

# The Effect of Emotion Regulation Training on Self-conscious Emotion of Parents with Autism Children

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**Abstract:** This study was conducted with the aim of evaluating the effect of emotional regulation training on the self-conscious emotions of parents with autism children. In this study, all parents with autism children were selected by cluster randomized sampling method in schools of Tehran. The subjects were randomly divided into two groups of control (15 couples) and experimental (15 couples) in a pretest and posttest design with a control group. In the pre-test stage, all subjects were assessed using a self-conscious emotions questionnaire. Then, the experimental group participated in 8 training sessions in the form of emotion regulation training based on the Gross model. After the completion of the training sessions in the experimental group, both groups were re-assessed by the research tool in the post-test stage. Finally, the results of the study were analyzed using SPSS 19 software. The results of this study revealed a significant difference between the two groups in terms of scores of shame and guilt ( $F = 4.94$ ,  $P < 0.05$ ). Therefore, it can be concluded that emotion regulation training significantly improves the self-conscious emotion of the parents of experimental group compared to the control group. The results of this study show that teaching adaptive emotion regulation strategies through emotion acceptance rather than emotion suppression and emotion re-evaluation rather than rumination reduces the severity and duration of negative emotions in clients. The self-conscious emotions of shame and guilt are no exception in this regard and the teaching of emotion regulation strategies reduces the severity and duration of the experience of these emotions in people.

**Keywords:** Emotion Regulation, Self-conscious Emotion, Parents, Child with autism

## INTRODUCTION

Self-conscious emotions are a special group of emotions, which help people move successfully in the social environment. In self-conscious emotions, people evaluate themselves from others' perspectives. Self-conscious feelings include feelings of shame, guilt and pride. In fact, these emotions monitor our behavior in our interaction with others and guide us towards the social and moral correction of our misconducts and misbehaviors (Muris and Meesters, 2014). According to Lewis and Sullivan (2005), self-conscious feelings include a review of your performance. These feelings gradually evolve as children grow and help people to behave desirably in social and intimate relationships. However, if these feelings are not regulated properly, they will lose their adaptive value and the person will be mentally affected and this usually happens at a young age (Lewis and Sullivan, 2014). A close look at the diagnostic and statistical criteria of the American Diagnostic and Statistical Manual of Mental Disorders shows that most of the symptoms, such as inappropriate emotion, chronic concern, avoidance, and negative emotion include disturbance in emotional regulation. Clinical importance of emotion regulation is increasing in research and it is more evident in

families in which the child needs special care. There is a consensus that the person with a disability to stay within the family and to be supported (Gross, 2007). The emotion regulation is associated with many outcomes of physical, social and physiological health (Gross, 2007). In contrast, it is hypothesized that the failure in the regulation of emotions is the mechanism that causes many moods and anxiety disorders (Campbell-Sills & Barlow, 2007). A review of the literature suggests that the parents of children with autism spectrum disorders are more exposed to psychological pressures caused by having a disabled child than the parents of children with other psychiatric disorders and it can make them prone to psychological disorders (Kuhn & Carter, 2006). Moreover, results of many studies show that children with autism spectrum disorder suffer from internalizing and externalizing problems, which are rooted in their emotional regulation problems (Mazefsky, 2013). These problems, in addition to affecting the quality of life of these children, compromise the health and well-being of the family (Gadow et al., 2004). Hence, the present study aims to evaluate the effect of emotion regulation training on the self-conscious emotion of parents with autism child to fill the research gap and take steps towards improving the quality of life of families with children with autism spectrum disorders.

## Methodology

The research population included all parents of children with autism who were willing to participate in the study and their children were studying at the Autism School in Tehran. A total of 30 couples were selected from Torab, Ayin-e Mehr Varzi and Besharat schools by cluster randomized cluster sampling. Then, they were randomly assigned to the experimental group (n=15) and the control group (n=15). Then the experimental group received emotion regulation training. The research tool in this study was the self-conscious emotions questionnaire. This tool is a 16-item questionnaire asking the questions in the form of visual scenarios (for example, the respondent is asked to imagine that he or she has passed over a small animal when driving on the street). Then, he or she is asked to express the possibility of the experience of described reactions and potential feelings, which reflect the feelings of shame, guilt, pride in self, and pride in behavior, externalizing, and indifference.

For the first time, Wagner, Fletcher & Grarmzow (1992) designed this questionnaire based on the interviews with different populations and reported its Cronbach's alpha of 0.69 and 0.74, respectively, for the subscales related to shame and guilt. In addition, the test-retest reliability of this test was reported 0.85 for shame and 0.74 for guilt. In Iran, Anushei has translated this test and two domestic studies have reported Cronbach's alpha coefficient of 0.79 for shame and 0.63 for guilt (Atri Fard, Azad Fallah and Ajei, 2006). SPSS 19 software was used to analyze the data. To analyze the data, the demographic characteristics of the participants were first examined through the frequency tables and charts. Then, the descriptive statistics of mean and standard deviations of the participants were reported in the research variables and finally, multivariate and one-variable covariance analysis was used to analyze the data.

## Results

The study sample included 30 women (50%) and 30 men (50%). In terms of education, 36.6% of the subjects had bachelor level of education, 30% had a diploma, 11.7% had an associate degree, 8.3% had a master degree and 3.3% had a Ph.D. degree.

Table (1) presents the descriptive statistics of the research variables in the experimental and control groups in the pretest and posttest stages. The results of Table (1) show that in terms of self-conscious emotion and its components, including shame and guilt, subjects of the experimental group obtained a lower mean score in the post-test stage compared to the pre-test of the control group. Despite giving a general insight of therapeutic intervention, these cases do not provide us with accurate information. Therefore, a proper statistical test should be used to examine the significance of these differences.

**Table 1-** Descriptive statistics of the research variables in the experimental and control groups in the pre-test and post-test stages

Variable	stage	Control group		Experimental group	
		mean	SD	mean	SD
Self-conscious emotion	pretest	333.84	124.21	333.119	259.24
	posttest	466.104	710.22	633.85	912.12
shame	pretest	133.40	149.10	100.58	298.14
	posttest	566.52	735.13	466.39	851.6
guilt	pretest	900.43	986.11	233.61	066.11
	posttest	900.51	629.10	166.46	392.9

To examine the normality of data, Kolmogorov Smirnov was used in this study. Results obtained for all data were higher than 0.05 and as significance value of Kolmogorov-Smirnov is greater than 0.05, it can be stated that the assumption of normality is confirmed for the final analysis. The Levene test was also used to examine the homogeneity of variances assumption in this study. The results of the Levene test were also obtained higher than 0.05 for all data. As significance value of the Levene test is higher than 0.05 for variables, it can be stated that a homogeneity of variances assumption is confirmed for the final analysis. Moreover, the results of analysis of variance for analyzing the homogeneity of slope regression showed that since the significance of the analysis of variance analysis is higher than 0.05, it can be seen that there is a homogeneity of variances assumption confirmed for performing the final analysis.

The main hypothesis of this study was that emotion regulation training affects the self-conscious emotion of parents with autism children. To answer this hypothesis, with regard to the existence of two dependent variables (shame and guilt) and also the existence of an independent variable (group) that has two levels (control group and experimental group) with the covariate variable (pre-test), Multivariate covariance analysis test was used (Table 2).

**Table 2-** Results of multivariate covariance analysis of post-test scores of shame and guilt in the control and experimental groups

	value	F	Df	Degree of freedom error	P	ETA <sup>2</sup>
Pillai's Trace	541.0	415.32	2	55	001.0	541.0
Wilks Lambda	459.0	415.32	2	55	001.0	541.0
Hotelling's Trace	179.1	415.32	2	55	001.0	541.0
Roy's Largest Root	179.1	415.32	2	55	001.0	541.0

Considering the significance of the box test ( $F = 4.946$ ,  $P < 0.05$ ), we decided to use the values of the Pillai's Trace for the comparison of the groups. As seen in Table 2, the significance level of the Pillai's Trace test suggests that there is a significant difference between the two groups in terms of scores of shame and guilt. Table (3) presents the results of the Test of Between- Subject Effects to determine the differences separately for the dependent variables.

**Table 3-** Test of Between- Subject Effects on shame and guilt scores in the control and experimental groups

Dependent variable	SS	Df	MS	F	P	ETA <sup>2</sup>
shame	062.4943	1	062.4943	919.62	001.0	529.0
guilt	565.1700	1	565.1700	996.24	001.0	309.0

According to the results of Table 3, there was a significant difference between the control and experimental groups in terms of the components of self-conscious emotion (shame and guilt).

Table 4 presents the means and adjusted standard errors of the research variables in the two groups.

**Table 4-** Mean and adjusted standard error of the variables of shame and guilt in two groups of control and experimental

variable	group	index	
		mean	Standard error
shame	control	590.57	854.1
	experimental	444.34	854.1
Guilt	control	821.55	725.1
	experimental	245.42	725.1

As shown in Table 4, the adjusted mean of the experimental group compared to the control group in the shame and guilt variables was significantly lower than that of the control group, indicating the effectiveness of the emotion regulation training.

### Discussion and Conclusion

The results of the multivariate covariance analysis to test the hypothesis of the effect of emotion regulation training on the self-conscious emotion of parents with autism child showed that emotion regulation training significantly improved the self-conscious emotion of shame and guilt in parents of autism children compared to the control group. These results are in line with the results of the research conducted by Neacsiu, Rompogren, Eberle & McMahon (2018) and Paulus, Vanwoerden, Norton & Sharp (2016). In explaining these findings, it can be stated that the self-conscious emotions of shame and guilt, despite some differences with the primary emotions (such as happiness and sorrow), are similar to other emotions due to their emotional nature. Thus, it can be argued that the self-conscious emotions of shame and guilt, as other emotions, can be problematic from two aspects. The first aspect is severity and second aspect is the duration of emotion experience. Individuals may deeply experience the emotions of shame or guilt or may experience these emotions for long hours and successive days. In such cases, emotion regulation training through strategies such as emotion acceptance, emotion re-evaluation, preventing emotion suppression, stopping rumination and concern can reduce the severity and duration of experience of self-conscious emotions of shame and guilt. Most often, clients want to be able to reduce negative emotions and regulate the positive emotions at higher level. In some cases, increasing the negative emotions (for example, increasing anger in order to be courageous in a relationship) or reducing the positive emotions (for example, resisting against the temptation of laughter during a serious work meeting; Tamir, Mitchell, Gross, 2008) can be quite useful. Therefore, regulating all kinds of emotions in the parents of these children was used to improve the self-conscious emotions. Training adaptive emotion regulation strategies by adopting emotion acceptance approach rather than its repression and emotion re-evaluating rather than rumination allows clients to reduce the severity and duration of these emotions. The self-conscious emotions of shame and guilt are no exception in this regard and training emotion regulation strategies reduces the severity and duration of the experience of these emotions and improves individuals.

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