

LET'S TALK ABOUT FEELINGS:
EMOTIONAL INTELLIGENCE AND AGGRESSION PREDICT JUVENILE
OFFENSE

by

Hannah Jean Moskat & Katelyn Marie Sorensen

A thesis submitted in partial fulfillment of the requirements
for graduation with Honors in Psychology.

Whitman College
2012

Certificate of Approval

This is to certify that the accompanying thesis by Hannah Jean Moskat and Katelyn Marie Sorensen has been accepted in partial fulfillment of the requirements for graduation with Honors in Psychology.

Melissa Clearfield

Whitman College
May 9, 2012

Table of Contents

1. Abstract	1
2. Introduction.....	2
3. Method	11
3.1. Participants	11
3.2. Materials	11
3.3. Design	12
3.4. Procedure	12
4. Results.....	13
5. Discussion.....	14
6. References.....	19
7. Appendix A (Bar-On)	30
8. Appendix B (Aggression Questionnaire).....	32
9. Appendix C (Demographic Questionnaire)	34

List of Illustrations

1. Table 1: T-test for Components of Aggression Compared to Physical Aggression	24
2. Figure 1: Average aggression scores of sample compared to national average	25
3. Figure 2: Average EI scores of sample compared to national average.....	26
4. Figure 3: Aggression broken into individual component scores.	27
5. Figure 4: Emotional intelligence broken into individual component scores	28
6. Figure 5: EI scores by offense type broken into components.....	29

Abstract

Emotional intelligence (EI) is a concept based on understanding one's own emotions and the emotions of others. Because aggression is often categorized by hurtful and destructive behavior towards others, it seems to oppose the empathetic nature of EI. In this study, we sought to test this relationship directly in the context of juvenile delinquency. We predicted that EI would be negatively correlated with aggression, and also relate to sex and offense type. Participants were ten detained youth at the Walla Walla Juvenile Justice Center and were tested using the Bar-On EQI: YV (S) and the Aggression Questionnaire to measure their emotional intelligence and aggression levels. We found that lower emotional intelligence levels were correlated with higher aggression scores, and that participants scored the highest in physical aggression. Findings are discussed in terms of teaching EI in rehabilitation programs for youth offenders.

Let's Talk About Feelings: Emotional Intelligence and Aggression Predict Juvenile Offense

Adolescence is wrought with confusion, anger, awkwardness and a spectrum of intense emotion. Hormonal development is at a peak during puberty, beginning at around age nine for girls and ten for boys (Ramirez, 2002). Gonadal and adrenal androgen hormone levels, commonly correlated with aggression, show the most dramatic increase at this time. Males experience several small spikes in their testosterone levels throughout their lives; however, the most severe spike, a 20-30-fold increase, occurs during puberty. Estrogen production for females begins slowly after birth, but it is also puberty when they experience a dramatic seven-fold increase. Afterwards fluctuation occurs in correspondence with the menstrual cycle (Reiter & Root, 1975). These hormonal changes, especially at the very beginning of puberty, cause adolescent behavior to become impulsive and self-serving (Steinberg & Cauffman, 1996).

The brain is also still growing and maturing, causing neural pathways to be less clear-cut and more volatile (Beckman, 2004). In fact, the most important neurological developments that occur during adolescence involve structures related to regulation of emotion, long-term planning, impulse control, and risk evaluation (Steinberg & Scott, 2003). Specifically, a fully developed frontal lobe acts as a regulatory system for impulsive or emotional responses (Beckman, 2004). Because the frontal lobe is not fully developed in adolescents, their higher functions and impulse control are much less efficient. Additionally, the process of brain maturation lasts until late adolescence or early adulthood; even at age 20, brain scans reveal immaturities in areas correlated with decision-making capabilities (Beckman, 2004).

These physiological changes are related to several specific psychological processes, including egocentrism and identity formation (Steinberg & Cauffman, 1996). Egocentrism is caused by a personal fable emphasizing self-importance, the conception of an invisible audience and a feeling of 'it will never happen to me.' This combination of factors ultimately leads to an exaggerated sense of invincibility; it is not an incorrect judgment, but an inability to recognize a situation calling for judgment. In essence, egocentrism contributes to an adolescent's inability to recognize their behavior as risky (Greene *et al.*, 2000).

Maturity of judgment can also be based on one's own coherent sense of identity (Steinberg & Cauffman, 1996). The more stable, confident and self-aware an individual is, the more able they will be to make mature, difficult decisions. Adolescence is the time in which an individual's identity is the most flexible, allowing for experimentation and exploration, as well as degrading the maturity of adolescent judgment. This period of flexibility has been deemed the psychosocial moratorium and has been shown to last until the late teens or early twenties (Erikson, 1956). In fact, it is usually between the ages of 18 and 21, near the end of adolescence, when identities finally begin to coalesce (Steinberg & Cauffman, 1996).

The adolescent experience is so different than that of an adult that even when a juvenile has the same intelligence and cognitive levels as an adult, their reasoning, decisions and reactions will most likely be different based on their psychosocial immaturity (Steinberg & Scott, 2003). One key psychosocial factor is susceptibility to peer influences. Gardner and Steinberg (2005) assessed the relationship between individuals and risk in three different ways to demonstrate the importance of peer

influence. They measured actual risk taking through a video game simulation, risk preference (whether they believed the benefits of a given circumstance to outweigh the costs), and finally, risky decision making with a questionnaire. They found that across three different age groups they were testing (adolescents: between 13 and 16, youth: between 18 and 22, and adults: 24 or older) and across all measures, the presence of peers led to more risky behavior. Specific to the video game condition, participants took significantly more risks when in the presence of peers. While peer influence was apparent across all age groups, it was more significant in adolescent and youth populations (Gardner & Steinberg, 2005).

In addition to peer influence, several other factors contribute to the poor decision making capabilities of adolescents. Through a risk preference measure, Gardner & Steinberg (2005) demonstrated the effect of age on risk perception, showing a significant positive correlation between age and ability to weigh the costs and benefits of a potential risk, meaning adolescents are less able to recognize their behavior as risky. Future time perspective and foresight are important concepts based on planning and thinking about the consequences of an action that also contribute to decision-making skill. Both future time perspective and foresight abilities have been correlated with life success and are also demonstrated to be less developed and more susceptible to outside influence in adolescence (Trommsdorff, Lamm & Schmidt, 1979). Additionally, self-management abilities further distinguish the decision-making capabilities of adolescents from that of adults (Steinberg & Scott, 2003). Self-management, which is tied to the concept of self-efficacy, develops over time, therefore placing adolescents lower on the spectrum of ability (Bandura *et al.*, 2003). Self-regulation has been correlated significantly with both

general psychosocial functioning as well as prosocial behavior and a smaller likelihood of delinquency within an adolescent population (Bandura *et al.*, 2003). The interaction of all these psychosocial factors as well as the physiological changes documented above contributes to the decision-making deficiencies seen in delinquent adolescent behavior.

Indeed, adolescents do not always make the wisest decisions, leading to a high rate of delinquency particularly during these youthful years. 44% of those who are arrested for crimes such as violence, arson and high-value theft are youth between the ages of 10 and 20 (Maguire & Pastore, 1997). The FBI Uniform Crime Report found in 2010, that 22.5% of arrests for property crimes and 13.7% of violent crimes were committed by persons less than 18 years of age (Federal Bureau of Investigation, 2010).

Despite the prevalence of youth offending, only 20% of adolescents who admit to being repeat offenders have ever been arrested even one time (Henggeler, 1989). Based on this statistic, it may seem that many adolescents are committing crime after crime without being caught. However, this may not necessarily be the case. In fact, only 1.3% of youths who are arrested at least once commit another violent offense. This means that adolescent crime is prevalent among almost all youth, not highly prevalent among a small population (Snyder, 1997).

On the other hand, there are those adolescents that do become routine offenders. These youth show some consistent characteristics. Repeat juvenile offenders tend to have classifiable mental disorders (Shelton, 2000), and boys in particular are more likely than girls to engage in all delinquent behavior and tend to be more physically aggressive than girls (Farrell *et al.*, 2000). Furthermore, additional characteristics have been shown to influence recidivism (Mennis & Harris, 2011). In a study that investigated

over 7,000 male juvenile offenders, results yielded a particular tendency towards recidivism for drug offenders. Repeat offending was also influenced by the adolescent's ethnicity, the criminality of their parents (Nijhof *et al.*, 2009) and their prior history with the juvenile justice system. Interestingly, there was even an influence of spatial contagions, meaning that recidivism was influenced by living closer to other delinquents (Mennis & Harris, 2011).

Above and beyond most factors that have been shown to influence delinquency, measures of aggression are key predictors of juvenile offending. In his work with aggression, Eron used the operational definition of aggression as "an act that injures or irritates another person" (1987, p. 435). Aggression is primarily a learned behavior and it can be learned from a variety of different sources and in different ways. There are four dimensions to the learning environment of a child: instigation, reinforcement, identification and sociocultural norms. Each of these dimensions plays a specific role in how a child learns to express aggression. The first, instigation, is when a child is in a frustrating condition such as being rejected by their parents, and their drive increases along with their aggression. Reinforcement describes the nature of the parental response to a child acting aggressively; primarily, when a child is rewarded for aggressive behaviors, they will likely act that way again. Identification is both the adolescents internalizing the standards of their parents and also how they act out the behavior they see from their parents and other adults. This can be especially detrimental when those parents or adults act aggressively. Lastly, the norms of a youth's society and culture may be more or less accepting of aggressive attitudes, causing certain actions to be seen as more acceptable (Eron, 1987).

There are two overarching forms of aggression: indirect and direct (Card *et al.*, 2008). Though their definitions do overlap, indirect aggression includes behaviors such as gossiping and exclusion without direct confrontation; behaviors that harm through rejection. Two types of indirect aggression are social and relational aggression. Social aggression comes from a child's desire to be accepted in a group, but accomplishing this in a way that attacks or rejects others, perhaps by spreading a rumor about them. Relational aggression is when a child harms others by manipulating their peers through exclusion from the group and other means. Direct aggression includes both physical and verbal aggression, particularly direct attacks on personal well-being. Both direct and indirect aggression are intercorrelated and associated with various factors of youth maladjustment (Card *et al.*, 2008).

Physical aggression, a type of direct aggression, has been shown to perpetuate itself, particularly when it starts during the elementary school years (Broidy *et al.*, 2003). Physical aggression during this time increases the risk that this physical violence, in addition to other nonviolent delinquency, will continue into the adolescent years. In this particular case the results were specific to males, though boys and girls experience similar development of physical aggression (Broidy *et al.*, 2003).

The difference between boys and girls plays a large role in measured aggression levels within the juvenile delinquent population. For example, measures of forced sexual contact incidences between sexes in groups of high, medium, or low risk children showed evidence pointing to the role that one's biological sex plays in aggression (Slotboom *et al.*, 2011). High risk participants (who were juvenile offenders) had the highest rates of sexual aggression and were the only group that showed a significantly higher amount of

male sexual aggression than female. In addition, the only predictor of sexual aggression for girls was their response to their beliefs about sexual behavior, while for the boys, the most important predictor of sexual aggression was being a victim of sexual abuse. In fact, males who were sexually abused had a five to seven times higher chance of reporting sexual aggression than males who were not abused (Slotboom *et al.*, 2011). Although this study focused particularly on sexual aggression, it demonstrates the perpetuating nature of aggression and offending, how strong of a relationship aggression has with delinquency and the importance of sex within aggressive offending.

Aggression is not only related to offending, but may also relate to emotional deficits that further complete the youth offender profile. In a sample of 88 detained adolescents (average age of 15.57), self-reported aggression was accurately predicted through measures of callous-unemotional traits, described as a lack of guilt and empathy, or a poverty in emotional expression. These measures also predicted self-reported violent delinquency and violent arrest records. Through a task that measured reactions to distressing stimuli, results demonstrated that deficits in response to visual depictions of distress correlated with the highest levels of aggression and of violent delinquency (Kimonis *et al.*, 2007). These callous-unemotional traits indicate a potential for another quality worth noting in the study of juvenile delinquency.

Emotional intelligence (EI) provides an additional avenue of exploration for juvenile offending. EI is a relatively new construct, but its roots can be seen as early as the 1920s in E.L. Thorndike's concept of social intelligence, "the ability to perceive one's own and others' internal states" (Mayer & Salovey, 1993, p.435). Social intelligence, however, focused too closely on the manipulation of inner states, so Salovey and Mayer

came up with a more developed concept called emotional intelligence in the 1980s (Grewal & Salovey, 2006). Their EI concept pertains more to understanding emotions and is defined as “the ability to monitor one’s own and other’s feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p.189). Since the 1980s, however, it has been defined and redefined so many times it is impossible to limit the definition of emotional intelligence to one specific phrase. Essentially, it is a concept based on understanding emotions as critical. Emotional intelligence acts as a more pervasive and accurate predictor of success in life than traditional intelligence constructs (Qualter *et al.*, 2007).

In fact, 80% of life successes can be attributed to emotional intelligence (Goleman, 1995). High emotional intelligence levels have been correlated with a myriad of benefits and positive life outcomes. Advantages include high levels of happiness, health, well-being, better academic performance and an increased ability to cope with change (Qualter *et al.*, 2007; Salami, 2011). The capacity to understand and decipher emotions is correlated with choosing and succeeding in a meaningful line of work, as well as with success in building lasting and significant relationships (Grewal & Salovey, 2006).

This is not just true of adults; adolescents who have more advanced emotional abilities show lower stress levels, fewer signs of aggression, and demonstrate a smaller likelihood of involvement with drugs and alcohol (Qualter *et al.*, 2007). Abraham (1999) contended that those individuals who have higher levels of emotional intelligence have a stronger ability to empathize, generally leading to their ability to conform better to organizational requirements.

Just as high levels of emotional intelligence are beneficial, low levels create recognizable deficits. Importantly, however, the problems caused by low levels of EI are not just the absence of those beneficial traits exemplified by those with high EI. Low levels of EI have been correlated with some forms of mental illness, including depression, borderline personality disorder and most notably Alexithymia (a difficulty processing emotional information; Grewal & Salovey, 2006). Those with low EI levels also tend to have a hard time understanding situations from the perspective of others and therefore tend to be less empathetic (Henley & Long, 1999).

Emotional intelligence, then, seems deeply related to aggression and offending, however, this relationship has not been tested in depth. The primary purpose of this project was to test this relationship. We predicted that emotional intelligence would relate to offending because individuals who have a higher emotional intelligence should be more able to follow the rules set by society, therefore being less likely to commit crimes. Those with high levels also tend to be more able to moderate their emotions and respond less easily to impulse. On the other hand, low levels should cause individuals to be more prone to risky behavior. They also may be less able to recognize that their behavior is risky, or that it has implications for others. We focused on whether this divorce from the reality of emotion leads individuals with low EI levels to have higher levels of aggression.

The primary purpose of this study was to further explore the relationship between juvenile offense, aggression, and emotional intelligence. Because pre-existing studies have found consistently higher emotional intelligence in females (Mayer *et al.*, 2000; Pullman, 2009) and higher aggression in males (Farrell *et al.*, 2000), a further purpose of

this study was to explore emotional intelligence and aggression in relation to sex differences. Also, we were curious if emotional intelligence and aggression levels would demonstrate patterns based on the type of offenses the juvenile had committed, so this was the final piece of our study. We predicted that emotional intelligence would be negatively correlated with aggression; that males would show higher aggression levels than females; that females would show higher emotional intelligence than males; and finally, that offense type would be stratified by sex and emotional intelligence.

Method

Participants

Participants were two females and eight males ranging in age from 12 to 17 being detained at the Juvenile Justice Center in Walla Walla, WA. All participants had been convicted of at least one crime. The spectrum of offenses committed leading to the current detainment of our participants was a total of five person crimes (defined as: assault, rape, molestation and weapons charges), four property crimes (theft, burglary, motor vehicle theft, arson and malicious mischief), two drug crimes (possession, delivery and manufacturing) and three status crimes (truancy and at risk youth petitions).

Materials

To measure aggression, we used the Aggression Questionnaire which is a self-report measure and consists of 29 items (Buss & Perry, 1992; see Appendix A). It is based on the Hostility Inventory developed by Buss and Durkee (1957). Participants responded to statements such as “once in a while I can’t control the urge to strike another person,” on a five point likert scale where 1 = “extremely uncharacteristic of me,” 2 = “somewhat uncharacteristic of me,” 3 = “neither uncharacteristic nor characteristic of

me,” 4 = “somewhat characteristic of me,” and 5 = “extremely characteristic of me.” It has been shown to be reliable for use on adolescents with a total test-retest reliability of .80 (Morren & Meesters, 2002; Buss & Perry, 1992).

To measure emotional intelligence we used the Bar-On Emotional Quotient Inventory: Youth Version, Short Form developed by Bar-On (1997; see Appendix B). It is also a self-report measure and consists of 30 items. Participants responded to statements such as “I care what happens to other people” on a four point likert scale where 1 = “not true of me,” 2 = “just a little true of me,” 3 = “pretty much true of me,” and 4 = “very much true of me.”

We also created a survey in order to collect demographic information (see Appendix C). This survey was presented to the parents, asking about the age, sex, previous offenses and offense committed leading to the current detainment of their child. This information was supplemented and corroborated with the Juvenile Justice Center’s system files.

Design

Our study was a 2 x 4 mixed factorial design. Our independent variables were sex and offense type. Sex was a between subjects variable and offense type was a within subjects variable because some participants committed multiple offenses leading to their current detainment. Our dependent variables were emotional intelligence and aggression scores.

Procedure

We went to the Juvenile Justice Center’s visiting hours to arrange consent from the participants’ parents or legal guardians. Then we gave parents the demographic

information survey if they agreed to allow their child to participate. We later met with the adolescents in person and distributed the Bar-On Emotional Quotient Inventory: YV (S) and the Aggression Questionnaire. Testing time was approximately 15 to 25 minutes. No more than one or two participants were tested at the same time. After they completed the measures, we explained the goals of the project to the participants, asked if they had any questions and thanked them for their participation.

Results

Because of a small participant pool, we were restricted to primarily descriptive statistics. Our participants scored an average total of 91.80 on the Aggression Questionnaire out of a possible score of 145. Thus, our participants showed a fairly high level of total aggression when compared to both the total possible score and the national average ($M = 77.80$). The emotional intelligence measure is standardized on a total score range from 65 to 130, with a standard mean score of 100. A score between 90 and 109 is considered an average level of emotional intelligence. Our participants reported a low level of total emotional intelligence, falling below the average range ($M = 89.00$) (See Figures 1 & 2).

A correlational analysis of total aggression by total emotional intelligence revealed a strong negative correlation between these two variables, $r = -.87, p < .05$. Juveniles with higher emotional intelligence scores had lower aggression scores overall. This was consistent with our hypothesis.

In addition to our initial predictions, we analyzed aggression and emotional intelligence by their more specific components. Total aggression was a sum of physical aggression (PA), verbal aggression (VA), anger (A) and hostility (H). A one-way

ANOVA revealed a significant difference between the four subcategories, $F(3, 36) = 9.72, p < .05$. A post-hoc t-test confirmed that physical aggression ($M = 31.00$) was significantly higher than the other three components, $t_{VA}(18) = 4.96, p < .05$; $t_A(18) = 3.16, p < .05$; $t_H(18) = 2.01, p = .06$. Participants reported higher scores in the physical aggression category than any other type of aggression. None of the other relationships between the sub categories were significant (See Table 1 & Figure 3).

Emotional intelligence was also a summation of four component scales: intrapersonal, interpersonal, stress management, and adaptability. Participants standardized mean score for stress management was the highest ($M = 96.70$) but an ANOVA revealed no significant differences between the components, $F(4, 45) = .95, n.s.$ (See Figure 4).

Because we only had two female participants, we could not run inferential statistics for sex differences on any of our outcome measures, including offense type, emotional intelligence and aggression levels.

The highest emotional intelligence levels, across all categorical variables, appeared in the drug related offense condition. When looking at the standardized scores of total emotional intelligence, the lowest levels of EI were found in the property and person offense conditions (See Figure 5). However, because the number of participants and therefore number of offenses was so small, we could not run a statistical test to see if these differences were significant, nor could we test the relationship between offense type and aggression levels.

Discussion

In this study, we explored the relationship between emotional intelligence and aggression levels in juvenile offenders. We predicted that levels of emotional

intelligence would be inversely related to levels of aggression. We were able to demonstrate this relationship in our sample through a strong negative correlation; as emotional intelligence levels increased, aggression levels decreased. This correlation, found with only ten participants, speaks to the strength of this nearly undiscovered relationship.

The further breakdown of the components of aggression lends additional support to the link between aggression and EI. Our participants' scores were significantly higher in physical aggression compared to the other three components (verbal aggression, anger, and hostility). The statements on the Aggression Questionnaire that measured physical aggression include a person's tendency to strike other people, resort to violence, and express their anger through destructive behavior. As opposed to verbal attacks, and feelings of hostility and anger, the manifestation of physical aggression results in concrete repercussions for the perpetrator. Additionally, verbal aggression, hostility and anger are distinct from physical aggression because they seem to involve higher level emotional processing that we would not expect our participants to identify with because they demonstrated low emotional intelligence levels.

Because a variety of literature illustrated the relationship between sex and aggression, and sex and emotional intelligence, we also predicted that males would show higher aggression levels than females, and that females would show higher emotional intelligence than males. Although this hypothesis was not testable because of our small sample, we believe that with a larger group of participants, the sex differences that we predicted would be found.

We were also unable to test our final hypothesis about the stratification of offense type by sex and emotional intelligence levels. However, when graphing our results, we did see the beginnings of a trend towards drug offenders having the highest emotional intelligence levels across all categorical variables. This suggests that drug offenders may have a unique profile worth further inquiry. Additionally, determining whether a pattern exists between type of offense, emotional intelligence and aggression could provide insight into the profile of other offenders.

While most concepts that are considered intelligences are believed to be static and cannot be increased, this is not the case with emotional intelligence. Research demonstrates genetic influences and early childhood experiences as determining factors for later emotional intelligence levels, specifically through maternal expressivity and infant/child temperament (Cassidy, 1994). However, this does not preclude its ability to change later in life. Factors consistently correlated with early emotional intelligence development include neurological inhibitory system maturation, child temperament, emotional vulnerability and parental influences on emotional vocabulary development (Qualter *et al.*, 2007). Because these factors are both biological and social, they demonstrate how emotional intelligence can be inherited, but is also malleable.

In order to teach and increase emotional intelligence, it is essential to understand and in turn address the specific issues that are faced by those who lack it. Being able to handle stressful situations and understand alternative perspectives and viewpoints are areas in which individuals with low emotional intelligence commonly struggle. Important processes that can be taught to moderate these situations are compassion and self-control (Henley & Long, 1999). In a study of Turkish university

students, an emotional intelligence skill training program was implemented and after 12 one and a half hour sessions, the training was demonstrated to have both a significant short and long term positive effect on emotional intelligence and even reduced anger levels (Yilmaz, 2009).

The flexibility of emotional intelligence and its ability to be taught makes it especially useful to the rehabilitation effort of juvenile delinquents (Yilmaz, 2009; Henley & Long 1999). Therefore, based on our results and the supporting literature, emotional intelligence interventions would likely reduce aggression levels. Aggressive youth struggle to control their impulses to physically or verbally attack others (Card *et al.*, 2008). Because of the documented relationship found between aggression and offending, if aggression levels could be reduced, it would lead to an overall decrease in delinquent behavior (Slotboom *et al.*, 2011).

While our study supported our first hypothesis that emotional intelligence would be inversely related to aggression levels, there were several limitations that, if addressed, could enhance further research on this topic. Walla Walla is such a small community, therefore, the capacity of the Juvenile Justice Center (JJC) made it difficult to amass a large participant pool. Also, even though we had the support of the JJC to test their entire population, we still had to obtain parental consent before distributing our measures. Because parents were only accessible during the few minutes before visiting hours and not all parents came to visitation, it was difficult to request consent. This greatly reduced the already small population that was accessible to us. If we had more time to conduct research and better access to parents, we would have been able to run more participants and test our other hypotheses.

Ultimately, our findings suggest the importance of developing the relationship between emotional intelligence and aggression. What makes this research so valuable is the unique ability of emotional intelligence to be taught. An increase in emotional intelligence would have its own effect on juveniles' propensity to offend: Individuals who have a higher emotional intelligence would be more able to conform to preconceived societal norms, therefore being less aggressive and less likely to break the law. Further research in this area will therefore be extremely important and could have lasting positive implications for the rehabilitation of juvenile delinquent populations.

References

- Abraham, R. (1999). Emotional intelligence in organizations: A conceptualization. *Genetic, Social, and General Psychology Monographs*, 125, 209-224.
- Bandura, A., Caprara, G. V., Barbaranelli, C., Gerbino, M. & Pastorelli, C. (2003). Role of affective self-regulatory efficacy in diverse spheres of psychosocial functioning. *Child Development*, 74(3), 769-782.
- Bar-On, R. (1997). Emotional Quotient Inventory (EQ-i): A test of emotional intelligence. Toronto, Canada: Multi-Health Systems.
- Beckman, M. (2004). Crime, culpability, and the adolescent brain. *Science*, 305, 596-599.
- Broidy, L. M., Nagin, D. S., Tremblay, R. E., Bates, J. E., Brame, B., Dodge, K. A., & ... Vitaro, F. (2003). Developmental trajectories of childhood disruptive behaviors and adolescent delinquency: A six-site, cross-national study. *Developmental Psychology*, 39(2), 222-245. doi:10.1037/0012-1649.39.2.222
- Buss, A.H., & Perry, M. (1992). The Aggression Questionnaire. *Journal of Personality and Social Psychology*, 63, 452-459.
- Card, N. A., Stucky, B. D., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. *Child Development*, 79(5), 1185-1229. doi:10.1111/j.1467-8624.2008.01184.x
- Cassidy, J. (1994). Emotional regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, 59(2/3), 228-249.
- Cauffman, E. & Steinberg, L. (2000). (Im)maturity of judgment in adolescence: Why

adolescents may be less culpable than adults. *Behavioral Sciences and the Law*, 18, 741-760.

Erikson, E. (1956). The problem of ego identity. *Journal of the American Psychoanalytic Association*, 4, 56-121.

Eron, L. D. (1987). The development of aggressive behavior from the perspective of a developing behaviorism. *American Psychologist*, 42(5), 435-442.

doi:10.1037/0003-066X.42.5.435

Farrell, A. D., Kung, E. M., White, K. S., & Valois, R. F. (2000). The structure of self-reported aggression, drug use, and delinquent behaviors during early adolescence. *Journal Of Clinical Child Psychology*, 29(2), 282-292.

doi:10.1207/S15374424jccp2902_13

Federal Bureau of Investigation. (2010). *FBI Uniform Crime Report*. Retrieved November 28, 2011, from <http://www.fbi.gov/about-us/cjis/ucr/ucr>.

Gardner, M. & Steinberg, L. (2005). Peer influence on risk taking, risk preference, and risky decision making in adolescence and adulthood: An experimental study. *Developmental Psychology*, 41(4), 625-635.

Goleman, D. (1995). *Emotional Intelligence*. New York: Bantam Books.

Greene, K., Krcmar, M., Walters, L. H., Rubin, D. L., Hale, J. & Hale, L. (2000).

Targeting adolescent risk-taking behaviors: the contributions of egocentrism and sensation-seeking. *Journal of Adolescence*, 23, 439-461.

Grewal, D. & Salovey, P. (2006). Benefits of emotional intelligence. In M.

Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.). *A life worth living:*

Contributions to positive psychology (pp. 104-115). New York: Gallup. Inc.

- Harrod, N. & Scheer, S. (2005). An exploration of adolescent emotional intelligence in relation to demographic characteristics. *Adolescence*, 40(159), 503-512.
- Henggeler, S. W. (1989). *Delinquency in adolescence*. Newbury Park, CA: Sage.
- Henley, M. & Long, N. J. (1999). Teaching emotional intelligence to impulsive-aggressive youth. *Reclaiming Children and Youth*, 7(4), 224-229.
- Kimonis, E., Frick, P., Munoz, L. & Aucoin, K. (2007). Can a laboratory measure of emotional processing enhance the statistical prediction of aggression and delinquency in detained adolescents with callous-unemotional traits? *Journal of Abnormal Child Psychology*, 35, 773-785. doi: 10.1007/s10802-007-9136-1
- Maguire, K., and Pastore, A. L. (1997). *Sourcebook of criminal justice statistics, 1997*. Washington, DC: U.S. Government Print Office.
- Mayer, J. D., Caruso, D. R. & Salovey, P. (2000). Selecting a measure of emotional intelligence: The case for ability scales. In R. Bar-On & J. D. A. Parker (Eds.). *The handbook of emotional intelligence theory, development, assessment, and application as home, school, and in the workplace* (pp. 320-342). San Francisco: Jossey-Bass.
- Mayer, J. D. & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, 17, 433-442.
- Mennis, J., & Harris, P. (2011). Contagion and repeat offending among urban juvenile delinquents. *Journal Of Adolescence*, 34(5), 951-963. doi: 10.1016/j/adolescence.2010.12.001

- Nijhof, K. S., de Kemp, R. T., & Engels, R. E. (2009). Frequency and seriousness of parental offending and their impact on juvenile offending. *Journal Of Adolescence*, 32(4), 893-908. doi:10.1016/j.adolescence.2008.10.005
- Pullmann, M. D. (2009). Predictors of criminal charges for youth in public mental health during the transition to adulthood. *Journal of Child and Family Studies*, 19, 483-491.
- Qualter, P., Gardner, K. J. & Whiteley, H.E. (2007). Emotional intelligence: Review of research and educational implications. *Pastoral Care*, 11-20.
- Ramirez, J. M. (2002). Hormones and aggression in childhood and adolescence. *Department of Psychobiology and Institute for Biofunctional Studies, Universidad Complutense Madrid. Madrid, Spain.*
- Reiter, E. O. & Root, A.W. (1975). Hormonal changes of adolescence. *The Medical Clinics of North America*, 59(6), 1289-1304.
- Salami, S.O. (2011). Personality and psychological well-being of adolescence: The moderating role of emotional intelligence. *Social Behavior and Personality*, 39(6), 785-794.
- Salovey, P. & Mayer, J. D. (1990) Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185-211.
- Shelton, D. (2000). Emotional disorders in young offenders. *Journal of Nursing Scholarship*, 33(3), 259-63. doi:10.1111/j.1547-5069.2001.00259.x
- Slotboom, A., Hendriks, J., & Verbruggen, J. (2011). Contrasting adolescent female and male sexual aggression: A self-report study on prevalence and predictors of

sexual aggression. *Journal Of Sexual Aggression*, 17(1), 15-33.

doi:10.1080/13552600.2010.544413

- Snyder, Howard N. (1997). *Serious, violent and chronic juvenile offenders: An assessment of the extent of and trends in officially-recognized serious criminal behavior in a delinquent population*. Pittsburgh, PA: National Center for Juvenile Justice.
- Steinberg, L. & Cauffman, E. (1996). Maturity of judgment in adolescence: Psychosocial factors in adolescent decision making. *Law and Human Behavior*, 20, 249-272.
- Steinberg, L. & Scott, E. S. (2003). Less guilty by reason of adolescence: Developmental immaturity, diminished responsibility, and the juvenile death penalty. *American Psychologist*, 58(12), 1009-1018.
- Trommsdorff, G., Lamm, H. & Schmidt, R. W. (1979). A longitudinal study of adolescents' future orientation (time perspective). *Journal of Youth and Adolescence*, 8(2), 131-147.
- Yilmaz, M. (2009). The effects of an emotional intelligence skills training program on the consistent anger levels of Turkish university students. *Social Behavior and Personality*, 37(4), 565-576.

Table 1

T-test for Components of Aggression Compared to Physical Aggression

Component	t	df	Sig. (2-tailed)	Mean	SD
Verbal Aggression	4.96	18	0.00	15.70	5.50
Anger	3.16	18	0.005	20.30	7.07
Hostility	2.01	18	0.06	24.80	5.49

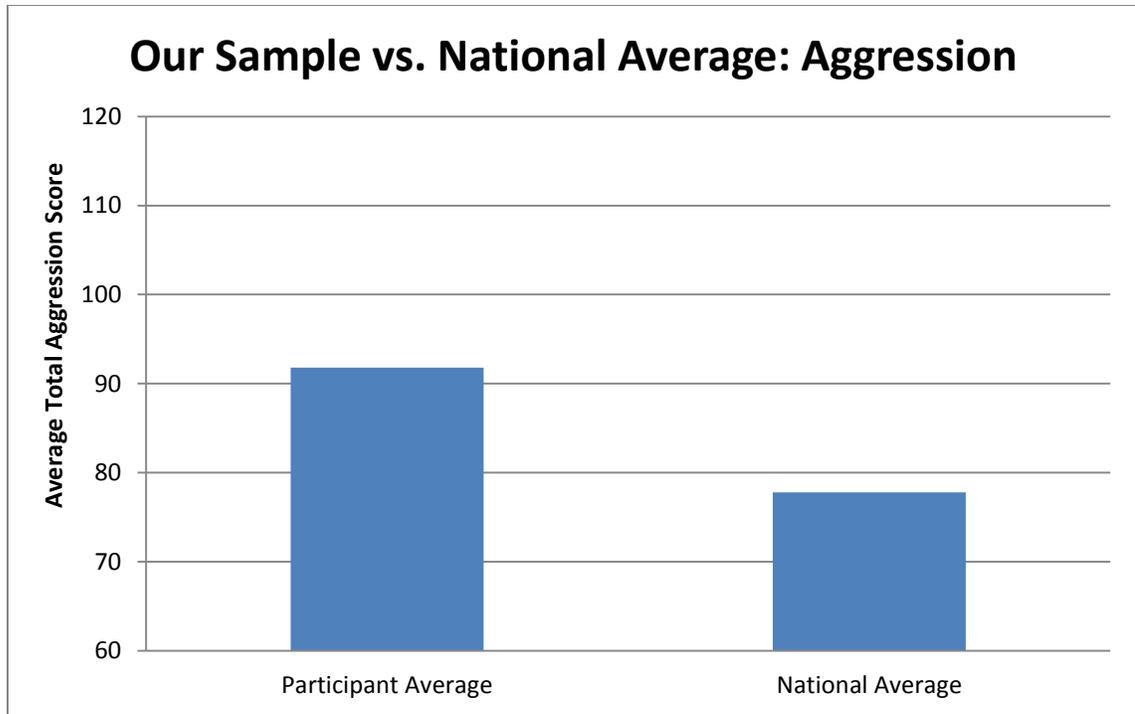


Figure 1. Average total aggression scores for our sample compared to the national average.

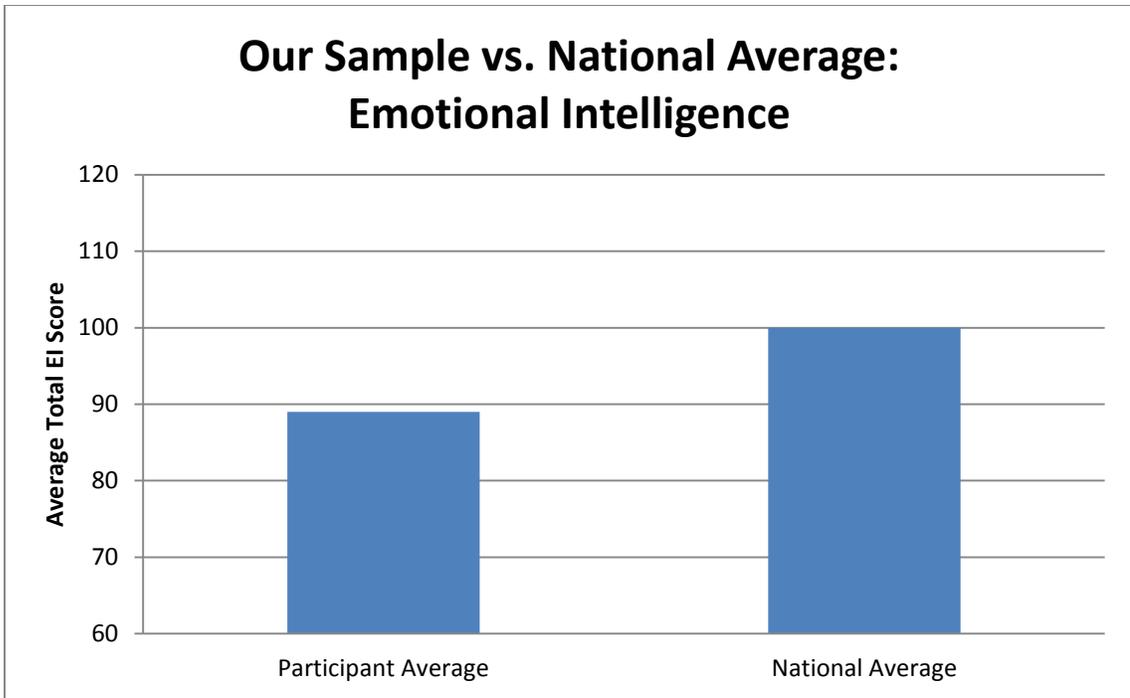


Figure 2. Average total emotional intelligence scores for our sample compared to the national average.

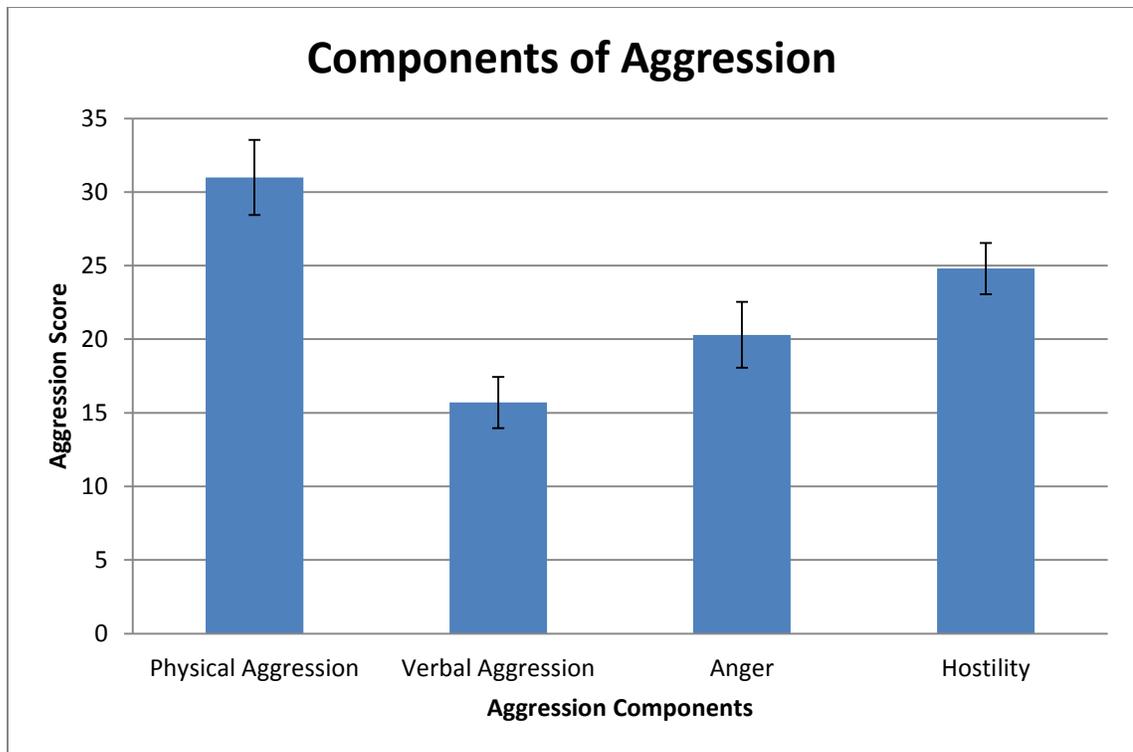


Figure 3. Aggression broken into individual component scores.

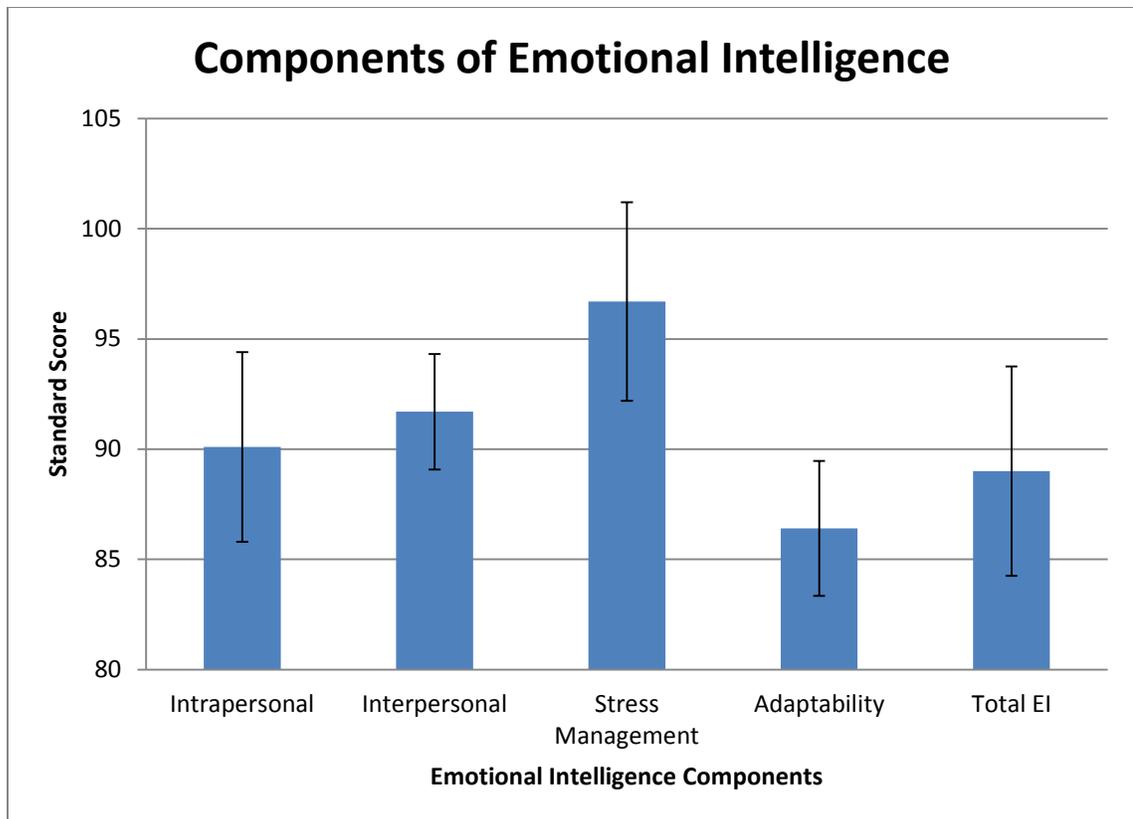


Figure 4. Emotional intelligence broken into individual component scores.

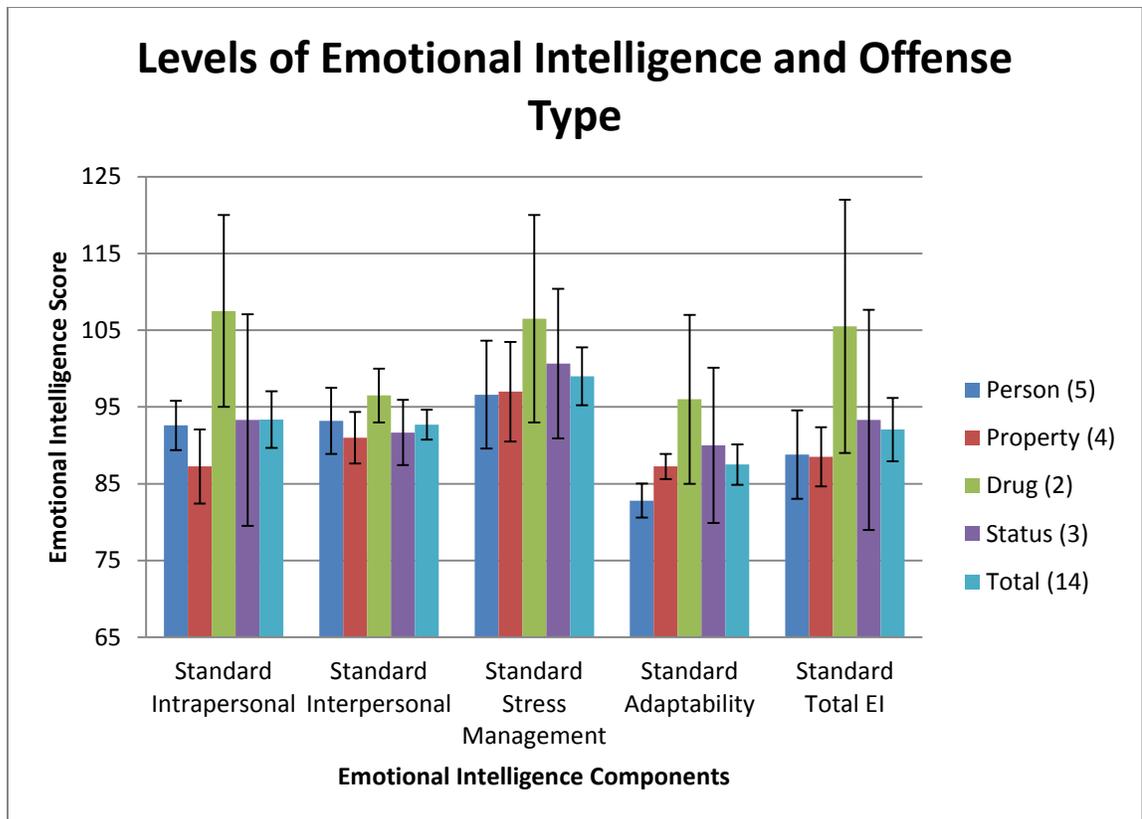


Figure 5. Standard emotional intelligence scores by offense type broken into components of EI.

Appendix A

Aggression Questionnaire (Buss & Perry, 1992)

Instructions:

Using the 5-point scale shown below, indicate how uncharacteristic or characteristic each of the following statements is in describing you. Place your rating in the box to the right of the statement.

1 = extremely uncharacteristic of me

2 = somewhat uncharacteristic of me

3 = neither uncharacteristic nor characteristic of me

4 = somewhat characteristic of me

5 = extremely characteristic of me

1. Some of my friends think I am a hothead _____

2. If I have to resort to violence to protect my rights, I will. _____

3. When people are especially nice to me, I wonder what they want. _____

4. I tell my friends openly when I disagree with them. _____

5. I have become so mad that I have broken things. _____

6. I can't help getting into arguments when people disagree with me. _____

7. I wonder why sometimes I feel so bitter about things. _____

8. Once in a while, I can't control the urge to strike another person. _____

9. I am an even-tempered person. _____

10. I am suspicious of overly friendly strangers. _____

11. I have threatened people I know. _____

12. I flare up quickly but get over it quickly. _____

13. Given enough provocation, I may hit another person. _____

14. When people annoy me, I may tell them what I think of them. _____
15. I am sometimes eaten up with jealousy. _____
16. I can think of no good reason for ever hitting a person. _____
17. At times I feel I have gotten a raw deal out of life. _____
18. I have trouble controlling my temper. _____
19. When frustrated, I let my irritation show. _____
20. I sometimes feel that people are laughing at me behind my back. _____
21. I often find myself disagreeing with people. _____
22. If somebody hits me, I hit back. _____
23. I sometimes feel like a powder keg ready to explode. _____
24. Other people always seem to get the breaks. _____
25. There are people who pushed me so far that we came to blows. _____
26. I know that "friends" talk about me behind my back. _____
27. My friends say that I'm somewhat argumentative. _____
28. Sometimes I fly off the handle for no good reason. _____
29. I get into fights a little more than the average person. _____

Appendix B Bar-On EQ-i:YV(s)

By Rueven Bar-on, Ph.D. & James D.A. Parker Ph.D.

Name: _____ Gender: Male Female (circle one)

Birthdate: ____/____/____
(month, day, year)

Today's Date: ____/____/____
(month, day, year)

Instructions: Read each sentence and choose the answer that best describes you. There are FOUR possible answers. 1 = Not True of Me (Never, Seldom); 2 = Just a Little True of Me (Sometimes); 3 = Pretty Much True of Me (Often); and 4 = Very Much True of Me (Very Often). Tell us how you feel, think, or act MOST OF THE TIME IN MOST PLACES. Choose only ONE answer for each sentence and circle the number that matches your answer. For example, if your answer is "Just a Little True of Me (Sometimes)," you would circle the number 2 on the same line as the sentence. This is not a test; there are no "good" or "bad" answers. Please circle an answer for every sentence.

	Not True of Me (Never, Seldom)	Just a Little True of Me (Sometimes)	Pretty Much True of Me (Often)	Very Much True of Me (Very Often)
1. I care what happens to other people.	1	2	3	4
2. It is easy to tell people how I feel.	1	2	3	4
3. I like everyone I meet.	1	2	3	4
4. I am able to respect others.	1	2	3	4
5. I get too upset about things.	1	2	3	4
6. I can talk easily about my feelings.	1	2	3	4
7. I have good thoughts about everyone.	1	2	3	4
8. I fight with people.	1	2	3	4
9. I have a temper.	1	2	3	4
10. I can understand hard questions.	1	2	3	4
11. Nothing bothers me.	1	2	3	4
12. It is hard to talk about my deep feelings	1	2	3	4
13. I can come up with good answers to hard questions.	1	2	3	4
14. I can easily describe my feelings	1	2	3	4
15. I must tell the truth.	1	2	3	4

Items continued on back...

Bar-On EQ-i:YV(s)

By Rueven Bar-on, Ph.D. & James D.A. Parker Ph.D.

Read each sentence and choose the answer that best describes you. Please circle only one answer for every question.	Not True of Me (Never, Seldom)	Just a Little True of Me (Sometimes)	Pretty Much True of Me (Often)	Very Much True of Me (Very Often)
16. I can come up with many ways of answering a hard question when I want to.	1	2	3	4
17. I get angry easily.	1	2	3	4
18. I like doing things for others.	1	2	3	4
19. I can easily use different ways of solving problems.	1	2	3	4
20. I think I am the best in everything I do.	1	2	3	4
21. It is easy for me to tell people what I feel.	1	2	3	4
22. When answering hard questions, I try to think of many solutions.	1	2	3	4
23. I feel bad when other people have their feelings hurt.	1	2	3	4
24. I am good at solving problems.	1	2	3	4
25. I do not have bad days.	1	2	3	4
26. I have trouble telling others about my feelings.	1	2	3	4
27. I get upset easily.	1	2	3	4
28. I can tell when one of my close friends is unhappy.	1	2	3	4
29. When I get angry, I act without thinking.	1	2	3	4
30. I know when people are upset, even when they say nothing.	1	2	3	4

Thank you for completing the questionnaire.

Appendix C

Demographic Information Questionnaire

*Please report the following information about **your child** to the best of your ability. All information will remain confidential; no names will be connected to our data.*

Child's Name:

Offense committed leading to current detainment:

Previous offenses committed:

Sex:

Ethnicity:

Has your child ever been diagnosed with a learning disability, emotional disorder or mental illness? If so, which one?