotional Intelligence with Deviancy

The delinquency research is very broad and difficult to summarize, but the critical points in relation to the development of delinquent behavior are apparent. Specifically, delinquency encompasses any illegal or antisocial behavior enacted mainly by adolescents. Various factors contribute to delinquent behavior, especially individual, peer, and family contextual factors. Major individual factors that impact the onset of delinquent behavior are personality characteristics, poor communication skills, verbal deficits, poor executive cognitive functions, depression, and self-esteem (Jessor et al., 1995; Moffitt, 1993; Werner, 1989; White et al., 2001). Friendships with deviant peers in order to strengthen self-esteem appear to be highly related to adolescent deviancy (Jessor et al., 1995). Significant family and societal factors include poor familial communication, at-risk family situations (poverty, parental drug abuse, low education, and low SES neighborhoods) and poor parenting skills (Moffitt, 1993; Patterson et al., 1991; Werner, 1989). All of the features encompassed in individual, peer, and familial areas appear to affect delinquency.

Emotional intelligence is a new concept that focuses on the ability to recognize emotional meanings and their relationship, and to reason about them; it is involved in the capacity to perceive, facilitate, understand, and manage one's emotions (Mayer, 1997). Current research is endeavoring to establish emotional intelligence as an intelligence using emotion. Until now, little research has been done connecting emotional intelligence with other areas, such as juvenile deviance.

A few researchers have attempted to connect emotional intelligence to delinquent behavior. Moriarty et al. (2001) linked aggression and impulsivity to lower levels of

empathy, which is often found in juvenile sex offenders. Empathy is an important part of emotional intelligence; it is the ability to understand emotions regarding relationships and the ability to understand others emotions (Moriarty et al.). Ciarrochi et al. (2002) linked depression with lower social support, which may be related to lower emotional intelligence abilities. Lastly, adolescent drug and tobacco use was linked to low emotional intelligence, specifically, the inability to cope and manage one's behavior (Trinidad & Johnson, 2002).

The purpose of this thesis is to investigate the relation between emotional intelligence scores and juvenile delinquency. As reviewed above, the theory founding emotional intelligence suggests that individuals who score high in emotional intelligence possesses more efficient emotional and social skills and are well-adjusted within their societal context.

CHAPTER III

METHOD

Subjects

One hundred and fifty-two adolescents, aged 14 to 18, located in the Cache County school district completed two measures, the Emotional Intelligence Inventory (EII) and the Normative Deviancy Scale (NDS). The data for this study were derived from this sample. The vice-superintendent over Cache County School District chose the high school and junior high school to be included in the sample. He also approved the use of the alternative high school. The sample of high school students in the alternative and local high schools was a sample of convenience. It was not a random sample; therefore, the sample is not representative of the general population.

Three classrooms from Sky View High School, one from North Cache Junior High School and the entire student body at Cache High were invited to participate in the study. After preliminary data collection, a sample size of 123 was deemed insufficient. Of the students at Cache High, 63 refused to participate, did not return parental consent forms, or were absent the day of data collection. In order to ensure a more representative sample, six resource classes from Sky View were used as backup for Cache High because the researcher felt that more resource students engage in deviant behavior than their peers. A total of 29 resource students were included in the sample, for a total sample of 152. The classes included were five English classes and one math class. The classroom size from each school was: 23 from North Cache, 26 at Sky View (History), 23 at Sky

View (Geography), 16 at Sky View (Psychology), 29 resource students at Sky View, and a total of 35 from Cache High.

Demographic characteristics of the 152 adolescents are as follows, 80 were male, (52.6%), 69 were female (45.4%), and two participants did not disclose their sex. Grade wise, 23 students were in the 9th grade (15.1%), 35 were in the 10th grade (23%), 55 were in the 11th grade (36.2%), and 38 were in the 12th grade (25%), with one student not reporting his/her grade. Age ranged from 14 to 18, with 16 fourteen-year-olds, 34 fifteen-year-olds, 49 sixteen-year-olds, 42 seventeen-year-olds, and 11 eighteen-and-older. There were 132 Anglo-Americans, 11 Hispanic/Latinos, 1 Asian, 3 Native Americans, 4 "other," and one unreported. Parental marital status was also measured. Married parents accounted for 104 (68.4%), and 16 (10.5) for divorced, 3 (2%) for separated, 14 (9.2%) for remarried, 10 (6.6) for single, and 3 (2%) for never married; two did not report marital status. Also, each student was asked if s/he had ever been incarcerated in a juvenile corrections facility 24 (15.8%) answered yes, 111 (73%) responded no, and 17 (11.2%) did not answer, most likely because of the personal nature of the question.

Measures

Description of measures

Three different measures were used in this study: a demographics survey, the EII, and NDS. The revised 41-item Emotional Intelligence Inventory (EII) was used to measure EI in the participants. There are four subscales measuring particular aspects of emotional intelligence; the total score reflects overall emotional intelligence. Each

participant was asked to provide demographic information, and then fill out the EII questionnaire using a 5-point Likert scale with responses such as 1: Never like me, 2: Occasionally like me, 3: Sometimes like me, 4: Frequently like me, and 5: Always like me. The EII contains questions about the subject's feelings towards societal, personal, and emotional issues. A total emotional intelligence score is obtained by summing the Likert scale ratings (Tapia, 2001). The four subscale means are calculated by averaging the scores of each item included in the subscale.

The Normative Deviancy Scale (NDS) was used to measure the level of deviancy in the adolescents surveyed. Similar to the EII, the NDS uses a 5-point Likert-type scale: never, 1 time, 2-3 times, 4-6 times, and more than 6 times. Seven subscales make up the NDS; each subscale is summed and averaged for a deviance score in that area. A total deviance score was culminated by summing the seven NDS subscales.

Emotional Intelligence Inventory measure

The EII was originally designed by Tapia and Burry-Stock (1998) to assess the underlying elements of emotional intelligence. The EII items were developed following the original emotional intelligence model created by Salovey and Mayer (1990) and Mayer and Salovey (1997). The measure also incorporated part of the Emotional Intelligence Inventory designed by Acker et al. (1996), which incorporated the premises of Bar-on and Goleman's (Bar-On, 2000; Goleman, 1995) personality based theory of emotional intelligence.

The Tapia and Burry-Stock EII items were devised to measure the four areas of emotional intelligence: (1) perception, appraisal, and expression of emotion (empathy

factor); (2) emotional facilitation of thinking (handling relationships factor); (3) understanding and analyzing emotions, employing emotional knowledge (utilize feelings factor); and (4) reflective regulation of emotions (self-control factor) (Tapia, 2001, p. 355). The first area assessed the evaluation of emotional expression in the self and others' as well as empathy and nonverbal emotional display. Sample questions (see Appendix A for complete inventory) include: "I sympathize with other people when they have problems" (illustrating the self) and "Most people feel comfortable talking to me about their feelings" (illustrating the other) (Tapia & Burry-Stock, 1998). The second area is concerned with emotion that aids judgment and memory concerning feelings during the thinking process. For example, "When someone is annoying me, I stop to think about the other person's situation rather than losing my temper" (ibid.). The third category deals with the capability one possesses to understand and label complex emotions. Components such as planning, thinking creatively, and motivation are included. A sample question from this section is, "I can be assertive and forceful in situations where others are trying to take advantage of me" (ibid.). Lastly, the ability to regulate and stay open to both positive and negative emotions in the self and others is dealt with. For instance, "I lose control when I do not win in a sporting contest" (ibid.).

The EII was pilot tested on 111 high school students from Mexico City to estimate internal consistency (Tapia, 2001). To test the internal consistency of the EII the Cronbach coefficient α was computed. The original EII consisted of 45 items and had an internal consistency α score of .82, suggesting that most items significantly contributed to what was being measured. After deleting four items the α score reached .83 total value, which is close to the original score. The four deleted items were deleted based on

their total-to-item correlations (lower than .20). Since the variance did not significantly change after deleting the four, Tapia decided not to drop the other four items with low correlations. The revised EII had a mean of 145.9, a standard deviation of 15.9 and a standard error measurement of 6.5. The items appear to measure a sole, common trait with all item-to-total correlation coefficients above .20, the highest being .57. The subscale Cronbach α 's were reported as following: 1) the understanding emotions alpha was .73, 2) the utilization of feelings alpha was .70, 3) the handling relationships alpha was .77, and 4) the management of emotions alpha was .55 (see Table 1). This last alpha coefficient is quite low, which may suggest that it did not contribute significantly when measuring Emotional Intelligence; also, this score may indicate heterogeneity, or not measuring a common trait. However, this subscale was retained because it does contribute somewhat to overall emotional intelligence. One month after the preliminary pilot test, a test-retest was conducted on 60 of the original participants. The total Pearson correlation coefficient between the two test administrations for the total scale was .76. This correlation score indicates that the total EII scores are appropriately reliable and stable over time.

These findings indicate that the EII, in the revised form, is a reliable measure. This particular EII measure was selected for use in this study because the original study used high school students. Thus, to rely on the findings established by the Tapia study, a similar sample in terms of age was used in this study.

Table 1

Descriptive Statistics of the Emotional Intelligence Inventory (Tapia, 2001)

Emotional intelligence aspect (N=111)	Item numbers	α	<i>M</i>	<i>SD</i>
1. Perception and Appraisal of Emotion (empathy)	12	.77	42.6	6.7
2. Emotional Facilitation of Thinking (handling relationships)	11	.70	32.4	6.7
3. Understanding Emotions (utilize feelings)	9	.73	35.3	5.7
4. Management of Emotion (self-control)	9	.55	35.6	5.1
5. Total	41	.83	145.9	15.9

Normative Deviancy Scale

The 55-item Normative Deviance Scale (NDS), developed by Vazsonyi and Pickering (2000) for the International Study of Adolescent Development (ISAD) project, measures adolescent norm-violating deviance. Its purpose is to examine deviant behavior beyond status and index offenses, although the measure does account for these offenses also. This measure assesses a broad spectrum of crime and deviance ranging from serious status offenses (e.g., assault, murder, rape) to less serious index offenses (e.g., vandalism, alcohol, drugs, school misconduct) that are committed by many adolescents (Vazsonyi & Pickering). The developers of this scale assert that it transcends culture because it measures normative deviant behavior that is common in most cultures and countries

(Vazsonyi, Pickering, Junger, & Hessing, 2001; Vazsonyi & Pickering, 2000). Vazsonyi et al. (2001) emphasize that the NDS measures overall deviant behavior. The NDS has seven subscales measuring vandalism, alcohol, drugs, school misconduct, general deviance, theft, and assault.

Sample questions from each subscale of the NDS include (see Appendix A for complete scale): "Have you ever intentionally damaged or destroyed other property that did not belong to you?"; "Have you ever consumed alcoholic beverages before you were 21?"; "Have you ever used 'soft' drugs such as marijuana?"; "Have you ever cheated in school?"; "Have you ever avoided paying for something?"; "Have you ever stolen, taken, or tried to take something worth between \$10 and \$100?" and; "Have you ever hit or threatened to hit other students/peers or people?" (Vazsonyi, 2001; Vazsonyi et al., 2001). Responses for the NDS are given on a 5-point Likert scale (1 = never, 2 = one time, 3 = two to three times, 4 = four to six times, and 5 = more than six times). Overall deviancy is measured by computing the mean of all 55 items.

Vazsonyi et al. (2001) examined the reliability and validity of the NDS in a large-scale study ($N = 8,417$) of adolescents in four nations (Hungary, Netherlands, Switzerland, and United States); the adolescents from the United States numbered 2,213. The overall Cronbach's α for the NDS was .95, suggesting that it consistently measured normative deviancy across sex, age, and culture. Face validity is present in the measure because each of the subscale questions deal directly with the aspect under question; meaning that each question under a subscale only asks questions about that particular type of behavior. For example, the subscale on alcohol includes seven questions asking about type of alcohol consumed, reason for getting drunk, and how the alcohol was

obtained. The mean for the United States total deviance was 1.85 with a standard deviation of .70 (see Table 2 for descriptive statistics on the subscales). According to Vazsonyi et al. (2001) their psychometric findings for the NDS scale appear to reliably and consistently measure deviant behavior.

Table 2

Descriptive Statistics of the NDS for the United States (Vazsonyi, 2001)

Deviance measure ($N = 1,302$)	Item numbers	α	M	SD
Vandalism	8	.84	1.52	.72
Alcohol	7	.84	2.70	1.27
Drug use	9	.89	1.94	1.07
School misconduct	7	.76	2.05	.91
General deviance	11	.81	1.85	.74
Theft	7	.83	1.38	.64
Assault	6	.76	1.46	.66
Total deviance	55	.95	1.85	.70

Researcher information

The researcher who administered the questionnaires was widely knowledgeable concerning the research dealing with emotional intelligence. Many months were spent researching and reading about the topic. Also, the researcher coordinated with M. Tapia, the designer of the EII and A. Vazsonyi, creator of the NDS to get their permission and opinion on the scales (see Appendix C). The researcher is an Anglo-American female in her mid-twenties. During actual data collection four graduate students, three females and one male, from the department of Family and Human development were recruited to help in the classrooms. Each volunteer was familiar with this research and the procedures of data collection.

Research procedures

Once approval was received from the IRB (September, 2002) and the Vice-Superintendent (September, 2002) of Cache County School District, the student researcher contacted the three principals (October, 2002). The principals from North Cache and Sky View chose core classes to participate in the study in order to get a representative sample. A 9th grade required English class was chosen from North Cache, a 10th and 11th grade history and geography classes, and a 12th grade psychology class were chosen from Sky View. The entire student body present at Cache High on the day of data collection was invited to participate. All of the students voluntarily participated in the study. See Appendix C for documentation of appropriate letters of approval between the researcher and the authors of the measures, the school district, and the principals.

Teachers from North Cache and Sky View allowed a researcher to come during class time to explain the research project. Before leaving, two copies of the parental consent forms were handed out to each student and copies were given to the teacher for the absent students. Both copies of the consent form were to be signed by the parents; one copy was for the parental files and the other returned to the teacher. The researcher explained that in a week she would return to administer the questionnaires to the students who had turned in their signed parental consent forms. Each student who returned a consent form was given a candy bar and extra credit points if the teacher opted to do so. Both North Cache and Sky View awarded extra credit points. At Cache High, the researcher was invited to attend faculty meeting to present the research project. The faculty decided to hand out the consent forms instead of the researcher attending each class and explaining the project. The students at Cache high were offered extra credit as well as a candy bar for participation in the study. A total of 287 consent forms were handed out at the three schools.

A researcher administered the demographics survey, the 41-item EI inventory, and the 55-item delinquency measure (NDS) to the respondents during class time as provided by the teacher. Directions were provided in written form and verbally explained before the questionnaire was passed out. The written instructions for the EII read as follows:

“Directions: This inventory consists of statements about your feelings towards societal, personal, and emotional issues. There are no correct or incorrect responses. Read each item carefully. Think briefly about how you regard each statement. Use the following 5-point scale to respond to each item” (Tapia, 1998). After you finish the first page, front and back, turn to the second page and fill out the survey about deviant behavior. All information will remain confidential. Please do not put your name on this questionnaire. After you are finished

completing your questionnaires please seal them in the provided envelope and place it into the ballot box provided by the researcher. Thank you for your participation in this study.

Each student was given a pencil, envelope, and questionnaire forms to fill out. The students turned in their finished questionnaires (sealed in the provided envelope) to a ballot-type box (to ensure anonymity). The researcher remained in the classroom to answer any questions the respondents had concerning the measurement tools. Also, each researcher had a checklist to fill out with such questions as how many students were present, how many turned in consent forms, how many participated, what was the range of time it took to fill out the questionnaires, and how long the process took. A total of 152 students participated in the study of the 287 who received consent forms. The average time to complete the surveys was 15 minutes, 10 minutes being the shortest and 20 minutes the longest. Each researcher was in the classroom no longer than 30 minutes. On the day of data collection a total of five students were absent from the classes at Sky View (4) and North Cache (1), and seven were absent from Cache High.

When all the respondents finished the questionnaires, they were given their candy bar, and the researcher took the collection boxes from the classrooms. Once all the data were collected from that school, the assistant researchers turned in their ballot-type boxes and checklists to the student researcher responsible for this project. The questionnaires from each classroom and school were kept separate and then entered into a computer program. Procedures in the alternative high school were the same as the procedures in the high school and junior high school.

After preliminary data collection, it was determined that a bigger, more representative sample (especially of more deviant youths) was needed. Sky View's

principal and the researcher determined that five resource classes could be used to equalize the lack of respondents from Cache High. Many of the students in resource are not classified as deviant, but according to the experience of the researcher who worked as a teacher in juvenile corrections, more students in resource have been in juvenile detention than other students. Consent forms were passed out to 60 students during class time. The researcher returned a few days later to remind the students to return their forms. A week after passing out consent forms the questionnaires were handed out to those who had returned consent forms. Twenty-four students filled out questionnaires. The researcher, teacher, and two student aides were required to help many of the students read and interpret the questions for four of the classrooms; one classroom required no additional help. Five students were absent that day so the next day the researcher returned so that the five additional students were able to fill out questionnaires.

CHAPTER IV

RESULTS

Adhering to the procedures described in the Methods section, the resulting data were statistically examined to determine the strength of the relationships between EII scores and deviant behavior. Findings will be presented in this chapter as follows: first, the psychometric properties for both the EII and the NDS are summarized; second, the findings relevant to each of the research questions will be presented; and lastly, a summary of the findings is presented.

Psychometric Properties of the Instruments

Emotional Intelligence Inventory (EII)

Cronbach's alpha coefficient was used to assess the internal consistency of the EII and its subscales (Dooley, 2001). The EII measure contains 41 items, divided into four subscales: empathy, handling relationships, utilization of feelings, and self-control. When reliability statistics were first run using the items suggested by Tapia the alpha was not at all comparable. The researcher referred to Tapia's (2001) article and noticed that Tapia ran two different studies; each study included a different assortment of item questions under each subscale. The researcher contacted Tapia to clarify what test items belonged under each subscale. Tapia said to use the order found in the second study, which is what the researcher used. Alpha coefficients using the items as outlined in Tapia's second study revealed low estimates of internal consistency. The EII did not work as Tapia said it would because using her subscale order resulted in weak internal consistency!

However, in her 2001 paper, Tapia included a partial list of items generated for each subscale in her study; this list was ultimately used because it consistently measured emotional intelligence. A complete listing of the questions used to calculate Cronbach's alpha is included in Appendix B.

Use of these items (as shown in Appendix B) produced a total reliability coefficient of .83, which is equivalent to the coefficient of the total (.83) as reported by Tapia (2001) for her second study. The subscale coefficients Tapia (2001) achieved were empathy (.74), handling relationships (.75), utilization of feelings (.70), and self-control (.67). Table 3 contains Cronbach's alpha coefficients and the interscale correlations achieved for this study. A coefficient alpha of .83 (see Table 3) indicates adequate internal consistency for the construct of emotional intelligence. The similarity is impressive given that the EII was originally designed for high school students and was tested at a bilingual college preparatory school in Mexico; the sample for this study was of high school age, but the ethnicity of the participants was different. Deviant juveniles were included instead of only students enrolled at a preparatory school. Overall, it appears that all the EII items combined consistently measure some aspect of emotional intelligence.

Subscale 1: Perception, appraisal, and expression of emotion (empathy). Subscale one measures the appraisal of emotion in the self and in others, as well as nonverbal acuity and empathetic thinking. It had an overall alpha coefficient of .74, comparable to the coefficient reported by Tapia of .74. Interestingly, empathy was significantly correlated with the other three subscales and the total. It was highly

Table 3

Cronbach's Alpha Scores and Interscale Correlations for the EII Subscales and Total

EII	-1-	-2-	-3-	-4-	-5-
1. Empathy	(.74)				
2. Handling relationships	.60	(.63)			
3. Utilization of feelings	.55	.50	(.65)		
4. Self-control	.17	.11	.35	(.48)	
5. Total	.85	.77	.82	.48	(.83)

Note. Diagonal elements depict Cronbach's alpha coefficients.
($N=152$)

correlated, at the .05 level, with the total EII score with an $r = .85$; showing that empathy is an integral part of emotional intelligence; a student with high empathy is likely to have higher emotional intelligence. Empathy was also highly correlated (at .05 level) with handling relationships ($r = .60$) and utilization of feelings (.55) showing that as empathy increases so does one's ability to handle relationships and utilize his/her feelings.

Subscale 2: Emotional facilitation of thinking (handling relationships). The second subscale measured the generation of cognitive categories utilized in understanding and analyzing emotion and the way relationships are handled. Tapia (2001) reported an alpha of .75, whereas in this study the coefficient was .63, considerably lower than the original estimate. Positive correlations between handling relationships and the total scores ($r = .77$) and also between utilization of feelings (.50) were statistically significant.

There was no statistically significant correlation at the .05 level between self-control and handling relationships ($r = .11$).

Subscale 3: Understanding and analyzing emotions; employing emotional knowledge (utilization of feelings). This subscale seeks to measure one's ability to identify and understand complex feelings. Tapia's reported alpha = .70 was slightly larger than the coefficient in this study of alpha = .65. Possibly, the reason stems from what questions were used to calculate the coefficient. This difference is interesting because, most of the questions included in this study were similar to those reported by Tapia. The lower coefficient suggests that this subscale is not measuring utilization of feelings as well as it should. Pearson's correlation between this subscale and the total EII was positive and statistically significant at ($r = .82, p < .05$) and also between this subscale and self-control ($r = .35$).

Subscale 4: Reflective regulation of emotion (self-control). Subscale four assesses regulation of emotion in one's own self. This subscale is integrally weak and appears to be a weak contributor to overall emotional intelligence as well. However, the obtained alpha of .48 is substantially different from Tapia's reported alpha of .67. Self-control had the lowest Pearson correlation coefficient with the total EII ($r = .48$). Reasons for this lower correlation are explained in Chapter V. Overall, self-control also yields weak correlations at the .05 level of significance with the other three subscales.

In summary, the alpha coefficients estimated for the EII were similar to Tapia's findings. Some differences in scoring and items included in each subscale contributed to some inconsistencies between Tapia's EII and the EII for this study. Despite small

differences between the Tapia study and this study, the measure was deemed adequate for purposes of this study.

Normative Deviancy Scale (NDS)

Cronbach's alpha coefficient also was used to assess the internal consistency of the total NDS and its subscales (Dooley, 2001). The NDS measure contains 55 items divided into seven subscales: vandalism, alcohol, drug use, school misconduct, general deviance, theft, and assault. In comparison to the alpha coefficient of .95 that Vazsonyi et al. (2001) reported, this study generated an overall alpha of .98. No scoring problems were evident when calculating the reliability coefficients for the NDS. The NDS coefficients for all the subscales were substantially higher than the coefficients reported in 2001 by Vazsonyi et al. (see Table 4). As shown in Table 4, each Pearson's correlation was statistically significant.

As reported, the psychometric estimates indicate appropriate use of the selected instruments to investigate the proposed research questions stated in this thesis. Reliability estimates ranged from .48 to .83 for the EII and from .83 to .98 for the NDS.

Table 4

Cronbach's Alpha scores and Interscale Correlations for the NDS Subscales and Total

NDS	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
1. Vandalism	(.91)							
2. Alcohol	.61	(.92)						
3. Drug use	.71	.87	(.93)					
4. School misconduct	.76	.73	.76	(.89)				
5. General deviance	.84	.67	.77	.79	(.93)			
6. Theft	.81	.65	.75	.74	.84	(.92)		
7. Assault	.71	.49	.54	.60	.72	.69	(.83)	
8. Total	.88	.83	.91	.82	.93	.89	.76	(.98)

Note. Diagonal elements depict Cronbach's alpha coefficients.
($N=152$)

Validity

One can observe by examining the interscale correlations found in Table 3 that the EII appears to measure some form of emotional intelligence, although not as originally expected. The NDS appears to measure deviancy as expected and was a reliable measuring tool. However, the weakness of the EII as a measure of emotional intelligence tended to produce smaller reliability and correlation coefficients. Both the EII and NDS have tremendous face validity because each question included in the

subscales appears to measure some form of that subscale and of the overall construct. Two subscales of the EII, handling relationships ($r = -.14$) and self-control ($r = -.12$), had the highest interscale correlations with the NDS. These correlations are shown in the section next section under research question 1. Interestingly, there appears to be a strong relationship between deviant behavior and the EII subscales of handling relationships and self-control. A negative relationship was expected between the overall EII and NDS, showing that as emotional intelligence scores go up, deviant behavior goes down.

Research Questions

In this section each research question is stated as presented in the introduction. The method of statistical analysis and results are subsequently depicted for all statistical comparisons. The answers to the research questions are clearly stated; however, the conclusions and interpretation of the results are presented in the next chapter.

Research question 1

“Is there a relation between emotional intelligence and juvenile deviancy as measured by the Emotional Intelligence Inventory and Normative Deviancy Scale?” This research question addresses the relation between emotional intelligence as measured by the EII and adolescent deviant behavior as measured by the NDS. Table 5 contains the means and standard deviations for the EII and each subscale.

Table 5

Means and Standard Deviations for the EII and EII Subscales

Research question	Mean	Standard deviation
1. EII total	108.1	14.0
a. Empathy	38.9	6.0
b. Handling relationships	20.9	4.4
c. Utilization of feelings	27.7	4.7
d. Self-control	20.6	3.6

Note: $N=152$

For the overall totals of both the EII and NDS, the Pearson's correlation coefficient calculated between these two constructs was $r = -.08$; not statistically significant at the .05 alpha level. This result is surprising because it was expected that the correlation between emotional intelligence and deviant behavior would be substantial. Possible reasons for this not statistically significant finding are discussed in Chapter V. As predicted, however, the small relationship between the two constructs was negative, suggesting that as emotional intelligence goes up deviant behavior goes down. The answer to the first research question is that there is not a statistically significant relation between overall emotional intelligence and overall adolescent deviant behavior.

Subscale 1. "Is there a relation between the emotional intelligence aspect of perception and appraisal (empathy) and overall juvenile deviancy?" The Pearson's correlation between empathy and the NDS was $r = -.05$, not a statistically significant

result. Accordingly, there is not a statistically significant relationship between empathy and deviant behavior.

Subscale 2. "Is there a relation between the emotional intelligence aspect of emotional facilitation of thinking (handling relationships) and juvenile deviancy?" The analysis associated with this question yielded a correlation coefficient of $r = -.14$. Surprisingly, this comparison had the highest correlation coefficient when compared to other three subscales and the total EII. The negative relationship indicates that as the capacity to facilitate emotional thinking goes up deviant behavior declines. In response to the research question for this subscale there is not a statistically significant correlation between handling relationships and the NDS.

Subscale 3. "Is there a relationship between the emotional intelligence aspect of understanding emotion (utilization of feelings) and juvenile deviancy?" The Pearson's correlation was $r = .06$, which is also not statistically significant. Interestingly, the coefficient is positive and weak suggesting that as the ability to understand emotions increases so does deviant behavior. However, in response to the research question, no statistically significant relations were observed between deviancy and understanding emotions.

Subscale 4. "Is there a relation between the emotional intelligence aspect of management of emotion (self-control) and juvenile delinquency?" The correlation coefficient between self-control and deviancy was $r = -.12$, suggesting that as self-control increases deviancy decreases. In answer to this question, the coefficient failed to detect a statistically significant relationship.

Each of the subscales and the overall EII correlations with deviancy as measured by the NDS were not statistically significant, with 150 degrees of freedom using a two-tailed alpha of .05 level of significance. Nonetheless, it is interesting that the not statistically significant relationship between the two constructs was a negative one, suggesting that emotional intelligence may play a small part in decreasing deviant behavior.

Research question 2

The second question dealt with the relation between emotional intelligence and specific aspects of deviancy (vandalism, alcohol, drugs, school misconduct, general deviance, theft, and assault). Descriptive statistics for the deviancy measures are presented in Table 6, which provides the means and standard deviations for the NDS total and subscales. Most of the subscale distributions were positively skewed, meaning that few adolescents engaged in serious delinquent behavior. The only subscale that reflected a relatively normal distribution was school misconduct (e.g., cheating, missing class, etc.). Overall, NDS was positively skewed with a few outliers who represented highly deviant youth; the subscale distributions reflected the overall shape of the NDS, which is to be expected.

Table 6

Means and Standard Deviations for the NDS and NDS Subscales

Research question	Mean	Standard deviation
2. NDS total	107.9	43.6
a. Vandalism	13.9	7.5
b. Alcohol	13.3	8.5
c. Drug use	15.7	10.1
d. School misconduct	22.1	3.8
e. General deviance	20.6	10.8
f. Theft	11.8	7.1
g. Assault	10.5	5.5

Note: $N=152$

A couple of correlations between the EII and NDS were statistically significant. Specifically, overall emotional intelligence was significantly correlated with vandalism ($r = -.17, p < .05$); there was a negative relationship between the two measures. Assault was also negatively correlated with overall emotional intelligence scores ($r = -.17, p < .05$). The significant correlation and the other subscale correlations are all quite small; the strength of the relationship between overall EII and the NDS and its subscales is weak.

To address the remainder of this research question, correlations between the EII and NDS subscales need to be considered. As shown in Table 7, most of the intersubscale correlations were not statistically significant, reflecting the overall EII and NDS

correlational coefficients. Statistically significant negative correlations were found between 1) handling relationships and vandalism ($r = -.20, p < .05$), 2) handling relationship and general deviance ($r = -.21, p < .05$), 3) handling relationships and assault ($r = -.22, p < .05$), 4) self-control and vandalism ($r = -.18, p < .05$), 5) self-control and general deviance ($r = -.16, p > .05$), and 6) self-control and assault ($r = -.17, p > .05$). In other words, handling relationships can explain roughly 4% of the variability in the NDS factors of vandalism, general deviance, and assault. Self-control can explain roughly 3% of the variability in the NDS factors if vandalism, general deviance, and assault. Most of these correlations, however small, were negative. Interestingly, a few correlations were positive, weakly suggesting that as the emotional intelligence factor of utilization of feelings increases so does deviancy. However, this statement should be cautiously interpreted because the correlation is so small that any claims made should be minimized. The positive correlations were found between the EII subscale of utilization of feelings and drug use, school misconduct, general deviance, theft, assault, and the overall NDS total. See Table 7 for all of these correlations.

Table 7

Subscale Pearson's r Correlations

Subscales	Empathy	Handling relationships	Utilization of feelings	Self-control
Vandalism	-.14	-.20*	-.02	-.18*
Alcohol	-.04	-.14	-.08	-.15
Drug Use	-.05	-.15	.01	-.06
School Misconduct	-.03	-.13	.01	-.12
General Deviance	-.09	-.21*	.06	-.16*
Theft	-.12	-.11	.01	-.15
Assault	-.14	-.22*	.02	-.17*

* $p < .05$, $N=152$

Summary of findings

In terms of reliability, the EII was shown to be a weak measurement tool because it had to be changed in order to gain sufficient reliability coefficients. On the other hand, the NDS was a reliable measurement tool. The only noticeable drawback of the NDS was the positively skewed distribution attained from this sample.

There were two major research questions encompassed in this study. The first question sought to investigate the relation between emotional intelligence and juvenile deviancy using overall EII and NDS scores. Also included under the first research question were four subquestions dealing with each specific subscale in relation to overall NDS scores. No statistically significant correlations were found between the EII, its

subscales and the NDS. It was expected that negative correlations between the two constructs would be found, which was found to be true for all the EII subscales except utilization of feelings.

The second question correlated the seven subscales of the NDS to the EII subscales. Two of the EII subscales (handling relationships and self-control) significantly correlated with three subscales of the NDS (vandalism, general deviance, and assault). Most of the correlational findings were negative which was expected. Only the EII subscale of utilization of feelings was positively correlated with several NDS subscales (drug use, school misconduct, general deviance, theft, and assault). All of the correlations were weak and not substantial but in the expected direction.

CHAPTER V

DISCUSSION AND CONCLUSIONS

In the present study it was postulated that emotional intelligence and juvenile deviancy would be related. Statistical results did not strongly support a significant relationship between emotional intelligence and deviancy. Findings with respect to the two main research questions are examined in this chapter. Additionally, possible and alternative explanations are given in regard to the findings. Finally, limitations of the present study and recommendations for future research are explored.

Research Questions

As stated, the purpose of this study was to apply the construct of emotional intelligence within the more established delinquency and deviancy framework. Two major research questions guided this research, one related to a possible association between the EII (measuring emotional intelligence) and the NDS (measuring deviancy), the other examined relations between the subscales of the EII and NDS. The following discussion addresses the findings associated with the two major research questions in light of previous research.

Research question 1

Findings from this study indicate that there is no relation between overall emotional intelligence and its four subscales as measured by the EII and juvenile deviancy as measured by the NDS. In light of Moriarty and colleagues' (2001) findings that linked overall low emotional intelligence with adolescent sex offenders, the results of

this study were not expected. The Moriarty et al. study specifically related lack of empathy and inability to distinguish one's emotions as predictors for lower emotional intelligence and a propensity for serious delinquent behavior (sex offenses).

In this study, a small negative correlation coefficient was found between empathy and deviancy, and a small positive correlation coefficient was found between utilization of feelings and deviancy. These two specific findings contradict the research findings of Moriarty et al. A negative relation was predicted because of the past research (Moriarty et al., 2001; Trinidad & Johnson, 2002), which related low emotional intelligence to deviant behavior. The one positive coefficient between utilization of feelings and deviancy was especially surprising because the inability to distinguish emotions was thought to contribute to deviant behavior (Moriarty et al.; Parker et al., 2000).

Although no statistically significant relations were found with regard to the first research question, there was a small negative relation between overall emotional intelligence and deviancy, suggesting that as emotional intelligence increases, deviant behavior decreases. This finding is important because it suggests that emotional intelligence plays a small part in deviant behavior. There are so many other factors influencing deviant behavior, such as neuropsychological factors, personality characteristics, and family and peer influences (as reviewed in Chapter II), that a strong correlation coefficient was not necessarily expected; however, a statistically significant correlation was expected. Reasons for not achieving statistical significance are addressed in the limitations section.

The theoretical implications of the findings are not very useful because the results show weak relations between overall emotional intelligence and deviant behavior.

Previous research connecting the two constructs is very limited. In order to influence theory, more studies need to be conducted and compared with these results to validate the findings. One such study, conducted by Trinidad and Johnson (2002) compared tobacco, drug, and alcohol use to overall emotional intelligence. Trinidad and Johnson also observed a small correlation coefficient ($r = -.19$) that is comparable to the results of this study. The correlation for this study between emotional intelligence and drug use was ($r = -.08$) and for alcohol use it was ($r = -.13$); both of these correlations were small and not statistically significant, coinciding with Trinidad and Johnson's findings.

Research question 2

The second research question asked if emotional intelligence (and its subscales) were specifically related to the seven aspects of the NDS. Overall the answer to this question was that there are few statistically significant correlations between the EII and the NDS subscales. Statistically significant relations were found between the EII subscales of handling relationships and self-control and the NDS subscales of vandalism, general deviance, and assault. Also, statistical significance was observed between the EII total and vandalism and assault. Most of the correlation coefficients were negative, as expected. Positive coefficients were evident between utilization of feelings and five of the NDS subscales.

The ability to understand, analyze, and employ emotional knowledge was shown to be negatively related to acts of vandalism, general deviant behavior, and assault. Moriarty et al. (2001) postulated that difficulty in identifying emotion contributed to the motivation to offend. Their findings correspond with the statistically significant results

reached in this study. It appears that lower abilities to utilize emotions are associated with an increase in the propensity to vandalize, behave aggressively toward other human beings, and to engage in general deviant acts.

Regulation of emotions in the self and others (self-control subscale) was also shown to be statistically significantly related to vandalism, general deviant behavior, and assault. An aspect of self-control was discussed in the Valliant and Davis (2000) study on midlife resiliency and emotional intelligence. They found that lower levels of the ability to delay gratification (part of self-control) resulted in lower resiliency. Earlier work by Emmy Werner (1989) showed that resiliency protects children from deviant behavior; thus lower resiliency may increase the risk for youth to respond with deviancy. Also, reduced levels of self-control appear to be somewhat related to acts of vandalism, general deviancy, and assault. Specifically, Moriarty et al. (2001) found that high impulsivity and aggressive behavior was related to the type of crime committed; specifically, acts ranging from gross indecency to rape. The significance between self-control and assault is especially interesting in light of Moriarty et al.'s conclusions because lack of self-control appears to influence deviant behavior.

Statistically significant correlations also were evident between the total EII and vandalism and assault. The literature on vandalism was not reviewed because significant relations between emotional intelligence and vandalism were not expected. However, as stated in the above paragraph, one specific study linked lower emotional intelligence with aggressive behavior, which is encompassed in the NDS subscale of assault (Moriarty et al., 2001).

Lastly, interesting relations were found between the subscale of utilization of feelings and the NDS. Specifically, positive relations were observed between this subscale and the NDS subscales of drug use, school misconduct, general deviance, theft, and assault. Positive correlations suggest that as emotional intelligence increases so do these behaviors. Why a positive correlation was achieved is difficult to answer. Possibly, the ability to utilize feelings allows one to deal more efficiently with the emotional aspects of these deviant acts. No research, as of yet, has correlated the ability to identify and understand emotions with deviant behavior.

All of the correlations generated in relation to this research question were small, indicating a weak relation between each EII and NDS subscale. Even though statistical significance was achieved between some of the subscales, interpretations should be made with caution. Possibly, these results are due to the skewed distribution of the NDS, the psychometric weakness of the EII, and the overall research design. The sample of deviant versus nondeviant youths was also not representative, skewing the results to the nondeviant side. Another interpretation of this study's weak results could stem from an integrally weak relationship between deviancy and emotional intelligence. The two other studies conducted by Trinidad and Johnson (2002) and Moriarty et al. (2001) found weak relationships between emotional intelligence and specific aspects of deviant behavior (tobacco and drug use, alcohol, and sex offending); this study also found a weak relationship.

Limitations

In exploratory research, it is imperative to address research design limitations (Dooley, 2001); threats to internal validity weaken a research study. In this section, threats to the internal validity of this study are explained in order to place greater confidence in and better interpretation of the results. Dooley suggested several threats to internal validity that limit research findings, several of which apply to this study: sampling, selection, non-response, and experimental confound threats. Each of these threats are discussed in turn.

First, sampling threats for this study hinge on the sample of convenience attained by the researcher. This is a major threat because the sample was not random; most subjects included in this study had unequal chances of being selected. The alternative high school was purposely chosen because most of the students have a known history of deviant behavior. The high school and junior high were chosen by the researcher and approved by the school district.

Second, selection threats include group threats, which are observed differences between groups that existed prior to observation because of the way groups were sorted (Dooley, 2001). In this study, an alternative high school and later resource students were used to provide a diverse sample of deviant and nondeviant adolescents. The alternative high school was intentionally selected because of the student's characteristics. In fact, this study was conducted on the assumption that differences would be found, particularly with regard to deviant behavior.

Third, nonresponses and attrition of subjects posed another weighty threat because only 152 out of 287 students actually participated in this study (53%). Thus, the attrition rate was 47%. This rate impacts the ability to interpret and apply the results.

Fourth, experimental confounds played a small part in this study. This threat was not seen as a concern because the questionnaire was administered with identical written instructions for each participant to follow in each classroom setting. Experimenter expectancy was reduced because a standardized measure was used along with envelopes and ballot-box to ensure anonymity. However, experimental confounds effects may have been introduced when the researcher had to help 15 resource students read and interpret the questions. Anonymity was reduced because the researcher saw each mark the student made on the questionnaire. Student's responses were affected, especially with the deviancy measure, because most students do not want others to know what kinds of deviant behaviors they engage(d) in.

Inadequacy of the measures used was a major threat to internal validity. In particular, the EII measure posed a serious threat to this study because it did not behave the way it was supposed to according to Tapia (2001). Comparing a measure low in reliability with the reliable NDS measure suppressed the correlational findings. Also, the EII and the NDS were self-report measures, which have some disadvantages. Self-reports tend not to reflect actual behavior; people tend to provide answers that are socially acceptable. Also, self-reports limit the range of responses that can be given. The EII was chosen because it was a short questionnaire instead of the expensive and lengthy cognitive tests such as the Emotional Quotient inventory (IQ-i), Multifactor Emotional Intelligence Scale (MEIS), and Trait Meta-Mood Scale (TMMS). Use of these and other

lengthy cognitive tests would give an accurate representation of emotional intelligence. Also, because these tests are like traditional intelligence testing protocol and procedures have already been established. The validity of emotional intelligence as a cognitive ability would also be better supported. A self-report measure was used to measure deviancy; the same drawbacks of self-report mentioned above also apply to the NDS.

The shape of the NDS distribution posed an internal validity threat because the high non-response rate and attrition (at the alternative high school) affected the diversity of deviant youth. Only 35% of the alternative high school students participated in this study, causing the distribution of scores to be positively skewed. This means that more of the adolescents who participated were not deviant. The skewed NDS and the unreliable EII could have affected the correlation coefficients between the studied constructs.

One last limitation concerns the lack of research involving emotional intelligence and deviant behavior. As of yet, no studies have examined possible relations between deviant behaviors of vandalism, general deviancy, and assault and the ability to handle relationships, the ability of self-control, and emotional intelligence as a whole. A lack of exploratory studies, investigating how deviancy and specific aspects of emotional intelligence are related, weakened the ability to compare results with other research.

Although many of the threats discussed in this section limited the findings and integrity of this study, the results are still valuable. Even a weak relationship or no relationship tells something about how two or more constructs are related. The threats outlined above act as cautionary signs to the reader to interpret the results carefully. Several suggestions are provided in the next section that could strengthen future studies on the subject of emotional intelligence and deviant behavior.

Recommendations for Future Research and Final Comments

Future research involving the study of emotional intelligence and deviant behavior should follow several recommendations. Because emotional intelligence research is still in its exploratory stage, correlational studies are strongly advised. First, a large random sample rather than a sample of convenience is advised. The selection of a sample should include a wide range of diversity in levels of deviancy in order to stabilize the skewed distribution of the NDS. Second, the high attrition rate of students encountered in this study could be avoided by having a closer personal contact with the students and returning several times to remind the students to turn in their consent forms. Third, it is recommended that a different measure of emotional intelligence such as the MEIS or the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT), which are more involved intelligence tests or self-report instruments such as the TMMS or the EQ-i, be utilized. Administration of the measures should be more consistent as some of the students required individual assistance. The NDS measure was found to be a good measure; the only recommendation would be a more representative sample to match the instrument.

Emotional intelligence is truly an illusive but potentially valuable construct. It can be used to appraise goodness-of-fit of an individual into society. The emotional traits of delinquent or deviant adolescents are difficult to tap especially because the current measurement tools are limited and expensive. The relation between emotional intelligence and deviancy is important because deviant behavior is a weighty social issue requiring intervention (OJJDP, 1999), and if the strength of this relationship could be

determined, then appropriate interventions can be implemented. Teaching individualized emotional skills, such as empathy skills and self-control tools, to deviant youth could improve their standing in society. Emotional intelligence is an exciting area of research that has many potential benefits for our present society.

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APPENDICES

Appendix A
Measures and Consent Form

My name is Jennifer Lance and I am conducting a research project for my Master's thesis. I am investigating possible relationships between deviant behavior and emotional intelligence. Emotional intelligence is a new concept that refers to how people use emotions as part of the thinking process. I appreciate your help in participating in my project!

Age: 14 15 16 17 18+ Sex: Male Female Grade: 9 10 11 12

Race: Caucasian African American Hispanic Native American Asian Other

School: Sky View North Cache Cache High

Parent's Marital Status: Married (never divorced) Divorced Remarried Separated

Never Married Single

Have you ever been incarcerated or held in custody at a Youth Corrections (DT) Center? Yes No

EMOTIONAL INTELLIGENCE INVENTORY

Directions: This inventory consists of statements about your feelings towards societal, personal, and emotional issues. There are no correct or incorrect responses. Read each item carefully. Think briefly about how you regard each statement. Use the following response scale to respond to each item. After you finish the first page, front and back, turn to the second page and fill out the survey about deviant behavior. All information will remain confidential. Please do not put your name on this questionnaire. After you are finished completing your questionnaires please seal them in the provided envelope and place it into the ballot box provided by the researcher. Thank you for your participation in this study.

PLEASE USE THESE RESPONSE CODES:

- 1 - NEVER LIKE ME
2 - OCCASIONALLY LIKE ME
3 - SOMETIMES LIKE ME
4 - FREQUENTLY LIKE ME
5 - ALWAYS LIKE ME

	1	2	3	4	5
1. I sympathize with other people when they have problems.					
2. I go out of my way to help someone in need.					
3. Overt human suffering makes me feel uncomfortable.					
4. I can tell when other people's feelings are hurt.					
5. I am uncomfortable when someone is making fun of another person.					
6. I am sympathetic with a nervous speaker.					
7. I feel hurt when someone has taken advantage of a less fortunate person.					
8. When someone is annoying me, I stop to think about the other person's situation rather than losing my temper.					
9. When I've offended someone, I am aware of it almost immediately.					
10. In most cases I give people a second chance.					
11. I feel moved to intervene when someone is abusing a helpless animal.					
12. Criticism is difficult for me to accept.					
13. There are times when I let a problem work itself out by waiting.					
14. It is too stressful to stop unwanted personal habits such as overeating, smoking, nail biting.					
15. I get emotionally bothered when I am exposed to an upsetting TV show, movie, or book.					
16. Having car trouble causes me to feel stressful.					

PLEASE USE THESE RESPONSE CODES:

- 1 - NEVER LIKE ME
 2 - OCCASIONALLY LIKE ME
 3 - SOMETIMES LIKE ME
 4 - FREQUENTLY LIKE ME
 5 - ALWAYS LIKE ME

	1	2	3	4	5
17. Being expected to take charge of a group activity is upsetting to me.					
18. I lose control when I do not win in a sporting contest.					
19. Traffic jams cause me to lose control.					
20. Most people feel comfortable talking to me about their personal feelings.					
21. People enjoy spending time with me.					
22. I can be assertive and forceful in situations where others are trying to take advantage of me.					
23. It is easy for me to openly express warm and loving feelings towards others.					
24. I avoid responsibility whenever I can.					
25. My moods are easily influenced by those around me.					
26. I am aware of even subtle feelings as I have them.*					
27. When I am angry, I express my feelings in a way that deals well with the situation.*					
28. I am able to express my feelings without hurting others.					
29. I understand why I react the way I do in situations.					
30. I think about how I can improve my relationships with those I love.					
31. I think about how I can improve my relationships with those people that I don't get along with.					
32. I think about why I don't like a person.					
33. When someone makes me uncomfortable, I think about why I am uncomfortable.					
34. I tend to procrastinate.					
35. I use my feelings to help make decisions.					
36. I can delay gratification (to wait for something better rather than get immediately what you want) in pursuit of my goals.					
37. When I am anxious about a challenge, I still can prepare for it.					
38. I can soothe or contain distressing feelings so they don't keep me from doing things I need to do.*					
39. I find that setbacks and disappointments are lessons learned.					
40. I am able to stay motivated when things do not go well.					
41. I keep myself focused on my goals.					

* Taken from USA Weekend for Educational Purposes, September 11, 1995.
 Copyright © 1998

Directions: This is the Normative Deviancy Scale (NDS) survey, it consists of statements about general deviant behavior that is less serious. There are no correct or incorrect responses and whatever you report on this questionnaire will be kept anonymous. Read each item carefully and then check the appropriate box corresponding to your answer. Please make sure each item is filled out before turning this survey in.

Please check or fill in the box corresponding to your answer:

Have you ever:	Never	1 Time	2-3 Times	4-6 Times	6+
Smashed bottles on the street, school grounds, or other areas?					
Intentionally damaged or destroyed property belonging to your parents or other family members (brothers or sisters)?					
Intentionally damaged or destroyed property belonging to a school, college, or university?					
Intentionally damaged or destroyed other property (signs, windows, mailboxes, parking meter, etc.) that did not belong to you?					
Intentionally damaged or destroyed property belonging to your employer or at your work place?					
Slashed or in any way damaged seats on a bus, in a movie theater, or something at another public place?					
Written graffiti on a bus, on school walks, on restroom walls, or on anything else in a public place?					
Committed acts of vandalism when coming or going to a football game or other sports event?					
Consumed hard liquor (e.g. tequila, whiskey, vodka, or gin) before you were 21?					
Consumed alcoholic beverages (e.g. beer, wine, or wine coolers) before you were 21?					
Got drunk (intentionally) just for the fun of it (at any age)?					
Got drunk just to fit in and be part of the crowd (at any age)?					
Lied about your age to buy alcohol before you turned 21?					
Had an older brother/sister or friend buy alcohol for you?					
Bought alcohol for a brother/sister or friend?					
Used tobacco products regularly (e.g. cigarettes, chew, snuff, etc.)					
Used "soft" drugs such as marijuana (grass, pot)?					
Used "hard" drugs such as crack, cocaine, or heroine?					
Gone to school when you were drunk or high on drugs?					
Gone to work when you were drunk or high on drugs?					
Gone to a concert when you were drunk or high on drugs?					
Gone to a club/dance/party when you were drunk or high on drugs?					
Gone to a club/dance/party to get drunk or high on drugs?					
Sold any drugs such as marijuana (grass, pot), cocaine, or heroin?					
Cheated in school (e.g. cheat sheet, copy from neighbor, etc.)?					
Been sent out of a classroom because of "bad" behavior (e.g. inappropriate behaviors, cheating, etc.)?					
Been suspended or expelled from school?					
Stayed away from school/classes when your parent(s) thought you were there?					

Have you ever:	Never	1 Time	2-3 Times	4-6 Times	6 +
Intentionally missed classes over a number of days for "no reason," just for fun (e.g., there was no family emergency)?					
Been in trouble at school so that your parents received a phone call about it?					
Skipped school/work (pretending you are ill)?					
Intentionally disobeyed a stop sign or red traffic light while driving a vehicle?					
Been on someone else's property when you knew you were not supposed to be there?					
Failed to return extra change that you knew a cashier gave you by mistake?					
Tried to deceive a cashier to your advantage (e.g. flash a larger bill and give a smaller one)?					
Let the air out of the tires of a car or bike?					
Lied about your age to get into a nightclub/bar?					
Made nuisance/obscene telephone calls?					
Avoided paying for something (e.g. movies, bus or subway rides, food, etc.)?					
Used fake money or other things in a candy, coke, or stamp machine?					
Shaken/hit a parked car just to turn on the car's alarm?					
Stayed out all night without informing your parents about your whereabouts?					
Stolen, taken, or tried to take something from a family member or relative (e.g. personal items, money, etc.)?					
Stolen, taken, or tried to take something worth \$10 or less (e.g. newspaper, pack of gum, mail, money, etc.)?					
Stolen, taken, or tried to take something worth between \$10 and \$100 (e.g. shirt, watch, cologne, video game cartridge, shoes, money, etc.)?					
Stolen, taken, or tried to take something worth more than \$100 (e.g. leather jacket, car stereo, bike, money, etc.)?					
Stolen, taken, or tried to take something that belonged to "the public" (e.g. street signs, construction signs, etc.)?					
Stolen or tried to steal a motor vehicle (e.g. car or motorcycle)?					
Bought, sold, or held stolen goods or tried to do any of these things?					
Hit or threatened to hit a person?					
Hit or threatened to hit your parent(s)?					
Hit or threatened to hit other students/peers or people?					
Used force or threatened to beat someone up if they didn't give you money or something else you wanted?					
Been involved in gang fights or other gang activities?					
Beaten someone up so badly they required medical attention?					

Informed Consent

The Relationship between Emotional Intelligence and Adolescent Deviant Behavior

Dear Parent:

Dr. Randall Jones, a faculty member in the Department of Family and Human Development and principal investigator (PI) and Jennifer Lance, a graduate student at Utah State University are conducting research to better understand how emotional intelligence affects delinquent or deviant behavior. Emotional intelligence is a new concept being investigated to understand how emotions help in the thinking process. Knowing how emotional intelligence affects delinquent behavior will help us know how to better prevent delinquency. Approximately 200 students in Cache Valley will participate in this study. Your child's participation will include the completion of three brief questionnaires. Randall M. Jones will oversee the research and Jennifer Lance will supervise the project.

The information related to you and your child will be treated with strict confidence to the extent provided by the law. Names will not be recorded on the questionnaires in order to maintain anonymity. The students will be asked to put their questionnaires into an envelope, seal it and drop it into a ballot box. This study will begin the end of October and continue until the middle of December 2002.

Your adolescent child's participation in this study is completely voluntary. You are free to deny permission for your child to fill out the three questionnaires comprising this research project. Your signature at the bottom of this consent form indicates your permission to allow your child to contribute to this study. Two copies are provided, one for your records and the other will be returned to the principal's office. Please be sure to sign both copies.

The Institutional Review Board (IRB) at Utah State University has reviewed and approved this research. If you have any additional inquiries or concerns about this approval please call the IRB Office at (435) 797-1821. Your participation in this study is voluntary and you may discontinue your adolescent's participation at any time without consequence.

Randall M. Jones, P.I. Date
(435) 797-1553
email: rjones@cc.usu.edu

Jennifer Lance, Student Date
(435) 245-5273
email: jennilance@cc.usu.edu

Informed Consent

The Relationship between Emotional Intelligence and Adolescent Deviant Behavior

Parent(s) Consent: I have read and understood this research project. If I have any questions I may call Randy Jones or Jennifer Lance prior to signing this document. By signing below I agree to allow my adolescent to participate in this research.

Name of Parent: _____

Signature of Parent: _____ Date

Signed: _____

Adolescent assent: I understand that my mother/father or guardian is/are aware of this research and that they have given permission for me to participate. I understand that I may participate if I want to. If I do not want to be in this study, I do not have to and no one will be upset if I don't want to participate or if I change my mind later and want to stop. If I have any questions about this research, I may ask them now or later. By signing below I agree to participate in this research.

Name of Adolescent: _____

Signature of Adolescent: _____ Date Signed: _____

Appendix B

EII Questions Used in Analysis

Questions from EII by Subscale Category

Subscale (bolded) and Related Item Number

Perception, Appraisal, Expression of Emotion (Empathy)

1. I sympathize with other people when they have problems.
2. I go out of my way to help someone in need.
4. I can tell when other people's feelings are hurt.
5. I am uncomfortable when someone is making fun of another person.
6. I am sympathetic with a nervous speaker.
7. I feel hurt when someone has taken advantage of a less fortunate person.
9. When I've offended someone, I am aware of it almost immediately.
20. Most people feel comfortable talking to me about their personal feelings.
21. People enjoy spending time with me.
27. When I am angry, I express my feelings in a way that deals well with the situation.
28. I am able to express my feeling without hurting others.

Emotional Facilitation of thinking (Handling Relationships)

8. When someone is annoying me, I stop to think about the other person's situation rather than losing my temper.
10. In most cases I give people a second chance.
15. I get emotionally bothered when I am exposed to an upsetting TV show, movie, or book.
26. I am aware of even subtle feelings as I have them.
31. I think about how I can improve my relationships with those people that I don't get along with.
32. I think about why I don't like a person.
33. When someone made me uncomfortable, I think about why I am uncomfortable.

Understanding and Analyzing Emotions, Employing Emotional Knowledge (Utilization of Feelings)

11. I feel moved to intervene when someone is abusing a helpless animal.
22. I can be assertive and forceful in situations where others are trying to take advantage of me.
29. I understand why I react the way I do in situations.
30. I think about how I can improve my relationships with those I love.
35. I use my feelings to help make decisions.
37. When I am anxious about a challenge, I can still prepare for it.
40. I am able to stay motivated when things do not go well.
41. I keep myself focused on my goals.

Reflective Regulation of Emotions (Self-Control)

14. It is too stressful to stop unwanted personal habits such as overeating, smoking, nail biting.
 16. Having car trouble causes me to feel stressful.
 18. I lose control when I do not win a sporting contest.
 19. Traffic jams cause me to lose control.
 36. I can delay gratification in pursuit of my goals.
 38. I can soothe or contain distressing feelings so they don't keep me from doing the things I need to do.
-

Note: taken from Tapia (2001)

APPENDIX C
Forms of Approval

Hotmail

Page 1 of 1



Hotmail® jolli_jenni@hotmail.com

[Inbox](#) | [Previous Page](#)

From: Martha Tapia <mtapia@berry.edu>
To: "Jennifer Lance" <jolli_jenni@hotmail.com>
Subject: Re: Measure
Date: Wed, 03 Jul 2002 16:02:49 -0400
Attachments: EQ41.doc (34k)

Dear Jennifer,

Attached is a file with the Emotional Intelligence Inventory. Hope you find it useful. You have permission to use it. If you decide to use it, please let me know. If you have question, please don't hesitate to ask.

Good luck,

Martha Tapia

At 09:34 AM 07/03/2002 -0600, you wrote:

Dr. Tapia:

I am a graduate student at Utah State University working on my thesis researching Emotional Intelligence. The measure you created is impressive! I wrote you a few months ago in regards to using your measure for my research. I need the measure again and your permission to use it. If you have any questions feel free to contact me.

Thank you very much,

Jennifer Lance

Join the world's largest e-mail service with MSN Hotmail. [Click Here](#)

Martha Tapia, Ph.D.
Assistant Professor of Mathematics Education
Berry College
P. O. Box 5014
Mt. Berry, GA 30149-5014
Phone (706)-290-2662
Fax (706)-238-7849



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Hotmail

Page 1 of 3



Hotmail® jolli_jenni@hotmail.com

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From : "Alexander T. Vazsonyi, Ph.D." <vazsonyi@auburn.edu>
 To : "Jennifer Lance" <jolli_jenni@hotmail.com>
 Subject : Re: Normative Deviance Scale
 Date : Wed, 10 Jul 2002 10:06:47 -0500

Jennifer,

There are a couple more recent publications to date that have used the NDS and a few in press. Essentially though, you should be able to get all the necessary info from one of the following three publications in order to use the scale:

Vazsonyi, A. T., Pickering, L. E., Junger, M., and Hessing, D. (2001). An empirical test of A General Theory of Crime: A four-nation comparative study of self-control and the prediction of deviance. *Journal of Research in Crime and Delinquency* 38(2), 91-131.

Vazsonyi, A. T. & Killias, M. (2001). Immigration and crime among youth in Switzerland. *Criminal Justice and Behavior*, 28(3), 329-366.

Vazsonyi, A. T., & Pickering, L. E. (2000). Family processes and deviance: A comparison of apprentices and non-apprentices. *Journal of Adolescent Research*, 15(3), 368-391.

I am the author of the scale, so all I ask is that you reference it appropriately (with one or multiple of the above citations) when you use it. Of course I would also be very interested in hearing about your results and the performance of the scale once you have collected your data.

Finally - you asked about my opinion of the scale - of course, I am biased, but I think it is a very useful measure if you are interested in a large range of deviant behaviors, something that is important in a "normal" sample. Of course there are measures that tap into very recent versus somewhat recent events versus lifetime events etc. Based on the evidence regarding the differences between these time frames, I do not believe that this is a useful distinction, and therefore, a lifetime measure performs as well as any other. A number of authors have written about this.

Best regards and good luck with your thesis - it sounds like an interesting topic and an interesting sample.

Alex

At 10:38 PM 7/9/2002 -0600, you wrote:

Thank you for responding so quickly! The article I read was *An empirical test of a general theory of crime: A four-nation comparative study of self-control and the prediction of deviance*. Specifically, my thesis topic will explore the relationship between emotional intelligence—using the Multifactor Emotional Intelligence Scale: Adolescent version (MEIS-A)—and adolescent delinquency—hopefully using the NDS. I will have adolescents at a local youth detention center and two high-schools participate in my study (n=100). Most of the measures are self-report using five-point likert scales. I am excited to receive your advise and perspective regarding my project.

Thank you,

Jennifer

>From: "Alexander T. Vazsonyi, Ph.D."
 >To: "Jennifer Lance"
 >Subject: Re: Normative Deviance Scale
 >Date: Tue, 09 Jul 2002 13:54:03 -0500
 >
 >Jennifer,
 >

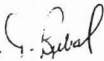
Utah State UNIVERSITY

9/27/2002

VICE PRESIDENT FOR RESEARCH OFFICE
1450 Old Main Hill
Logan UT 84322-1450
Telephone: (435) 797-1180
FAX: (435) 797-1367
Email: vpr@cc.usu.edu

MEMORANDUM

TO: Randy Jones
Jennifer Lance

FROM: True Rubal, IRB Administrator 

SUBJECT: Emotional Intelligence and Juvenile Delinquency: Do Delinquents Have Lower Emotional Intelligence?

Your proposal has been reviewed by the Institutional Review Board and is approved under expedite procedure #7.

- X There is no more than minimal risk to the subjects.
There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file for the period of one year. If your study extends beyond this approval period, you must contact this office to request an annual review of this research. Any change affecting human subjects must be approved by the Board prior to implementation. Injuries or any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Institutional Review Board.

Prior to involving human subjects, properly executed informed consent must be obtained from each subject or from an authorized representative, and documentation of informed consent must be kept on file for at least three years after the project ends. Each subject must be furnished with a copy of the informed consent document for their personal records.

The research activities listed below are expedited from IRB review based on the Department of Health and Human Services (DHHS) regulations for the protection of human research subjects, 45 CFR Part 46, as amended to include provisions of the Federal Policy for the Protection of Human Subjects, June 18, 1991.

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.



Cache County School District

2063 North 1200 East
North Logan, UT 84341-2007
Phone (435) 752-3925

Fax (435) 753-2168

www.cache.k12.ut.us

September 18, 2002

Jennifer R. Lance
43 East 200 North
Wellsville, Utah 84339

Dear Jennifer,

Thank you for submitting the proposed research project titled: Emotional Intelligence and Juvenile Delinquency..." The proposal has been reviewed and it is approved for you to survey the students at Cache High School, one class of ninth graders at North Cache 8-9 Center and one class each of 10,11, and 12th graders at Sky View High School.

Please contact the principals and review your research proposal with them. At that time inform the principal about the importance of the study. Also, pay particular attention to informing each principal how parents will be contacted and permission secured for student participation.

If I can help, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Stephen W. Zsiray, Jr." The signature is written in a cursive style.

Stephen W. Zsiray, Jr.
Associate Superintendent

CACHE HIGH SCHOOL

October 28, 2002

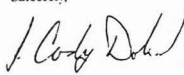
Jennifer Lance
Student Research
USU

Dear Jennifer:

I am writing on behalf of Cache High School to confirm our willingness to participate in your research project. I would also like to reaffirm the necessity of having a signed permission form from each student before they take the survey.

I look forward to reading the results of your research. The topic is of great interest, and I look forward to new insights. Thank you.

Sincerely,



J Cody Dobson
Principal

Sky View High School

520 South 250 East, Smithfield, Utah 84335
(435) 563-6273 FAX (435) 563-9534



October 28, 2002

To: Jennifer Lance
RE: Questionnaire

Jennifer, this letter is being written to inform you that your questionnaires have been reviewed by Steve Zsiray and myself and cleared.

You have been approved to use the above said questionnaires in three Sky View classrooms. If you have any further questions, we would be happy to help you.

Thank you for your interest in education.

Sincerely,


Dee R. Ashcroft
Principal
Sky View High School

Clair C. Larkin
Assistant Principal

Dee R. Ashcroft
Principal

Lynette A. Riggs
Assistant Principal

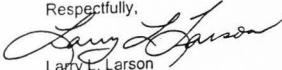
NORTH CACHE 8-9 CENTER

157 West 600 South
Richmond, Utah 84333
Phone 258-2452



By this letter, I wish to certify that I have given permission for Jennifer Lance, a USU graduate student, to conduct research at North Cache 8-9 Center. The teachers have been appropriately contacted and also have agreed to assist.

Respectfully,


Larry L. Larson
Principal

Larry L. Larson - Principal

Maria Nielsen - Vice Principal

Hotmail[®] jolli_jenni@hotmail.com

Inbox | Previous Page

From : Martha Tapia <mtapia@berry.edu>
To : "Jennifer Lance" <jolli_jenni@hotmail.com>
Subject : Re: scoring EII
Date : Wed, 13 Nov 2002 22:36:31 -0500

Dear Jennifer:

Here is the scoring key we talked about over the phone. .

The following items are reversed items. For your analysis, use the formula e.g $it12 = 6 - it12$ to get the correct value.

- 12. Criticism is difficult ...
- 13. I let a problem work ...
- 14. It is too stressful ...
- 16. Having car trouble ...
- 17. Being expected to ...
- 18. I lose control
- 19. Traffic jams ...
- 24. I avoid responsibility ...
- 25. My moods are easily ...
- 34. I tend to procrastinate.

Perhaps by now you have figured out the factors but just in case here they go.

Factor I contains 12 items. These are 1, 2, 7, 5, 20, 6, 4, 15, 35, 3, 26, & 11.

Look at Table 3 and you'll see that the factor loadings are decreasing in Factor I. Then when you get to item 41 the factor loading on Factor II is .60, hence that is the highest loading item on Factor II.

Factor II has 11 items starting with item 41 you go down the list on Table 3 and stops at 13. The items are 41, 40, 29, 22, 21, 39, 37, 38, 23, 36, and 13.

Factor III has 9 items starts with 32 up to 28. The items are 32, 33, 31, 8, 10, 27, 9, 30, and 28.

Then Factor IV has 9 items. Starts with 19 and ends with 34. Look at the factor loadings on each factor and you'll see what I mean. The items are 19, 16, 18, 17, 25, 24, 12, 14, and 34.

If you have done this already please compare it to what I'm sending you.

If you have any other question or need my help for something else please don't hesitate to ask me. And don't forget to let me know how the analysis is going.

Sincerely,

Martha Tapia

At 08:13 PM 11/12/2002 -0700, you wrote:

Dear Dr. Tapia:

I wrote you this last summer requesting to use your EII measure. My data collection is nearly complete and I will need to start scoring the data. I need to know which items belong to what subscale. There is a partial listing in your 2001 article on *Measuring Emotional Intelligence*. Could you please send me a list of item to subscale matches? I would appreciate your prompt help! My research is coming along smoothly. Hopefully, in a few weeks I can share my results and discussion with you.

Sincerely,

Jennifer Lance, student researcher, USU

Tired of spam? Get advanced junk mail protection with MSN 8.