

# Predicting Aggression Based on Child Abuse Experience: Mediated by Shame and Empathy in Delinquent Juvenile

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## ABSTRACT

**Objectives:** The aim of this study was to investigate the mediating role of shame and empathy in the relationship between the experience of child abuse and aggression in juvenile delinquents. **Methods:** The participants of this study included 200 delinquent male adolescents of Tehran Correctional Center who were selected voluntarily based on non-random method. Child abuse (Hosseinkhani et al., 2013), aggression (Buss and Perry, 1992), self-conscious emotion (Tangney et al., 1996) and interpersonal reactivity (Davis, 1980) questionnaires were completed by each participant. Pearson correlation, structural equation modeling and Sobel test were used to analyze the data.

**Results:** Findings showed that feelings of shame had a significant mediating role in the experience of child abuse and aggression. In addition, there was a significant positive relationship between shame and total aggression score ( $P < 0.01$ , 0.33) and at the same time, there was a significant positive relationship between shame and aggression dimensions including physical dimension, verbal dimension, anger and hostility. Also, there was a significant positive relationship between the total score of child abuse and shame ( $P < 0.01$ , 0.32) and at the same time, there was a significant positive relationship between shame with the physical dimension of child abuse and emotional dimension, but shame had no significant relationship with neglect dimension.

**Conclusion:** The results of the present study showed that no relationship was found between empathy and any of the research variables. Thus, empathy could not play a mediating role in the relationship between child abuse – aggression and shame – aggression.

## Keywords

Child Abuse, Shame, Empathy, Aggression, Adolescents, Delinquent.

## Introduction

Juvenile is one of the most important stages of human development, which is associated with many stressors. This period represents a wide range of changes that connect childhood to adulthood (Mansour, 1995, quoted by Barghandan et al., 2014). Therefore, a successful passage through this period is very important and can be a predictor of healthy adulthood. One of the challenges of adolescence is anger and aggression (O'Neill, 2006, quoted by Barghandan et al., 2014). Aggression is one of the most common problems in adolescents and is one of the most important reasons for referring them to psychotherapists (Sukhodolsky et al., 2004). In general, aggression is a verbal or physical behavior that is accompanied by violence and contentious behavior. Aggressive children and adolescents try to dominate other children or even their adult caregivers through physical or verbal

violence. Researchers have divided aggression into two categories; Hostile aggression and instrumental aggression (Anderson and Bushman, 2002). Studies indicate an increasing prevalence of violence and aggressive behavior in schools, especially in recent years (MacNiele, 2002; Silver, 2007).

There is a relationship between the child abuse experience and violent behaviors in the future (Lansford, 2002). There are different types of child abuse: Child physical abuse means the intentional harm inflicted on a child by an adult. Sexual harassment includes any sexual activity with a child before the age of legal consent. Neglect means not meeting the child's basic needs such as food, clothing, maintenance, support and educational facilities. Emotional abuse also means any abuse of a child that is psychologically harmful based on social criteria and the opinion of experts. That is, any behavior that affects the behavioral, cognitive, physical and emotional

functioning of the child, such as constant humiliation and insult to the child (Naghavi et al., 2006). Child abuse and neglect often have different physical, emotional, behavioral, and social effects. Physical harms related to child abuse may occur immediately, but it can also have long-term overall effects on family and social life. Children who experience violence will develop maladaptive emotional, social, cognitive, and physical behaviors in the future (Jellen, 2001). Antisocial behaviors and physical aggression along with fear and anger are permanent effects of child abuse. Self-destructive and delinquent behaviors have also been cited in many studies as consequences of child abuse or neglect (Bartholomew et al., 2000).

In 1992, Lewis proposed the theory of the relationship between traumatic parenting and violence mediated by emotions, one of which was the shame. In Lewis model, the amount of shame experienced by individuals was directly related to the severity of their injury in childhood and adolescence by their parents. From the perspective of social psychology, shame is the only emotion that is formed in the process of communicating with others and necessarily occurs in the real or imagined presence of others (Tangney et al., 1992). Studies have shown that people with high levels of embarrassment are more willing to blame others, and as a result, express their anger more easily to those who have judged them (Bennett et al., 2005). Emotions of shame, like pride, guilt, and embarrassment, belong to the group of self-conscious emotions. Shame is one of the most painful emotions (Lewis, 1971) that occur when a person feels unfavorable for violating a socially accepted standard (Elison, 2005; Fessler, 2007; Gilbert, 2007). It can be said that the feeling of shame has evolved in the social context and in interaction with the people of a society and in order to prevent rejection by them (Ausubel, 1995). Many researchers agree on the existence of painful childhood experiences to find the relationship between shame and aggression (Fonagy and Levinson, 2004). Research has shown that immersion in negative emotions increases and triggers emotional dysregulation and aggressive behavior (Robertson et al., 2015).

When someone feels empathy for another, they are experiencing the same emotions, conditions,

or state of mind. The feeling of empathy leads to help by the empathizer to the target person. According to this scenario, the empathetic person focuses on the needs and experience of the other person as opposed to self-centered anxiety reactions (Tangney and Dearing, 2002). Tangney and Dearing (2002) state that people with a high level of shame proneness are more aware of their emotional needs in case of face another person's grief. Recent research confirms the role of empathy in mental health, social adjustment, and the reduction of antisocial behaviors. Numerous studies have examined the relationship between empathetic behavior and social adjustment, responsibility, societal behaviors, and aggression (Cutierrez et al., 2011). The results of Gordon (2003) showed that children's participation in empathy education programs led to a decrease in aggression, increased social behavior and increased social and emotional perception. The study by Stryer and Roberts (2004, quoted by Arefi and Latifian, 2011) also showed that children with low empathy show more aggressive behaviors.

The shame emotion belongs to the group of self-conscious emotions. Self-conscious emotions appear in situations that trigger self-assessment operations (Tangney, 2005). Rejective and punitive behaviors reinforce the child's sense of shame. Punitive behaviors such as shouting, beating or slapping lead to feelings of helplessness and shame in the child. This model of criticism focuses on the personality of individuals and not on their behavior (Tangney, 2002).

Nowadays, there is a growing focus on the issue of child abuse and the impact of interpersonal violence on public health (Norman et al., 2010). The consequences of violence against children can be enormous. Physical injury or death is the only direct consequences of this type of violence (Butchart et al., 2006). The results of several studies show that the occurrence of mental disorders and physical, emotional, social, psychological and behavioral problems in victims of child abuse is only one of the primary consequences of this abnormal phenomenon (Naghavi et al., 2006). Given the destructive effects of child abuse on children's violent behaviors in the future, this problem needs more attention in order to raise public awareness in this

regard and prevent this great harm to children and consequently to the health of the family and society. Therefore, the aim of this study was to predict aggression based on the experience of childhood violence mediated by shame and empathy in delinquent adolescents.

### Methods

The statistical population of this descriptive-correlational study included 200 delinquent male adolescents of Tehran Correctional Center in 1398. Sampling was done by available method and due to the small statistical population; the whole population was selected as the research sample. Inclusion criteria include: 1- age 12 to 19 years, 2- Iranian nationality and 3- People's satisfaction for answering the questionnaire. Exclusion criteria included age over 19 years and no Iranian nationality. Child abuse questionnaire, self-conscious emotion questionnaire, interpersonal reactivity index (IRI) and aggression questionnaire (AQ) were used to measure the research variables.

#### Child Abuse Questionnaire

This questionnaire was designed by Hosseinkhani et al. (2013). This scale has 26 items and three dimensions of psychological and emotional, physical and neglect; with a three-point Likert scale (never- always) and each item has a value between 1 and 3. The reports of Hosseinkhani et al. (2013) indicate the desired validity and reliability of this questionnaire and its applicability for child abuse studies in Iran. In the present study, Cronbach's alpha for psychological and emotional, physical and negligence dimensions was 0.86, 0.92, 0.75 and total score of 0.92, respectively.

#### Test of Self-Conscious Affect (TOSCA-2)

This questionnaire was developed by Tangney et al. (1996). This test is a self-assessment tool that presents 16 situations of daily living conditions. 11 status has a positive social value and 5 status has a negative value. Respondents rank their possible emotional and behavioral responses accordingly. All the scenarios of this test have items of shame and guilt and mental occupation with guilt. However some items include self-

defense, isolation, indifference and externalization. All questions are scored directly. Subjects rank their answers as 5-point Likerts, ranging from 1 meaning "unlikely" to 5 meaning "likely" (Tangney, 2005). The structure validity and reliability of this questionnaire were measured by Fontaine et al. (2001) which indicates a good fit of the structure as well as a reliability of 0.70 for the shame proneness scale which generally reports the good validity and reliability of this questionnaire. In the present study, the subscale of shame was used. In the research of Zarei et al. (2011) Cronbach's alpha for the shame subscale has been reported to be 0.80. In the present study, Cronbach's alpha for the shame proneness scale was 0.74.

#### Interpersonal Reactivity Index (IRI)

This questionnaire was developed by Davis (1980) to measure different dimensions of empathy. The IRI is a questionnaire consisting of 28 questions divided equally among four distinct subscales; that is, "perspective taking" or "the tendency to spontaneously adopt the psychological view of others in everyday life;" "empathic concern" or "the tendency to experience feelings of sympathy or compassion for unfortunate others;" "personal distress" or the "tendency to experience distress or discomfort in response to extreme distress in others;" and "fantasy" or "the tendency to imaginatively transpose oneself into fictional situations". Davis' (1980) study demonstrates the validity and reliability of the questionnaire. Also in this study, Cronbach's alpha was reported to be 0.72 to 0.78 for men and women and also the reliability coefficient of test and retest was 0.61 to 0.81 for men and women. The reliability of the test and retest in the Iranian population was 0.71 and for each subscale of fantasy, perspective taking, empathetic concern and personal distress were 0.73, 0.70, 0.69 and 0.70, respectively (Khodabakhsh and Mansouri, 2012). In the present study, only the subscales of perspective taking and empathetic concern and concern were used, whose Cronbach's alpha was 0.61 and 0.43, respectively (0.63 for the total score).

#### The Aggression Questionnaire (AQ)

The Buss and Perry's Aggression Questionnaire (1992) includes 29 questions which measure four components of aggressive behavior such as physical aggression, verbal aggression, anger, and hostility. Subjects respond to each expression in a 5-point Likert scale from not at all like me (1) to completely like me (5). The aggression questionnaire has acceptable reliability and validity. The results of the retest coefficient for four subscales (with an interval of 9 weeks) were 0.72 to 0.80 and the correlation between the four subscales was 0.38 to 0.49. Cronbach's alpha coefficient was used to measure the internal validity of the scale. The results showed that the internal consistency of the subscale of physical aggression was 0.82, verbal aggression was 0.81, anger was 0.83 and hostility was 0.80 (Buss and Perry, 1992). In Iran, Cronbach's alpha coefficient for the Aggression Questionnaire was about 0.89 and its retest validity was 0.80 (Pourshahriari, 2009). In the present study, Cronbach's alpha was obtained 0.67, 0.41, 0.55 and 0.72 for each of the subscales of physical aggression, verbal aggression, anger and hostility, respectively (0.85 for the whole scale).

Questionnaires were screened after collection and descriptive statistics and inferential statistics were used to analyze the data in SPSS software.

## Results

**Table 3.** Results of Kolmogorov-Smirnov and Shapiro-Wilk tests

|   | Kolmogorov-Smirnov |                    |          | Shapiro-Wilk |                    |          |
|---|--------------------|--------------------|----------|--------------|--------------------|----------|
|   | Statistics         | Degrees of freedom | P- value | Statistics   | Degrees of freedom | P- value |
| Perspective taking                      | 0.069              | 163                | 0.06     | 0.985        | 163                | 0.07     |
| Empathic concern                        | 0.057              | 163                | 0.08     | 0.986        | 163                | 0.11     |
| Physical aggression                     | 0.054              | 163                | 0.09     | 0.99         | 163                | 0.32     |
| Verbal aggression                       | 0.068              | 163                | 0.06     | 0.988        | 163                | 0.17     |
| Anger                                   | 0.061              | 163                | 0.07     | 0.989        | 163                | 0.22     |
| Hostility                               | 0.067              | 163                | 0.07     | 0.986        | 163                | 0.11     |
| Psychological and emotional child Abuse | 0.043              | 163                | 0.12     | 0.993        | 163                | 0.57     |
| Physical child Abuse                    | 0.067              | 163                | 0.07     | 0.992        | 163                | 0.43     |
| Neglect                                 | 0.062              | 163                | 0.07     | 0.987        | 163                | 0.14     |
| Empathy                                 | 0.056              | 163                | 0.08     | 0.989        | 163                | 0.22     |
| Aggression                              | 0.055              | 163                | 0.09     | 0.985        | 163                | 0.07     |
| Child abuse                             | 0.044              | 163                | 0.11     | 0.987        | 163                | 0.14     |
| Shame                                   | 0.061              | 163                | 0.07     | 0.994        | 163                | 0.73     |

The correlation between the studied variables was calculated through Pearson correlation coefficient in SPSS software at the alpha level of 0.05, the

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The results related to the age distribution of the samples are given in Table 1.

**Table 1.** Age characteristics

| Mean  | SD   | Min. | Max. |
|-------|------|------|------|
| 15.84 | 1.76 | 12   | 19   |

The mean and standard deviation of the studied variables presented in Table 2.

**Table 2.** Mean and standard deviation of the studied variables

| Variable                                | Mean  | SD    |
|---|-------|-------|
| Perspective taking                      | 21.82 | 3.81  |
| Empathic concern                        | 26.41 | 5.15  |
| Physical aggression                     | 25.90 | 6.96  |
| Verbal aggression                       | 14.57 | 4.05  |
| Anger                                   | 19.79 | 5.84  |
| Hostility                               | 22.39 | 6.90  |
| Psychological and emotional child Abuse | 15.23 | 4.96  |
| Physical child Abuse                    | 13.18 | 4.57  |
| Neglect                                 | 9.09  | 2.97  |
| Total empathy score                     | 48.26 | 7.30  |
| Total aggression score                  | 82.66 | 19.10 |
| Total child abuse score                 | 37.52 | 10.21 |
| Shame                                   | 30.37 | 8.57  |

The results of Kolmogorov-Smirnov and Shapiro-Wilk tests are shown in Table 3. The results of this table showed that Kolmogorov -Smirnov and Shapiro-Wilk tests were not significant for all variables, which indicated the normality of the research variables.

results of which are shown in Table 4. As shown in Table 4, there is a significant positive relationship between the total score of child abuse



and shame ( $P < 0.01$ , 0.32). There was a significant positive relationship between shame and physical dimension of child abuse ( $P < 0.01$ , 0.26) and emotional psychological dimension ( $P < 0.01$ , 0.39), but there was no a significant relationship between shame and neglect dimension ( $P > 0.05$ , 0.04). There was no significant relationship between the total score of child abuse and empathy ( $P > 0.05$ , -0.05). The results showed that there was no a significant relationship between the dimensions of child abuse with the dimensions of empathy, including psychological emotional with perspective taking ( $P > 0.05$ , 0.02), psychological emotional with empathetic concern ( $P > 0.05$ , 0.00), physical with perspective taking ( $P > 0.05$ , 0.02), physical with empathetic concern ( $P > 0.05$ , -0.15), neglect with perspective taking ( $P > 0.05$ , 0.00) and neglect with empathetic concern ( $P > 0.05$ , -0.08).

As the results of Table 4 show, there is a significant positive relationship between shame and total aggression score ( $P < 0.01$ , 0.33). There is also a significant positive relationship between shame and dimensions of aggression including physical dimension ( $P < 0.01$ , 0.27), verbal dimension ( $P < 0.01$ , 0.26), anger ( $P < 0.05$ , 0.19) and hostility ( $P < 0.01$ , 0.32). There is no significant relationship between the total score of aggression and empathy ( $P > 0.05$ , -0.06). In the present study, there was no significant relationship between the dimensions of aggression and the dimensions of empathy, including the physical dimension with perspective taking ( $P > 0.05$ , -0.02), the physical dimension with empathetic concern ( $P > 0.05$ , -0.14), the verbal dimension with perspective taking ( $P > 0.05$ , -0.04), verbal with empathetic concern ( $P > 0.05$ , 0.07), anger with perspective taking ( $P > 0.05$ , -0.10), anger with empathetic concern ( $P > 0.05$ , 0.00), hostility

with perspective taking ( $P > 0.05$ , -0.08) and hostility with empathetic concern ( $P > 0.05$ , 0.00).

According to the results of Table 4, there is no significant relationship between shame and total empathy score ( $P > 0.05$ , -0.09). It should be noted that there was no significant relationship between shame and the dimensions of empathy including perspective taking ( $P > 0.05$ , -0.08) and empathetic concern ( $P > 0.05$ , -0.07). There is also a significant relationship between child abuse and total aggression score ( $P < 0.05$ , 0.35). The results showed that there was a significant relationship between the dimensions of child abuse and the dimensions of aggression including psycho-emotional with physical ( $P < 0.05$ , 0.38), psycho-emotional with verbal ( $P < 0.05$ , 0.24), psycho-emotional with anger ( $P < 0.05$ , 0.22), psycho-emotional with hostility ( $P < 0.05$ , 0.31), physical with physical ( $P < 0.05$ , 0.26), physical with hostility ( $P < 0.01$ , 0.16), neglect with physical ( $P < 0.05$ , 0.26), neglect with anger ( $P < 0.01$ , 0.18) and neglect with hostility ( $P < 0.05$ , 0.21). However, there was no significant relationship between physical child abuse with verbal ( $P > 0.05$ , 0.07), physical and anger ( $P > 0.05$ , 0.14), neglect and verbal dimensions ( $P > 0.05$ , 0.11).

Also, the path of child abuse to aggression is non-significant despite the positive correlation between these two variables. This association may be due to the fact that when child abuse predicts aggression along with the shame variable, it does not make a significant independent contribution to predicting the variance of aggression. In fact, this variable can predict aggression by predicting shame. In other words, the experience of child abuse in a person does not directly lead to aggression, but if it causes shame in the child, it leads to aggression. Path coefficients and their significance are shown in Table 5.

**Table 4.** Matrix of Pearson correlation coefficients between research variables

| Variables                                  | 1      | 2     | 3      | 4      | 5      | 6      | 7      | 8      | 9 | 10 | 11 | 12 | 13 |
|--|--------|-------|--------|--------|--------|--------|--------|--------|---|----|----|----|----|
| 1- Perspective taking                      | 1      |       |        |        |        |        |        |        |   |    |    |    |    |
| 2- Empathetic concern                      | **0.31 | 1     |        |        |        |        |        |        |   |    |    |    |    |
| 3- Physical aggression                     | -0.02  | -0.14 | 1      |        |        |        |        |        |   |    |    |    |    |
| 4- Verbal aggression                       | -0.04  | 0.07  | **0.45 | 1      |        |        |        |        |   |    |    |    |    |
| 5- Anger                                   | -0.10  | 0.00  | **0.58 | **0.42 | 1      |        |        |        |   |    |    |    |    |
| 6- Hostility                               | -0.08  | 0.00  | **0.59 | **0.49 | **0.52 | 1      |        |        |   |    |    |    |    |
| 7- Psychological and emotional child Abuse | 0.02   | 0.00  | **0.38 | **0.24 | **0.22 | **0.31 | 1      |        |   |    |    |    |    |
| 8- Physical child Abuse                    | 0.02   | -0.15 | **0.26 | 0.07   | 0.14   | *0.16  | **0.73 | 1      |   |    |    |    |    |
| 9- Neglect                                 | 0.00   | -0.08 | **0.26 | 0.11   | *0.18  | **0.21 | **0.21 | **0.38 | 1 |    |    |    |    |

|                 |        |        |        |        |        |        |        |        |        |       |        |        |   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|---|
| 10- Empathy     | **0.73 | **0.87 | -0.11  | 0.02   | -0.05  | -0.03  | 0.01   | -0.09  | -0.05  | 1     |        |        |   |
| 11- Child abuse | 0.02   | -0.08  | **0.38 | *0.18  | **0.23 | **0.29 | **0.87 | **0.92 | **0.56 | -0.05 | 1      |        |   |
| 12- Aggression  | -0.08  | -0.03  | **0.85 | **0.68 | **0.79 | **0.84 | **0.37 | **0.22 | **0.26 | -0.06 | **0.35 | 1      |   |
| 13- Shame       | -0.08  | -0.07  | **0.27 | **0.26 | *0.19  | **0.32 | **0.39 | **0.26 | 0.04   | -0.09 | **0.32 | **0.33 | 1 |

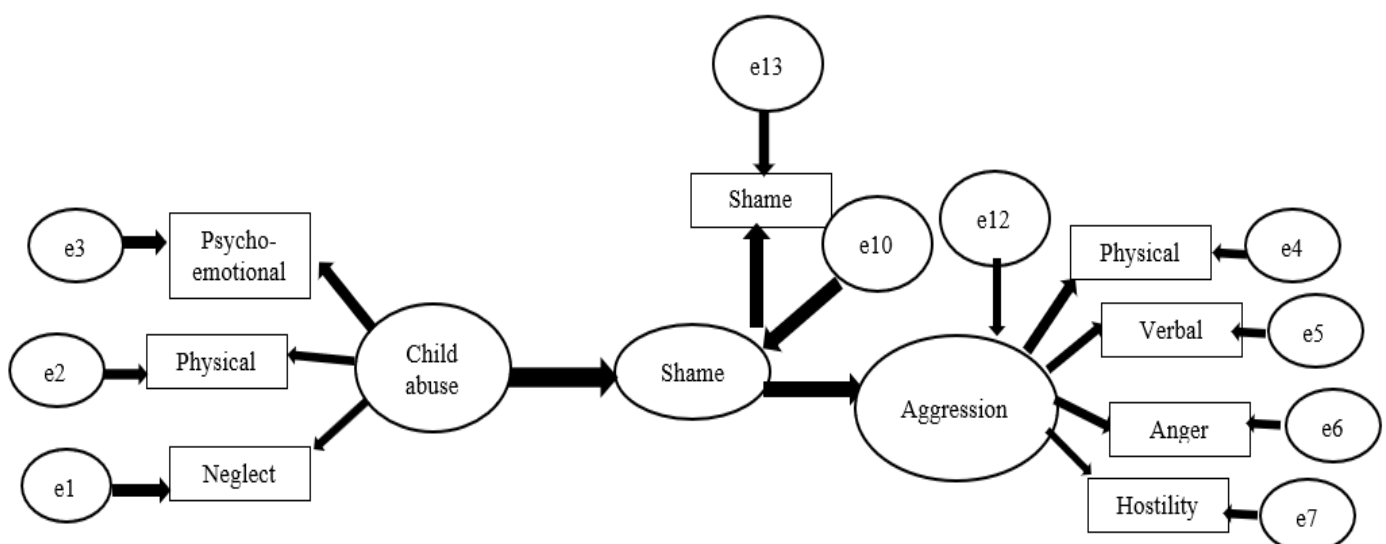
According to Table 7, it can be seen that the indirect effect of shame is not significant on aggression through empathy ( $p > 0.05$ ,  $\beta = 0.029$ ).

**Table 5.** Regression weights of aggression prediction model through experience of child abuse with mediating role of shame and empathy

|                               | Label  | P    | C.R.   | S.E.  | Estimate |             |      |
|-------------------------------|--------|------|--------|-------|----------|-------------|------|
| Shame                         | par_7  | .004 | 2.850  | 1.492 | 4.254    | Child abuse | <--- |
| Empathy                       | par_9  | .277 | 1.086  | .941  | 1.022    | Child abuse | <--- |
| Empathy                       | par_11 | .238 | -1.180 | .188  | -.222    | Shame       | <--- |
| Aggression                    | par_8  | ***  | 3.985  | .172  | .685     | Shame       | <--- |
| Aggression                    | par_10 | .958 | .052   | .241  | .013     | Empathy     | <--- |
| Aggression                    | par_11 | .174 | -1.359 | .993  | -1.349   | Child abuse | <--- |
| Neglect- Child abuse          |        |      |        |       | 1.000    | Child abuse | <--- |
| Physical- Child abuse         | par_1  | ***  | 3.302  | 1.347 | 4.449    | Child abuse | <--- |
| psycho-emotional- Child abuse | par_2  | .001 | 3.231  | 1.787 | 5.773    | Child abuse | <--- |
| Physical- Aggression          |        |      |        |       | 1.000    | Aggression  | <--- |
| Verbal- Aggression            | par_3  | ***  | 7.180  | .062  | .444     | Aggression  | <--- |
| Anger- Aggression             | par_4  | ***  | 8.210  | .089  | .734     | Aggression  | <--- |
| Hostility- Aggression         | par_5  | ***  | 8.858  | .107  | .949     | Aggression  | <--- |
| Empathic concern- Empathy     | par_6  | .*** | .807   | .868  | .701     | Empathy     | <--- |
| Perspective taking- Empathy   | par_12 | .*** | .807   | 1.768 | 1.427    | Empathy     | <--- |
| Total shame                   |        |      |        |       | 1.000    | Shame       | <--- |

The modified model of predicting aggression through the experience of child abuse with the mediating role of shame and empathy is shown in

Figure 1 and the indicators of the model fit in Table 6.



**Figure 1.** A modified model of predicting aggression through the experience of child abuse with the mediating role of shame and empathy

The results of Table 6 show a very good fit of the model. Thus, the final model shows that child abuse, mediated by shame, predicts aggression. This means that the experience of child abuse of any kind of psycho-emotional, physical and neglect causes a child to feel ashamed. The child

responds to this inner feeling with aggression. In this model, empathy, contrary to the initial assumption, had no role in mediating between child abuse and shame with aggression.

**Table 6.** Fitness indices of the modified model of predicting aggression through the experience of child abuse with the mediating role of shame and empathy

| Index | Df | X <sup>2</sup> | RMSEA | CFI  | NFI  | IFI  | GFI  | AGFI |
|-------|----|----------------|-------|------|------|------|------|------|
| Value | 16 | 1.20           | 0.03  | 0.99 | 0.96 | 0.99 | 0.97 | 0.94 |

Table 7 shows the mediating effect of the variables of shame and empathy between the variable of child abuse and the variable of aggression through the Sobel test. This table also includes the mediating effect of the empathy variable between the variable of shame with aggression. According to Table 7, it can be seen that the indirect effect of the child abuse variable is significant on the aggression variable through

shame ( $P < 0.05$ ,  $\beta = 0.622$ ). The indirect effect of child abuse variable is not significant on aggression variable through empathy ( $P > 0.05$ ,  $\beta = 0.023$ ). The indirect effect of shame is not significant on aggression through empathy ( $P > 0.05$ ,  $\beta = 0.029$ ). Also, the indirect effect of child abuse variable is not significant on empathy variable through shame ( $P > 0.05$ ,  $\beta = 0.367$ ).

**Table 7.** The mediating effect of shame and empathy variables between child-abuse variable with aggression variable

| Independent Variable | Mediator variable | Dependent variable | Non-standard coefficient | Standard coefficient | T      | P     |
|----------------------|-------------------|--------------------|--------------------------|----------------------|--------|-------|
| Child abuse          | Shame             | Aggression         | 2.911                    | 0.622                | 2.384  | 0.008 |
| Child abuse          | Empathy           | Aggression         | 0.013                    | 0.023                | 0.053  | 0.478 |
| Shame                | Empathy           | Aggression         | -0.002                   | -0.029               | -0.053 | 0.478 |
| Child abuse          | Shame             | Empathy            | -0.944                   | -0.367               | -1.125 | 0.130 |

## Discussion

The aim of this study was to investigate the role of child abuse in the formation of aggression in delinquent juvenile. It seems that one of the factors that increase violence in society is the experience of child abuse in the past. It is widely acknowledged that child abuse can have devastating effects on the child, parents and whole of the society. Physical, sexual, emotional abuse and neglect can all affect a child's physical and mental health in the short and long term and disrupt their normal development. The findings of the present study showed that there is a relationship between high proneness to shame and aggression. This result is consistent with the results of the studies of Hejdenberg and Andrews (2011), Scheff (2001), Tangney et al. (2001), Gold et al. (2011), Tangney and Dearing (2002) and Ferguson et al. (2000). Although in the study of

Tangney et al. (1992), proneness to shame was indirectly associated with violence, but in this study, shame was related to the dimensions of violence, physical and verbal aggression, and anger.

If a person thinks that others have a negative feeling about him, a negative attitude towards others develops in the person. When he feels rejected in relation to others, he actually feels destroyed through that rejection. Thus, in this state, he feels that the situation is out of his control and one of the ways he can compensate for his lost control is to express anger and aggression towards those who reject him (Lewis, 1971). This result is also consistent with Lewis (1992, 1993) conceptual model of shame-anger. According to this model, anger arises as a response to self-inflicted severe injury due to repeated embarrassment. This anger is also likely to lead to aggression that either targets the person directly

causing the embarrassment or shifts to a more harmless goal. Although there is little evidence to support causal relationships, the association between abuse and a tendency to shame has been confirmed in research by Alessandri and Lewis (1996).

The findings of the present study showed that there is a relationship between the experience of child abuse and aggression. This result is in line with the research of Ostrov et al. (2006), Parker and Herrera (1996), Bennett et al. (2005) and Gold et al. (2011). In this regard, it can be said that these children have difficulty in regulating their emotions due to the experience of child abuse, and lack of skills in emotion regulation is closely related to understanding and identifying emotions and negative reactions to some emotional experiences. Negative reactions to some emotional experiences include feelings of shame, anger, and aggression. Therefore, these people, those who have been abused as children, are clearly more likely to engage in negative emotions such as shame and anger. Thus, it can be concluded that the experience of harassment in childhood is associated with the emotion of shame due to emotional dysregulation which can lead to aggression.

According to Bandura (1975), violence is learned through observation and imitation. There are three ways to learn violent behavior in the family environment: 1- people who love each other are violent towards each other, 2- Lack of moral resource about aggressive and harmful actions, and 3- Violence is allowed even if there is another solution. In addition, research has shown that children who are rejected in the family environment are more hostile than those who are adopted. These people are unstable emotionally and have more negative view of social relationships. Of course, it should be noted that despite the positive correlation between child abuse and aggression, the path of these two variables is non-significant. This may be due to the fact that when child abuse predicts aggression alongside the shame variable, it does not make a significant independent contribution to predicting the variance of aggression. In fact, it predicts aggression by predicting shame, in other words, the experience of child abuse in a person does not directly lead to aggression, but leads to aggression

if it causes shame in the child. It can be said that the result would be positive and significant if the relationship was measured between aggression and the experience of child abuse alone. However, the present study tries to explain these two relationships with a mediator variable, and in this case, the relationship between the experience of child abuse and aggression is more likely with the mediation of shame.

Findings showed that there is a relationship between the experience of child abuse and proneness to shame in adolescence. This result is consistent with the results of the studies of Tangney (2002), Tangney and Dearing (2002), Deblinger and Runyon (2005), Mills (2003) and Stuewig and McCloskey (2005). There are different theories about how parents make individual feel ashamed (Hoglund and Nicholas, 1995; Reimer, 1996). One view is that rejectionist and punitive behaviors reinforce the child's sense of shame. Punitive and rejectionist behaviors lead to feelings of helplessness and shame in the child. Criticism that focuses on one's personality leads to an increase in feelings of shame (Burhans and Dweck, 1995). Hostile parenting sends the message to the child that it is not good enough. These negative beliefs are a major cause of shame (Lewis, 1992).

The results of the present study showed that although there is a significant positive relationship between shame with the physical and psychological emotional dimension of child abuse, but shame has no significant relationship with the dimension of neglect. In this study, among the types of child abuse, there is a greater relationship between psycho-emotional abuse and shame. Evidence to support this claim is a study that found that children with a history of psychological harassment (compared to sexual harassment and neglect) had a more negative self-image than children who did not experience harassment (one of the criteria for shame, Toth Et al., 1997). Of course, in the same study, it was stated that the neglected children, although they had a less negative self-image, did not seem to have a positive self-image. This reflects the real life of these children in which they receive very little attention, while children who have been physically abused may sometimes receive positive feedback from their parents, despite the traumatic



parenting they have experienced. In fact, the neglect experienced by these children delays their development. Thus, neglected juveniles have expressed less shame because of the shameful nature of presenting a negative self-image. However, these people do not have a positive self-image and the possibility of anger and aggression is still present in this group of juveniles.

The results of the present study showed that proneness to shame mediates the relationship between child abuse and aggression. This result is also consistent with the results of Bennett et al. (2005), Gold et al. (2011). Children who have been abused are significantly less proficient in regulating their emotions (Chen, 2012; Stevens, 2013). Lack of emotion regulation skills is closely related to negative reactions to some emotional experiences (Eisenberg, 2000; Lemerise and Arsenio, 2000). Negative reactions to some emotional experiences include feelings of shame, anger, and aggression. Thus, these individuals, those who were abused as children, are significantly more likely to engage in negative emotions such as shame and anger (Gold et al., 2011). Over time, as a result of repeated experiences of painful emotions such as shame, a person becomes more prone to experience shame than other emotions (Lemerise and Arsenio, 2000). Therefore, it can be concluded that the experience of harassment in childhood is associated with the emotion of shame due to emotional dysregulation which leads to aggression.

According to the findings of this study, no relationship was found between empathy and other variables (proneness to shame, aggression and experience of child abuse). Although some studies have confirmed the relationship between empathy with the variables of shame, aggression and child abuse, however, this study has not found a significant relationship between empathy with these three variables. In this regard, we can mention a few points:

Miller and Eisenberg (1988) suggested that some children's aggression may be due to a lack of information processing and misinterpretation of social cues, rather than a lack of empathy. In fact, they may have high proneness to shame due to the experience of child abuse in their family, and high proneness to shame is associated with skepticism,

hypersensitivity to threatening symptoms, and anger (Tangney, et al., 1992). However, Bandura et al. (1975) have stated that children who are abused by their family are more likely to become insensitive to human emotions in adulthood. Since these children did not observe empathetic behaviors in such situations, they did not learn them. In general, abused children do not have sufficient skills to regulate their emotions (Chen, 2012; Stevens, 2013), which is associated with difficulty in recognizing the emotions of others. Therefore, it can be concluded that the reason for the inconsistency of individuals' answers in the empathy questionnaire was due to the inability to understand the situation described in the question. In other words, participants gave different answers to similar questions, which in general showed the inability of these children to understand the questions.

In the present study, it is likely that juveniles had difficulty responding to the Davis Interpersonal Reactivity Questionnaire. This is because these juveniles often had low literacy and relatively low IQs, and since the questionnaire was designed for normal adults, it is likely that these juveniles did not fully understand the meaning of some of the questions or were confused in answering them. Although the questions were slightly simplified and read to the juveniles by a resident psychologist, however, the disproportionate and confusing answers to the questions in each person's questionnaire indicate their difficulty in understanding the questions.

There is also evidence for mediation of empathy between the experience of child abuse and aggression. For example, in a paper by Simons et al. (2002), they found that adults who had experienced sexual harassment as a child or had been exposed to pornography were more likely to commit sexual crimes against children because of their lack of empathy for the child victim. Adults who have experienced physical abuse as children are also more likely to commit sexual crimes against women because of their lack of empathy for female victims. In another study conducted by Ismailpour (2018), empathy mediates the relationship between perceived parenting variables and aggression (empathy had a negative relationship with these two variables). In the two studies mentioned, the empathy scale was

different from the scale used in this study. Therefore, it may be concluded that the Davis Interpersonal Reactivity Scale was not appropriate for the samples.

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