



Prediction of self-injurious behaviors based on parent-child relationship and emotional regulation in adolescents

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ABSTRACT

Background and Aim: Adolescence is an important period of human development that is accompanied by biological-neurological, hormonal, physiological and social changes. During this period, teenagers deal with many stressful factors. The present study was conducted with the aim of predicting self-injurious behaviors based on parent-child relationship and emotional regulation in adolescents. **Methods:** The present study method was descriptive-correlation. The statistical population of this research was formed by students of the second period of high school in Tehran in the academic year of 2020-21. The sample size was estimated to be 280 people based on Kramer's method and they were selected by cluster random method. The sample subjects completed three questionnaires: Deliberate Self-Injury (DSHI), Parent-Child Relationship Assessment (PCRS) and Cognitive Regulation of Emotion (CERQ). Multiple regression analysis was used to analyze the data. **Results:** It was indicated that father/child relationship negatively and significantly predicts self-injurious behaviors ($P < 0.001$). Adaptive strategies of cognitive regulation of emotion negatively and non-adaptive strategies of cognitive regulation of emotion positively and significantly predict self-injury behaviors ($P < 0.001$). **Conclusion:** Based on the results, it can be concluded that in order to prevent and control the self-injurious behaviors of teenagers, it is necessary to pay attention to the parent-child relationship and emotional regulation.



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Introduction

One of the most common problems among teenagers today is self-injurious behavior, which is widely found in all cultures and is defined as the deliberate destruction or alteration of body tissues without obvious intent and suicide (Klonsky, 2011). Self-injurious behaviors appear in different ways. Self-harm or self-destruction is a term that encompasses all behaviors that lead to intentional harm with any level of mortality; Therefore, this term includes all the words that are used (Buresova, 2016). Favazza (1998) has divided self-injurious behaviors into three categories: 1- Severe self-injurious behaviors, which are observed in people with a mental health condition and as a result of which the person causes severe damage to his own body tissues, such as amputation. 2- Stereotyped self-injurious behaviors (involuntary) that are observed in mentally retarded people, autism, or Tourette syndrome. In such a situation, the person involuntarily and repeatedly hits himself (such as banging his head against the wall). 3- Superficial self-injurious behaviors, which are the most common type and are done under the influence of fashion or other factors: such as scratching and cutting the skin, picking wounds, nail-biting, cosmetic surgeries, and skin carving (the focus of the current research is more on the recent category of self-harming behaviors, especially in teenagers) (Klonsky, 2007).

Studies that have been conducted recently on qualitative transformations and parent-child functioning have brought about changes in psychologists' views on how these relationships are related to adolescent psychopathology (Bronstein & Cote, 2013). According to the evidence, the biggest differences between parents and children occur during the child's adolescence. And one of the important issues of this period is the problem of their relationships and communication with their parents (Ganji, 2018). Cognitive emotion regulation is considered one of the processes through which people adjust their emotions to respond to conscious and unconscious environmental expectations and is a particular form of self-regulation. Overall, emotion regulation is one of the basic factors of well-being and successful activity and plays an important role in adapting to stressful events in life (Aldao, Nolen-Hoeksema, and Schweizer, 2010; Sadri Demirchi, Asadi Shishegaran, and Esmaili Ghazi

Valloui, 2015). Emotion regulation can be defined as processes through which people can influence their emotions and how they experience and express those (Gross, 1998). In this regard, Thompson (1994) also believes that emotion regulation is internal and external processes responsible for controlling, evaluating, and changing a person's emotional reactions to achieve his goals. A review of the literature and psychological studies shows that emotion regulation is an important factor in determining health and having successful performance in social interactions (Dollar and Calkins, in Benson, 2020) and deficits in it with endogenous disorders (such as depression, anxiety, social isolation) and externalizing disorders (such as delinquency, and aggressive behavior) are related (Narimani & Abbasi, 2018). Therefore, the existence of such a worrisome problem that can bring heavy negative consequences in the lives of teenagers and, consequently, the family and society prompted the researcher to investigate the factors that play a role in the occurrence of self-injurious behaviors in teenagers and a model that measures the role of internal and external factors in these behaviors. In this way, the basic question can be answered whether self-injurious behaviors can be predicted based on the parent-child relationship and emotional regulation.

Method

The present research method was a descriptive correlation. High school students in Tehran in the academic year 2020-2021 formed the statistical population of this research. In order to determine the sample size, considering that this research was a correlational type, Cramer's formula was used, and 40 samples should be considered for each predictor level. The parent-child relationship includes 4 levels and emotional regulation strategies in this research. They included 2 levels, which became 6 levels in total. As a result, the appropriate sample was considered $6 \times 40 = 240$, and 280 people were selected as a sample. The sampling method was done by random cluster sampling. In this way, out of the 22 regions of Tehran, 5 regions were randomly selected (lottery), and then in each region, based on the names of high schools, randomly (lottery) 2 High schools (one high school for girls and one high school for boys) was selected.

Tools

1. Deliberate self-harm inventory (DSHI): Gratz's (2001) deliberate self-harm questionnaire was used to measure intentional self-harm. The scoring of this questionnaire is yes (score 1) and no (score 0). Gratz obtained Cronbach's alpha coefficient of 0.84 and its reliability coefficient after two weeks (test and retest) of 0.68. In the ongoing research (2012), first, the scale was translated from English to Farsi, then the Persian text was translated back to English using the reverse translation method. Finally, by comparing the two texts of the questionnaire, the necessary corrections were made, and the final form was prepared. The result of the preliminary study among 40 female students showed that the scale has acceptable reliability for female students (Cronbach's alpha method, 0.71). The content validity of the test was verified by asking experts in educational sciences and psychology (Peyvasteh gar, 2013).

2. Parent-Child Relationship Assessment Scale (PCRS): This scale is a 24-question tool to measure the opinions of young people about their relationship with their parents. This scale was created by Fine, Morlend Schwebel (1983), and this tool is suitable for measuring the relationship of any child and even minors with their parents. In the Iraqi research (2007), to confirm the validity of the parent-child relationship assessment questionnaire, it was determined that this questionnaire has good predictive validity by distinguishing between children of divorced families and children of healthy families. The reliability of the parent-child relationship scale has been reported with Cronbach's alpha coefficient of 0.61 to 0.96 for the mother relationship subscales (Fine et al., 1983, quoted by Sanai Zaker, 2017). The Cronbach's alpha coefficient value was calculated in Kordlo's research (2010) as 0.95 for male students and 0.94 for female subjects.

3. Cognitive Emotion Regulation Questionnaire (CERQ): It is a self-assessment questionnaire designed in 1999 by Garnefsky, Kraaij, and Spinhoven and published in 2001. This questionnaire contains 11 items and measures the cognitive regulation strategies of emotions in response to life-threatening and stressful events on a five-point scale from 1 (never) to 5 (always). The alpha coefficient for the subscales of this questionnaire was reported by Garnefsky and Kraaij (2006), in the range of 0.62 to 0.85. Furthermore, based on the Iranian sample, this questionnaire by Besharat and

Bazazian (2013) has sufficient reliability and validity.

Results

The results show a significant negative relationship between the child's mother's and father's relationship with adolescent self-injury behaviors ($P < 0.01$). Also, there is a significant negative relationship between adaptive emotion regulation strategies and self-harm behaviors and a significant positive relationship between non-adaptive emotion regulation strategies and self-harm behaviors ($P < 0.05$). Multiple regression analysis was used to predict self-injurious behaviors based on parent-child relationship variables and emotion regulation strategies.

The results show that among the variables included in the regression equation, only the father-child relationship had a significant relationship with self-injurious behaviors in the equation. It shows that this variable could explain a total of 8.3% of the variance of the changes related to the variable of self-injurious behaviors ($P < 0.01$). Moreover, the results indicate that the variables included in the regression equation (emotional regulation strategies) found a significant relationship in the equation. It shows that adaptive and non-adaptive strategies can explain a total of 7% of the variance of the changes related to the variable of self-injurious behaviors ($P < 0.01$).

Conclusion

The present study aimed to predict self-injurious behaviors based on the parent-child relationship and emotional regulation. The results showed that father-child relationship negatively and significantly predicts self-injurious behaviors. The findings are in line with the results of Ayubi et al. (2013), Taghizadeh (2012), Widig and Nock (2007), Ruth and Heath (2002). Knock (2008) has identified three categories of risk factors: distant, intrapersonal, extrapersonal, and proximate risk factors that lead to the initiation and continuation of self-harm. Distant risk factors include physiological arousal levels, biological disorders, childhood abuse, family maltreatment and hostility, separation, and childhood loss. These distant risk factors lead to intra-personal and interpersonal risk factors in such a way that they experience highly disturbing feelings and perceptions, cannot tolerate disturbances without solving social problems, and have poor communication skills. These defects make them unable to show appropriate reactions to the situation in stressful situations,

and some teenagers use self-harm to overcome these disturbances. Usually, children also grow up with positive moral behaviors, respect for others, and motivation to progress. The impact and influence of the family on various aspects of the social development of children are countless. Children's self-esteem and sense of self-worth are strongly affected by the attitudes of family members, especially parents, towards them. It seems that the negative behaviors of teenagers, including their self-harming behaviors, are also affected by the quality of parents' relationships with their children. (Beheshti, 2018). According to another part of the findings, adaptive strategies of cognitive regulation of emotion negatively and non-adaptive strategies of cognitive regulation of emotion positively and meaningfully predict self-injury behaviors. The findings are consistent with the results of Khanipour et al. (2016).

Numerous studies show that teenagers' self-harming behaviors can be explained based on emotion regulation patterns (Peh et al., 2016; Pisani et al., 2012). In other words, the common denominator in all self-harming behaviors is the use of Unhealthy strategies are emotion regulation. Cognitive emotion regulation is considered one of the processes through which people adjust their emotions to respond to conscious and unconscious environmental expectations and is a particular form of self-regulation. In this regard, Thompson (1994) also believes that emotion regulation is internal and external processes responsible for controlling, evaluating, and changing a person's emotional reactions to achieve his goals. According to the emotional regulation model, the most important motivation in self-injurious behaviors is the regulation of unpleasant emotions (Chapman, Gritz, and Brown, 2006). Cognitive emotional regulation represents the range of processes through which people can change emotions' nature, fluctuation, and duration, which is suitable for understanding emotional disorders. People with self-harm disorder tend to experience their negative emotions uncontrollably and often lack the necessary skills to manage and regulate these intensely emotional experiences, leading to increased physiological arousal and decreased self-control. In this way, people dealing with anger and emotional regulation may be considered important in understanding its relationship with self-harm behavior (Azad, Abdulahi, and Hasani, 2015).

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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