# A STUDY OF EMOTIONAL EMPATHY AND DELINQUENCY

Shazia Ashraf, PhD Shazia Khalid, PhD Firoza Ahmed, PhD

Psychology Department, Preston University, Islamabad

#### **Abstract**

In their study of personality and delinquency, psychologists have tried to understand the developmental trajectories leading to an antisocial youth. It has been noted that affective arousal in response to others in distress can promote interpersonal responsibility and inhibit harmful acts. It follows that deficits in the capacity to emotionally empathize would be related with delinquent acts, which may have harmful consequences for others. The present study investigated the relation of emotional empathy with delinquency in adolescent boys. The study was conducted on a sample of 125 adolescent boys, with an average age of 16.9 years, S.D. = 1.8 (ages ranging from 16 to 18 years). Participants were administered the Emotional Empathy Scale (EES) (Ashraf, 2004) and the Urdu translated version of Self-Reported Delinquency Scale (SRDSG). which was originally developed by Gibson (1971). Following hypotheses were tested: (a) Emotional empathy will be negatively correlated with delinquency, and (b) EES subscales will be negatively correlated with SRDSG scale. Consistent with expectation, a significant negative correlation coefficient of -.28 (p< .001) was obtained between the scales of EES and SRDSG. In addition, all EES subscales were also found to be significantly and inversely correlated with delinquency (ranging from r = .21to -.29, p <.001). The negative relation found between the two scales supports the notion that affective empathy inhibits delinquent actions towards others.

Keywords: Deliquency, Emotional Empathy, Youth Behavior

### Introduction

Emotional empathy is thought to promote the ability to attend to and feel the emotional needs of others (Hoffman, 1975, 2000). Empathy plays the role of an emotional connection, which helps to effectively form a bond between the emotional states of one individual with another. It is believed to motivate other-oriented behavior (Batson, 1991). Thus, the idea that empathy is a major determinant of prosocial orientation, and plays a critical role in human bonding has been widely empirically accepted among psychologists (see Eisenberg, Eggum, Giunta, 2010; Eisenberg, Guthrie, Cumberland et al., 2002; Eisenberg, Zhou, & Koller, 2001; Underwood & Moore, 1982).

As opposed to prosocial behaviors, delinquency is characterized by wrongful acts that may have injurious effects for others, both physical and mental. Deficits in empathy are expected to be related with aggressive and antisocial acts, such as delinquency, towards others (Feshbach & Feshbach, 1982; Parke & Slaby, 1983; Robinson, Roberts, Strayer, & Koopman, 2007). Social and developmental psychologists have used empathy to refer to the tendency to be vicariously aroused by another person's affective states, a response that is very similar to what the other individual is perceived to experience. Therefore, it is argued that those individuals are less likely to continue their aggressive behavior towards another, who are predisposed towards vicariously experiencing the pain/distress feelings of the victim.

In this way empathy discourages negative behavior. On the other hand, individuals who lack in the capacity for feeling another's emotional states might engage in disruptive acts that depict failure of sociomoral development, such as antisocial behaviors and other forms of externalizing problems. Thus, one might expect individuals who express aggressive, delinquent, and antisocial behavior to exhibit less empathic responsiveness toward others (Cohen & Strayer, 1996; Hastings, Zahn-Waxler, Robinson, Usher, & Bridges, 2000; Hepper, Hart, Meek, Cisek, Sedikides, 2014).

The primary objective of the present research was to examine the relation of emotional empathy with delinquency in adolescent boys. It was expected that individuals who exhibit negative behaviors which have harmful consequences for others are likely to be lower on emotional empathy.

# **Empathy: Conceptual Distinctions**

In order to understand the relation of empathy with delinquency it is also important to know how different psychologists conceptualize empathy. In their study of empathy, psychologists follow two paths, based on its two definitions. Some psychologists focus on the cognitive processes, while others take it to mean an affective process. "Cognitive empathy refers to the ability to accurately cognize things from another's perspective (Hogan, 1969), whereas emotional empathy can be defined as an inclination to vicariously experience the emotions of another (Hoffman, 2000; Mehrabian & Epstein, 1972). For the present study, empathy is conceptualized in affective terms. We believe that whereas cognitive role taking definition is the recognition of another's feelings, the emotional responsiveness also includes sharing of those feelings. It not only comprises of emotional component, it also involves some cognition as well, which to most theorists is a prerequisite for experiencing empathy (Batson, 1987; Feshbach, 1978). It is also assumed that the emotional characteristic of empathy plays an important function in reducing harmful behavior towards others. Emotional empathy enables an individual to not only attend to another's feelings but respond/be moved at an emotional level to the plight of another. A review of the research literature showed that emotional empathy has been found to be related with prososcial orientations and moral development (see Eisenberg & Miller, 1987; Eisenberg & Strayer, 1987). Other researchers have found empathy, defined in affective terms, to play an important role in the inhibition of aggressive and antisocial behaviors ((Feshbach & Feshbach, 1982; Lovett & Sheffield, 2007; Mehrabian, 1997; Parke & Slaby, 1983).

# The Relation of Emotional Empathy with Delinquency

Delinquency is a form of antisocial behavior that has negative consequences for others, consequences which are similar to, if not often more serious than, those for aggression in general. Psychologists continue to define delinquency in legal rather than psychological terms. According to Trojanowicz and Morash (1987), "delinquent behavior is prohibited by law and is carried out by youths approximately up to the age of eighteen. Two types of behaviors are legally prohibited by the State laws for juveniles. The first included behavior which is criminal for adults, such as the serious offences of murder, rape, fraud, burglary, and robbery. Offences such as trespassing and drug abuse are also included in this category. Status offences are the second type of delinquent behavior, and they are not legally prohibited for adults (e.g., running away from home, being unruly, being truant from school)."

Similarly, for Yoshikawa (1994), juvenile delinquency is a legal concept that includes chronic truancy, vandalism, stealing, or otherwise breaking the law, and is also subsumed under conduct disorders. Whereby, conduct disorder is a persistent pattern of repeatedly violating the rights of others or age-appropriate social norms. Children, who chronically lie, cheat, run away from home, or show disregard for others, fall into this category.

In their study of personality and delinquency, psychologists have tried to understand the developmental trajectories leading to an antisocial youth. Research literature seems to be quite clear in indicating a general developmental delay in moral reasoning abilities on the part of delinquents (Quay, 1965). Emotional empathy has been found to be underlying mechanism that engenders moral behavior. It has been suggested that perspective taking and emotional arousal in response to others in distress can promote interpersonal responsibility and inhibit harmful acts (Eisenberg & Mussen, 1989; Feshbach, 1975; Hoffman, 1982). According to Feshbach (1975) and Hoffman (1984), emotional empathy engenders an aversive affective arousal in an individual when he observes the expressions of another's emotional distress or pain. The pain cues from the victim may generate personal distress in the perpetrator of aggression. Reduction of harmful behavior toward another would be reinforcing to the aggressor, because it would result in less vicarious negative arousal. Hoffman further suggested that feelings of such distress would inhibit immoral behavior primarily when the individual feels responsible for the distress state of the other person.

In research on the association between vicarious emotional responding and prosocial behavior, researchers generally have found that people who report relatively high levels of sympathy as a result of empathizing, frequently try to assist others in distress even if they can escape from the distressed person (Batson, 1991; Eisenberg & Fabes, 1990) and are expected to engage less in negative behavior. Staub (1986) maintains that sympathy may evolve from a sense of connectedness with others and a positive valuing of others, both of which should preclude harming others. Moreover, role-taking activities that often are a part of sympathizing and mature empathy should result in a reduction of misunderstandings, accompanied by a lessening of conflict and aggression (Feshbach & Feshbach, 1986). Consistent with the above theorizing, such situational factors as the immediacy and intensity of pain cues have been associated with lower levels of aggression (e.g., Baron, 1971; Mehrabian & Epstein, 1972). These cues should evoke aversive personal distress reactions or sympathetic concern, either of which could inhibit aggression. Hare (1994) contended that psychopaths have a shallow understanding of emotional realm. In his study, he found that psychopaths about to receive an electric shock show no sign of the fear response that is normal in people about to experience pain. He suggested that since psychopaths do not feel fear, they have no empathy or compassion for the fear and pain of their victims.

Chandler (1973) has pointed out that a sizable body of literature links prosocial behavior to the development of age-appropriate role-taking and/or perspective-taking abilities, and that a variety of antisocial behaviors have been linked with the persistence of egocentric thought. Individuals characterized by developmental delays in these capacities ".....have been shown to systematically misread societal expectations, to misinterpret the actions and intentions of others, and to act in ways which were judged to be callous and disrespectful of others" (p. 326). Chandler compared the social egocentrism of serious and chronic delinquent and nondelinquent youths. Marked and significant differences were observed, with almost no overlap between the distributions of the two samples. Moreover, in another study, Chandler (1973) found that highly aggressive 11-to-13 year old delinquents who participated in a ten week program designed to make them more aware of other people's feelings subsequently became less hostile and aggressive, compared with a second group of delinquents who had not participated in the program. Feshbach and Feshbach (1982) reported similar results in an empathy-training program with 9-to-11 year-olds. Although this effect was also found for a group of children who received training in social-problem solving strategies, it is consistent with the previous research to expect aggressive behavior to be mediated by social-cognitive factors as well as empathy (see Dodge, 1980; Parke & Slaby, 1983; Perry, Perry, & Rasmussen, 1986).

Little and Kendall (1979), in one of their studies, administered Chandler's measure to 37 female delinquents in a state learning centre and found role taking deficits in 73% of the sample. It has also been reported that efficacy of role-taking training with delinquents has been minimal (Chandler, 1973). Other studies (Gough, 1948; Sarbin, 1954) also attributed the deviant behavior and thinking of delinquents and psychopaths to role-taking deficiencies.

Other studies, however, which compared the relative deficits of delinquents and nondelinquents on both cognitive and affective role-taking abilities found only the latter to be lacking (e.g., Rottenberg, 1974). Kaplan and Arbuthnot (1985) found no differences in cognitive role taking, and no significant differences in affective empathy, for 13- to-15 year old male and female delinquents and nondelinquents. However, significant differences did favor the nondelinquent group on a production measure of affective empathy. Taken together, these studies suggest that while cognitive role taking may play an enabling role in preventing delinquency, it appears not to be a sufficient factor by itself. Affective empathy—that is, not only seeing the situation from other's perspective but caring at an emotional level about other's plight—appears to play a significant role in moderating aggressive and delinquent behaviors.

Carr and Lutjemeir (2005) studied the relation of facial affect recognition, empathy and delinquency in a sample of 29 male youth offenders at a probation placement facility. A moderate positive relationship between ability to recognize the expression of anger in adult faces, and self-reported acts of delinquent behavior was found. Findings also revealed a moderate inverse relationship between ability to recognize facial expressions of emotions in child faces and self-reported acts of physical violence. Additionally, a strong inverse relationship was found between ability to empathize with the emotional experiences of others and self-reported acts of delinquent behavior.

Some longitudinal data suggests that the negative relation between sympathy and aggression/externalizing, like that for empathy becomes more consistent with age. Hastings et al. found that 4- to 5-year olds high and low in risk for behavioral problems (internalizing and externalizing) did not differ in their observed concern for others. However, there was a significant decrease in concern for others from age 4–5 to age 6–7 only for the high-risk children. At age 6–7 years, the high-risk children were relatively low in self-reported empathy and in teacher-reported prosocial/empathic responding. Greater concern at 4–5 years predicted a decline in the stability and severity of externalizing problems at age 6–7 years and greater concern/empathy/prosocial behavior (a composite) at age 6–7 years predicted a decline in the stability of these problems by 9–10 years. More recently, Hepper et al. (2014) studied the role of narcissism (at both clinical and sub clinical trait levels) and empathy, by comparing levels in young adult males currently serving a prison sentence to those with no history of criminal convictions. The study demonstrated narcissism predicts offending via empathy deficits, i.e., high narcissism leads to low cognitive empathy, which leads to low affective empathy, which leads to offender status.

Thus, deficits in emotional empathy may be held as one of the hallmarks of antisocial behaviors. On the basis of the preceding theoretical considerations and overwhelming research evidence, it was hypothesized that emotional empathy would be negatively related with delinquency. The study employed the affective measure of empathy to assess the role of emotional empathy in delinquency.

# Method

This study was conducted to examine the relation of emotional empathy with delinquency. In view of theoretical considerations mentioned above, the relationship between the two variables was expected to be negative. In addition, the psychometric characteristics of the Emotional Empathy Scale (EES) and the Self-Reported Delinquency Scale (SRDSG,

Gibson, 1971) such as, means, standard deviations, and Cronbach's alphas were analysed. The following hypotheses were formulated: 1) Emotional empathy will be negatively correlated with delinquency, and 2) EES subscales will also be negatively correlated with Self-Reported Delinquency Scale (SRDSG).

## **Participants**

A sample of 125 adolescent boy students from the Gordon College for Boys, Rawalpindi; Asghar Mall College for Boys, Rawalpindi; and, F. G. College for Boys, H-9, Islamabad, was used for the present study. The average age of the participants was 16.9 years, S.D. = 1.8 (ages ranging from 16 to 18 years). Of the 125 participants, 70% were from natural sciences and 30% were from the social sciences as regards the areas of study.

#### **Instruments**

The details of the instruments employed in the present study are as follows:

Emotional Empathy Scale (EES): The EES, developed by Ashraf (2004), was used for the assessment of the trait of emotional empathy in adolescents. It is a 26-item self-report measure of the tendency to experience vicariously the (positive and negative emotional experiences of others. It measures individual differences in the trait of emotional empathy. The theoretical model of emotional empathy proposed by Mehrabian (1996) was used as a basis for the development of the EES. Respondents use a 7-point scale, on which "1" represents "strong disagreement" and "7" represents "strong agreement" to indicate the extent to which each item described them. To reduce response bias, 17 items were worded positively, and 9 items were worded negatively. The EES is intended for use with adolescents and general adult population. The norms for EES are as follows: Mean = 143; Standard Deviation = 20.

EES is a multidimensional measure of the trait of emotional empathy. Factor analysis revealed three factors, which collectively explained 42.7% of the total variance. The three subscales are (a) Tendency to be moved by others' positive and negative emotional experiences, (b) Emotional responsiveness, and (c) Susceptibility to emotional contagion. The alpha coefficient for EES is .85 and split-half reliability coefficient is .82.

Evidence for the convergent validity of the EES has been demonstrated through its significant positive correlation with the Balanced Emotional Empathy Scale (BEES, Mehrabian, 1996), r = .65, p<.000. Discriminant–related validity studies showed that emotional empathy was positively related with affiliative tendency (r = .48, p<.000), and trait emotional awareness (r = .41, p<.000), and negatively related with delinquency (r = .28, p<.001).

Self-Reported Delinquency Scale (SRDSG): In order to explore the relationship between emotional empathy and delinquency, the Urdu version of 37 items Self-Reported Delinquency Scale (SRDSG) was used. This scale was developed by Gibson (1971). Rifai and Tariq (1999) translated SRDSG into Urdu language, and examined its psychometric properties. The SRDSG consists of 37 items and uses a dichotomous response format (1 = No; 2 = Yes). Rifai and Tariq reported that the alpha coefficient for the scale was .90. The item to total score correlations ranged from .32 to .64 with an average of .43, thus indicating high internal consistency among items of the scale. Factor analysis of the scale items revealed one major factor that explained 26% of the total variance.

For the present study, the Self- Reported Delinquency Scale (SRDSG) was further refined. The yes-no format of the scale was changed. The yes-no response format has been regarded as too simplistic which makes it difficult to capture the full subtlety of human behavior with such items (Heim, 1975). Respondents often have trouble with yes-no items, preferring to say whether an item applies to them more or less rather than yes or no. Such a response-format is not highly informative, with the result that the questionnaire will not be as

accurate as it should be. Accordingly, current psychometric practice favors a Likert format of at least a 4-point scale. Consequently, a 4-point response format that ranged from "never" (1) to "often" (4) was used for the SRDSG in the present study.

#### **Procedure**

For testing the hypotheses of the present study, the EES and the Urdu version of Self-Reported Delinquency Scale (SRDSG) were administered together to the students. The students were approached individually or in groups. They were not informed about the exact purpose of the study. The participants were informed that the purpose of the study was to gather information anonymously about their personal experiences. It was observed that some of the respondents were initially hesitant about revealing information that could mar their reputation. Therefore, participants were assured that their responses were important only for psychological research, and would not be revealed to any of their teachers/authority figures. All participation was anonymous. They were given a choice to participate or not. Those who agreed were asked to complete EES and SRDSG. They were encouraged to be candid and open in their responses.

After having collected the data, correlation coefficient was computed to test the hypotheses of the present study. Descriptive statistics and Cronbach alphas for the EES and the SRDSG were also determined.

#### **Results**

In order to evaluate the internal consistency of the Emotional Empathy Scale (EES) and the Self-Reported Delinquency Scale (SRDSG), Cronbach's alpha coefficients were computed. The alpha reliability of the EES ( $\alpha$  = .84) and SRDSG ( $\alpha$  = .93) was found to be considerably high. Means and standard deviations were also computed for the scores on the EES (M = 140, SD = 18.0) and SRDSG (M = 56.6, SD = 21.5).

### **Hypotheses Testing**

A correlation coefficient between the scores on the Emotional Empathy Scale and the Self-Reported Delinquency Scale was obtained to assess the proposition that the two scales would be negatively related. The negative correlation found between the two scales supports the notion that affective empathy inhibits delinquent actions towards others. The results are indicated in Table 1.

Table 1 Correlation Coefficient Between the Emotional Empathy Scale (EES) and the Self-Reported

Definiquency Scale (SRDSG) (N= 123)	
Scales	2
1. Emotional Empathy Scale (EES)	28**
2. Self-Reported Delinquency Scale (SRDSG)	
**(p<.001)	

In addition, all EES subscales were found to be significantly and negatively correlated with delinquency (ranging from r = -.21 to -.29, p < .001). Thereby, confirming the second hypothesis of the study. Table 2 presents the results.

Table 2 Correlation Coefficient Between Emotional Empathy Subscales and Self-Reported Delinquency Scale

(SKDSG) (N= 125)	
EES Subscales	SRDSG
Tendency to be Moved by Others' Emotional Experiences	26**
Emotional Responsiveness	29**
Susceptibility to Emotional Contagion	21**
**(p< .001)	

### Conclusion

The present study was an attempt to evaluate the relation between emotional empathy and delinquency on a sample of 125 adolescent boys. Emotional empathy was found to be negatively related with delinquency.

There is a general consensus that empathy itself is a good thing—both intrinsically and in terms of its empirical relation to other desired states of being, such as mental health (Bryant, 1987). A particularly exciting aspect of emotional empathy is that it relates with socially adaptive behavior, which lies at the heart of all healthy growing relationships. There is considerable body of research in which emotional empathy has been found to be related with moral and positive social behaviors (Batson & Coke, 1981; Eisenberg, Eggum, Giunta, 2010; Eisenberg & Miller, 1987; Eisenberg & Strayer, 1987). Consequently, emotional empathy should typically lack in those who commit mean-spirited acts. It has been postulated that feedback from the victim of aggression elicits an emotionally aversive response in the observer. Thus, an empathic individual is discouraged from using harmful instrumental behavior, which has the goal response of injury to another (Hoffman, 1984; Feshbach, 1978; Feshbach & Feshbach, 1982), such as delinquency (de Kemp, Overbeek, de Wied, Engels, & Scholte, 2007; De Wied, van Boxtel, Zaalberg, Goudena, & Matthys, 2006). In a classic study, Chandler (1973) found that highly aggressive delinquents who took part in an intervention program aimed at making them more aware of other people's feelings became less hostile and aggressive, compared with a second group of delinquents who had not participated in the program. Moreover, various researches have also shown that it is the affective component of empathy, which promotes the reduction of negative social behaviors, such as delinquency (Kaplan & Arbuthnot, 1985; Rottenberg, 1974).

In the present study, the Emotional Empathy Scale (EES), based on the affective definition of empathy, was used for exploring the relation of emotional empathy with delinquency. As a preliminary step, psychometric properties of the Emotional Empathy Scale (EES) and Self-Reported Delinquency Scale (SRDSG) were examined. The Cronbach's alpha coefficients for the EES and SRDSG were found to be reportedly high for the given sample.

In order to test the hypothesis that the two variables would be negatively associated with each other, correlation coefficient between the EES and SRDSG was computed. A significant negative correlation of -.28 (p< .001) was found between the two scales. Thus, implying that an empathic disposition tends to discourage the development of delinquency. Delinquent behaviors are predominantly marked by high cruelty, disrespect, and disregard for the consequences of one's own actions toward another, which include; using dangerous weapons in fighting, being insolent and arguing with people on the streets, destroying other people's things, running away from school, carrying out planned robbery into a house or apartment, and engaging in petty crimes such as shoplifting, theft, and drug use; to name a few. As is evident from the present study, it would be reasonable to suggest that such a sweeping drop in emotional and interpersonal competence might be due to lack of social capacity to vicariously experience feelings of another. A person with an empathic bent is likely to experience aversive arousal in response to witnessing another's negative state and is, therefore, discouraged from severely hurting another and seizing for himself. The EES subscales were also found to be negatively associated with delinquency (ranging from r = -.21 to -.29, p< .001). The highest negative correlation was observed between emotional responsiveness and delinquency. Emotional responsiveness represents inclination towards experiencing vicariously the emotions of others and a need to assist others. According to Hoffman (1981), an individual's assistance is motivated by a concern for another as well as by the desire to relieve his distress. A high negative association of emotional responsiveness with delinquent behavior signifies that individuals who experience compassion and are motivated to behaviorally respond to another's emotional states are less likely to engage in behaviors that cause serious harm to another. These findings not only verified the hypothesis, but, were in turn consistent with the existing theory and research suggesting that affective empathy plays an important role in inhibiting antisocial actions toward others (Chandler, 1973; Chandler & Moran, 1990; Cohen & Strayer, 1996; Gibbs, 1987; Hastings et al., 2000; Mehrabian, 1997; Parke & Slaby, 1983). The negative direction of correlation suggests that the two traits may be viewed as opposite ends of a single continuum.

However, it is noteworthy that the magnitude of relation between the two scales is modest. This relatively weak correlation could be interpreted in two ways: First, some of the behaviors tapped by the SRDSG, though delinquent, but may not be *perceived* by youth as leading to serious damage/harm to another person (e.g., "riding a bicycle without lights after dark," "absence or running away from school"). Second, the concept of delinquency needs to be explored more elaborately within the context of Pakistani culture. This society, as much as many other developing societies, unfortunately, is marked by poverty, crime, and social injustices. Due to the deterioration of social values, many delinquent behaviors have become an accepted mode of behaving. Some items in the SDRSG tap behaviors, which are no longer considered as against the law by people (e.g., "driving car, motor bike, or motor scooter under the age of 18"), and have become a part of daily enjoyment (e.g., "setting off fireworks in the street"). As far as these indicators are concerned, empathy is not the issue. Thus, a culturally specific operationalization of delinquency is needed.

The present study is an investigation, which extends some understanding of the factor, namely emotional empathy, which when lacking in an individual may predispose him to delinquency. Thus, deficits in emotional empathy have consequences for negative social behaviors. If one hopes to produce compassionate people, empathy should be of particular interest to society. The findings of the present research hold implications for counseling and therapy, where emotional empathy could both be a tool and a goal. Because of the likely role of empathy in delinquency, future investigations could target on planning interventions/prevention programs for implementing in regular education, in order to promote emotional empathy.

### **References:**

Ashraf, S. (2004). Development and validation of the emotional empathy scale (EES) and the dispositional predictor and potential outcomes of emotional empathy. Unpublished Ph.D. Thesis Dissertation. National Institute of Psychology, Quaid-i-Azam University, Islamabad. Baron, R. A. (1971). Magnitude of victim's pain cues and level of prior anger arousal as determinants of adult aggressive behavior. *Journal of Personality and Social Psychology, 17*, 236-243.

Batson, C. D. (1991). The altruism question: Toward a social-psychological answer. Hillsdale, NJ: Erlbaum.

Batson, D. C., Fultz, J., & Schoenrade, P. A. (1987). Adult's emotional reactions to the distress of others. In N. Eisenberg & J. Strayer (Eds.), *Empathy and its development*. New York: Cambridge University Press.

Batson, C.D., & Coke, J. S. (1981). Empathy: A source of altruistic motivation for helping? In J. P. Rushton & R. M. Sorrentino (Eds.), *Altruism and helping behavior: social, personality, and developmental perspectives*, p. 167-211. Hillsdale, NJ: Erlbaum.

Bryant, B.K. (1987). Mental health, temperament, family and friends: perspectives on children's empathy and social perspective taking. In N. Eisenberg & J. Strayer (Eds.), *Empathy and its development*. New York: Cambridge University Press.

Carr, M.B., & Lutjemeier, J. A. (2005). The relation of facial affect recognition and empathy to delinquency in youth offenders. *Adolescence*, 40, 601-619.

Chandler, M. J. (1973). Egocentrism and antisocial behavior: The assessment and training of social perspective-taking skills. *Developmental Psychology*, *9*, 326-332.

Chandler, M. & Moran, T. (1990). Psychopathy and moral development: A comparative study of delinquent and nondelinquent youth. *Development and Psychopathology*, 2, 227-246.

Cohen, D. & Strayer, J. (1996). Empathy in conduct-disordered and comparison youth. *Developmental Psychology*, 32, 988-998.

de Kemp R. A. T., Overbeek, G., de Wied, M., Engels, R. C. M. E., Scholte, R. H. J. (2007). Early adolescent empathy, parental support, and antisocial behavior. *The Journal of Genetic Psychology*. *168*, 5–18.

De Wied, M., van Boxtel, A., Zaalberg, R., Goudena, P. P., Matthys, W. (2006). Facial EMG responses to dynamic emotional facial expressions in boys with disruptive behavior disorders. *Journal of Psychiatric Research*, 40, 112–121.

Dodge, K. (1980). Social cognition and children's aggressive behavior. *Child Development*, 51, 162-170.

Eisenberg, N., & Fabes, R. A. (1990). Empathy: Conceptualization, assessment, and relation to prosocial behavior. *Motivation and Emotion*, *14*, 131-149.

Eisenberg, N., & Miller, P.A. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin*, 101, 91-119.

Eisenberg, N., & Mussen, P. H. (1989). *The roots of prosocial behavior in children*. New York: Cambridge University Press.

Eisenberg, N., & Strayer, J. (1987). *Empathy and its development*. New York: Cambridge University Press.

Eisenberg, N., Eggum, N. D., Giunta, L. D. (2010). Empathy-related responding: Associations with prosocial behavior, aggression, and intergroup relations. *Social Issues and Policy Review*, 4 (1), 143-180.

Eisenberg, N., Guthrie, I. K., Cumberland, A., Murphy, B. C., Shepard, S. A., Zhou, Q., & Carlo, G. (2002). Prosocial development in early adulthood: A longitudinal study. Journal of Personality and Social Psychology, 82, 993-1006.

Eisenberg, N., Zhou, Q., & Koller, S. (2001). Brazilian adolescents' prosocial moral judgment and behavior: Relations to sympathy, perspective taking, gender-role orientation, and demographic characteristics. *Child Development*, 72, 518-534.

Feshbach, N. D. (1975). Empathy in children: Some theoretical and empirical consideration. *Counseling Psychologist*, *5* (2), 25-30.

Feshbach, N. D. (1978). Studies of empathic behavior in children. In B.A. Maher (Ed.), *Progress in experimental personality research* (vol. 8, p. 1-47). New York: Academic Press.

Feshbach, N. D., & Feshbach, S. (1982). Empathy training and the regulation of aggression: Potentialities and limitations. *Academic Psychology Bulletin*, *4*, 399-413.

Feshbach, S. & Feshbach, N. D. (1986). Aggression and altruism: A personality perspective. In C. Zahn-Waxler, E. M. Cummings, & R. Iannotti (Eds.), *Altruism and aggression: Biological and social origins* (pp. 189-217). Cambridge, UK: Cambridge University Press.

Gibbs, J. C. (1987). Social processes in the causation and treatment of delinquency: The need to facilitate empathy as well as sociomoral reasoning. In W. M. Kurtines & J.L. Gewirtz (Eds.), Social interaction and sociomoral development (pp. 301-321). New York: Wiley.

Gibson, H. B. (1971). Factorial structure of juvenile delinquency: A study of self-reported acts. *British Journal of Clinical and Social Psychology*, 10, 1-9.

Gough, H.G. (1948). A sociological theory of psychopathy. *American Journal of Sociology*, 53, 359-366.

Hare, R. (1994). Emotions in the criminal psychopath: Fear image processing. *Journal of Abnormal Psychology*, 103, 310-317.

Hastings, P. D., Zahn-Waxler, C., Robinson, J., Usher, B., & Bridges, D. (2000). The development of concern for others in children with behavior problems. *Developmental Psychology*, *36*, 531-546.

Heim, A. W. (1975). Psychological testing. London: Oxford University Press.

Hepper, E. G., Hart, C. M., Meek, R., Cisek, S. Z., & Sedikides, C. (2014). Narcissism and empathy in young offenders and non-offenders. *European Journal of Personality*, 28, 201-210.

Hoffman, M. L. (1975). Developmental synthesis of affect and cognition and its implications for altruistic motivation. *Developmental Psychology*, 11, 607-622.

Hoffman, M. L. (1984). Empathy, social cognition and moral action. In Kurtines & J. Gerwitz (Ed.), *Moral behavior and development*. New York: John Wiley & Sons.

Hoffman, M. L. (1984). Interaction of affect and cognition in empathy. In C. Izard, J. Kagan & R. Zajonc (Eds.), *Emotions, cognition, and behavior*. New York: Cambridge University Press.

Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice*. Cambridge, UK: Cambridge University Press.

Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, 33, 307-316.

Kaplan, P., & Arbuthnot, J. (1985). Affective empathy and cognitive role-taking in delinquent and non-delinquent youth. *Adolescence*, 20, 323-333.

Little, V.L., & Kendall, P.C. (1979). Cognitive-behavioral interventions with delinquents: Problem-solving, role-taking, and self-control. In P. Kendall and S. Hollon (Eds.), *Cognitive-behavioral interventions: Theory, research and procedures*. New York: Academic Press.

Lovett, B. J., & Sheffield, R. A. (2007). Affective empathy deficits in aggressive children and adolescents: A critical review. *Clinical Psychology Review*, 27, 1-13.

Mehrabian, A. (1996). *Manual for the Balanced Emotional Empathy Scale (BEES)*. Available from Albert Mehrabian. U.S.A.

Mehrabian, A. (1997). Relations among personality scales of aggression, violence, and empathy: Validational evidence bearing on the Risk of Eruptive Violence Scale. *Aggressive Behavior*, 23, 433-445.

Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality*, 40, 525-543.

Parke, R. D., & Slaby, R. G. (1983). The development of aggression. In E. M. Hetherington (Ed.), *Manual of Child Psychology; socialization, personality and social development, vol. 4*, 549-641. New York: Wiley.

Perry, D. G., Perry, L.C., & Rasmussen, P. (1986). Cognitive social learning mediators of aggression. *Child Development*, *57*, 700-711.

Quay, H. C. (1965). Personality and delinquency. In H. C. Quay, (Ed.), *Juvenile delinquency: Research and theory* (pp. 139-169). Princeton NJ: Van Nostrand.

Riffai, F., & Tariq, N. (1999). *Development and validation of self-esteem scale*. Unpublished Ph.D. Thesis Dissertation. National Institute of Psychology, Quaid-i-Azam University, Islamabad.

Robinson, R., Roberts, L. W., Strayer, J., & Koopman, R. (2007). Empathy and emotional responsiveness in delinquents and non-delinquent Adolescents. *Social Development*, *16*, 555-579

Rottenberg, M. (1974). Conceptual and methodological notes on affective and cognitive role-taking (sympathy and empathy): An illustrative experiment with delinquent boys. *Journal of Genetic Psychology*, 125, 177-185.

Sarbin, T. R. (1954). Role theory. In G. Lindzey (Ed.), *Handbook of Social Psychology, vol. 1*. Cambridge: Addison-Wesley.

Staub, E. (1986). A conception of the determinants and development of altruism and aggression: Motives, the self, and the environment. In C. Zahn-Waxler, E.M. Cummings, & R. Iannoti (Eds.), *Altruism and aggression: Biological and social origins*. (pp. 238-255). Cambridge, England: Cambridge University Press.

Trojanowicz, R., & Morash, M. (1987). Juvenile delinquency: concepts and control. Englewood cliffs, New Jersey: Simon & Schuster.

Underwood, B., & Moore, B. (1982). Perspective-taking and altruism. *Psychological Bulletin*, 91, 143-173.

Yoshikawa, H. (1994). Prevention as cumulative protection: Effects of early family support and education on chronic delinquency and its risks. *Psychological Bulletin*, *115*, 28-54.