

The Relationship between Childhood Maltreatment and Emotional Dysregulation in Self Mutilation: An Investigation among Substance Dependent Patients

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ABSTRACT

Introduction: The present study aims to examine the role of emotion dysregulation and childhood maltreatment in self mutilation (SM) of substance dependent patients. Specifically, the present study examined whether emotion dysregulation and its dimensions, and childhood maltreatment and its dimensions were associated with SM. The relationship between emotion dysregulation and childhood maltreatment was also investigated.

Methods: The sample of study consisted of 55 alcohol dependent and 24 opiate dependent patients (n=79). Substance dependence was diagnosed by means of the Structured Clinical Interview for DSM-IV-TR (SCID-I), Turkish version. Childhood Trauma Questionnaire (CTQ) and Difficulties in Emotion Regulation Scale (DERS) were used.

Results: Findings indicated that substance dependents with SM and without SM were differentiated in terms of overall emotion dysregulation.

Results also suggest the relevance of three specific dimensions of emotion dysregulation to SM: Difficulties engaging in goal-directed behaviors when experiencing negative emotions, difficulties controlling impulsive behaviors when experiencing negative emotions, and limited access to effective emotion regulation strategies. These dimensions were predicted from childhood emotional maltreatment and neglect. It is also revealed that substance dependents with SM had higher points than those without SM on emotional childhood maltreatment and neglect, physical childhood maltreatment.

Conclusion: Results were supported by the literature suggested that self-mutilation functions as a emotional regulation strategy. Findings also suggested that self-mutilation is related to early relationships take place in family environment in which individuals grow up.

Keywords: Substance dependency, self-mutilation, emotional dysregulation, child abuse, child neglect

INTRODUCTION

Self-mutilation is described as "one destroying her/his own body tissue deliberately without an intention of committing suicide" (1). Similarly, it is emphasized within the description of *self-injury* that it does not occur involuntarily and that it lacks an explicit intention of committing suicide (2). The description of *deliberate self-harm* considerably resembles these two descriptions, but repetitive self-cutting behavior is discretely separated from this description (3). On the other hand, it has been observed that the description of "self-mutilation" is commonly used within the studies conducted in Turkey. Considering that the descriptions are notably similar to each other, the description of *self-mutilation* will be used in this research so that the description can contain all the behaviors discussed within this research.

It is understood that self-mutilative behaviors are characterized by repetitive non-fatal actions that are intended to destroy or change body tissue without an intention of committing suicide (1,2,4) if empirical studies are reviewed. In light of these studies, the presence of "cutting/scratching arms or other body parts," "burning the arms and other body parts with cigarette or other means," "tearing out hair," or "hitting the head, fist, or other body parts violently on firm ground" are all regarded as self-mutilation.

It was reported that these behaviors are encountered in 4% of the general population and in 21% of the clinical population and that the rate of prevalence is equal between women and men (5). According to the results of different studies, the rate of self-mutilation among women who mutilated themselves at least once in their life differs between 8.8% and 72% (4,6,7,8). This rate among men is 44% (9) and among adolescents differs between 24.4% and 24.5% (10,11). Until recently, clinicians qualified self-mutilation as a behavior encountered among adolescents and women. However, recent findings indicate that self-mutilation is approximately the same with respect to the frequency of prevalence between women and men (7). From this point of view, we studied alcohol/substance-dependent male participants who are known to problematically experience self-mutilative behaviors. Determining the rates within this sample was set as one of the goals of this research.

Studies conducted on the issues of risk factors about self-mutilation emphasize the role of sexual abuse experienced especially during childhood on self-mutilative behavior experienced during adulthood (12,13). Klonsky and Moyer (14) pointed out in the meta-analysis



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study they conducted that sexual abuse experienced during childhood may not play a role in the occurrence and continuance of these behaviors. Theoretical literature suggests that rather than sexual abuse, childhood experiences occurring in the family system and relationships with caregiver or caregivers have a strong relationship with self-mutilative behaviors (12,15,16). Accordingly, this situation indicates that emotional abuse, negligence, and physical abuse experienced during childhood are variables that should be discussed in studies in terms of the risk factors of self-mutilative behavior. Although the studies dealing with these variables are scarce in comparison with the studies focusing on sexual abuse, they suggest that emotional abuse, negligence (9,17,18), and physical abuse (9,19) can also be related to self-mutilation. According to Linehan (16), emotional dysregulation underlies self-mutilative behaviors. In this sense, emotional dysregulation is defined to the extent of not having awareness about emotions, not understanding and not accepting emotions, having difficulties engaging in goal-directed behaviors when experiencing negative emotions, having difficulties controlling impulses when experiencing negative emotions, and having difficulties engaging adaptive emotion regulation strategies (20). Similarly, many researchers conceptualize self-mutilative behaviors as emotion regulation strategies (21,22). Despite this theoretical interest on the central role of emotional dysregulation in self-mutilative behavior, a limited number of studies examined this relationship by discussing the issue directly. Moreover, the findings of these studies suggest that emotion regulation disability has a relationship with self-mutilation (4,9). On the other hand, there is no study discussing these two factors together. However, there are some indicators available showing that emotional abuse including critical, insulting, and humiliating attitudes of parents can have serious negative effects (23,24) and that these negative effects can continue to exist during adulthood (25,26,27).

When studies conducted in the field of risk factors of self-mutilation are reviewed, childhood experiences of trauma (sexual abuse, physical abuse, emotional abuse, and negligence) and emotional dysregulation come into prominence. However, the studies evaluating these risk factors together and discussing the relationships between each of these factors are inadequate. Therefore, the aim of this research was to study the relationship between self-mutilation and childhood experience of trauma and emotional dysregulation within a sample consisting of alcohol/substance-dependent participants. The question "which childhood experiences predict the sub-dimensions of emotional dysregulation for alcohol/substance addicts who have been identified to mutilate themselves frequently" was tried to be answered. There is no research examining emotional dysregulation in alcohol/substance-dependent samples in literature. Examining emotional dysregulation in this research is thought to contribute to literature because of the originality of this research.

METHODS

Sample

The research was conducted between the dates July 2009 and February 2010 in Ankara Numune Training and Research Hospital, Alcohol and Substance Addiction Treatment Center (AMATEM in Turkish). This research was ethically approved, and the permission required for conducting this research was given by the Administration of this institution upon an examination of the research process. Data regarding the research was collected from the inpatient sample. The participants consist of people who met the criterion of alcohol and substance addiction according to DSM-IV-TR after a clinical interview conducted by a psychiatrist. Participants who meet the diagnosis criteria for Axis I and/or II disorders were excluded from the scope of this research. Adult, 18 aged or older, males at least literate were included in this research. All the participants were males.

Practices related with the research were realized with 101 participants in the first phase, but 10 participants were later excluded from the research because it was understood that they did not meet the criteria of the research and that they did not complete the scales properly. Twelve participants were excluded from the analysis because their frequency of self-mutilation was below the cut-off point. Therefore, the sample for this research consisted of 79 participants (55 alcohol addicts and 24 substance addicts).

Procedure

Inpatients in AMATEM were invited to participate in the research. The inpatients who met the criteria of the research and who agreed to participate in the research were told about the general aim and the questions that they would answer in the research scales. A written consent form and verbal consent was received from all the participants who decided to participate in the research to indicate that they participated in the research voluntarily. Later, the questions in the data collection form were asked to the participants in the form of a semi-structured interview. After the interview, the participants completed the scales individually.

Measures

Demographic information form: This form consisted of 18 questions. The questions were asked to the participants in the form of a semi-structured interview. The form contains questions regarding the participants' demographic information, the type of substance they used, and the span of substance use. In addition, there were questions whether the participants exhibited self-mutilative behaviors; if they did so, in which way and how many times they did exhibit that behavior and whether a suicide attempt history was present.

Childhood trauma questionnaire: The Childhood Trauma Questionnaire (CTQ) was used to investigate the participants' trauma experienced before they were 18 years old. This questionnaire is a self-report questionnaire prepared by Bernstein and colleagues (28) for a retrospective investigation of trauma experiences by taking child and adolescence abuse; physical, emotional, and sexual abuse; and emotional or physical negligence dimensions into consideration.

The validity and reliability of the Turkish version of the questionnaire was conducted by Aslan and Alparslan (29), and this version was reported to be a valid and reliable measure. Dimensions of the questionnaire are emotional abuse and emotional negligence (EA-EN), physical abuse (PA), and sexual abuse (SA). The Cronbach α value of the questionnaire was found to be 0.96. It was reported that the internal consistency coefficients of childhood trauma experience dimensions differed between Cronbach $\alpha=0.94$ and 0.95 (29).

Difficulties in emotion regulation scale: Difficulties in Emotion Regulation Scale (DERS) was used in this study to determine and measure the participants' difficulty of emotion regulation. DERS that was developed by Gratz and Roemer (20) consists of 36 items that come under the dimensions having no awareness about emotions (AWARENESS), having no understanding of the emotions (CLARITY), non-acceptance of emotions (NON-ACCEPTANCE), limited access to emotion regulation strategies that are known to be effective (STRATEGIES), having difficulties controlling impulses when experiencing negative emotions (IMPULSE), and having difficulties engaging in goal-directed behaviors when experiencing negative emotions (GOALS).

A validity and reliability study was done regarding the Turkish version of this questionnaire, and it was reported to be a valid and reliable assessment instrument (30). The internal consistency coefficient was found to be Cronbach $\alpha=0.94$. Internal consistency coefficients of difficulty in 9

Table 1. Demographic variables

	Addicts with SM (n=28)		Addicts without SM (n=51)	
	Frequency	%	Frequency	%
Marital status				
Single	11	39.3	2	3.9
Married	13	46.4	35	68.6
Divorced	4	14.3	14	27.5
Educational background				
No education	0	0	1	2
Primary school	12	42.9	13	25.5
Secondary school	9	32.1	12	23.5
High school	5	17.9	19	37.3
Undergraduate and graduate school	2	7.1	6	11.7
Accommodation				
Alone	6	21.4	9	17.6
With parents or family	22	78.6	41	80.4
Homeless	0	0	1	2
In which city region he lives				
Urban	21	75	39	76.5
Rural	7	25	12	23.5
Working status				
Employed	12	42.9	23	45.1
Unemployed	16	57.1	14	27.5
Retired	0	0	14	27.5
Is there anyone in the family who mutilates his/her self?				
Yes	2	7.1	2	3.9
No	26	92.9	49	96.1
Is there anyone in the family who commits suicide?				
Yes	4	14.3	3	5.9
No	24	85.7	48	94.1
Age				
Average	33.86	46.0		
Standart deviation	10.03	8.03		

emotion regulation sub-dimensions differed between Cronbach $\alpha=0.90$ and 0.75. Test-retest reliability was found to be 0.83.

RESULTS

The result of one-way multivariate analyses of variance showed that the diagnostic condition had no significant effect on the sub-dimensions of DERS and CTQ (Wilks' lambda=0.83, $F_{(6,72)}=2.40$, $p>0.05$ and Wilks' lambda=0.99, $F_{(3,24)}=0.06$, $p>0.05$, respectively). For this reason, the data collected from two separate diagnostic conditions were combined.

Thirty-nine of the 91 participants (42.9 %) reported that they mutilated themselves at least once in their life. However, previous studies indicated

that individuals who exhibited these behaviors at least five times in their life should be considered as individuals mutilating themselves frequently (31), and this cut-off point was used to determine self-mutilative behaviors that were found to be clinically significant (32). Because the frequency of self-mutilation for 12 of these 39 participants was below this cut-off point, these 12 participants were not included in the analysis.

According to this, the group containing substance addicts mutilating themselves frequently, consisted of 28 individuals. The average age of this group ($X=33.86$, $SD=10.03$) was significantly lower than the average age ($X=46$, $SD=8.03$) of the group that consisted of participants who did not mutilate themselves ($F_{(1,77)}=34.52$, $p<0.05$). The findings regarding the participants' demographic information is shown in Table 1.

One-way multivariate analyses of covariance (MANCOVAs) were performed to answer the question whether there was a significant difference between substance addicts who mutilated themselves frequently and those who did not. The self-mutilation status (mutilating oneself frequently and not mutilating oneself) was taken as the independent variable; the sub-dimensions of CTQ (emotional abuse and negligence, physical and sexual abuse) or the sub-dimensions of DERS (Awareness, Nonacceptance, Strategies, Impulse, Goals) were taken as dependent variables and age was taken as the covariate. Bonferroni corrections were made to prevent type I error, and $p<0.008$ was taken for the analyses conducted with the sub-dimensions of DERS and $p<0.02$ for the analyses conducted with CTQ. Average and standard deviation values regarding variables used in the analyses can be seen in Table 2.

The total score substance addicts who mutilated themselves frequently got ($X=110.28$, $SD=21.36$) was significantly higher compared with the those who did not ($X=92.27$, $SD=20.91$) ($F_{(1,76)}=10.94$, $p<0.05$). Self-mutilation status had a significant effect on the sub-dimensions of DERS (Wilks Lambda=0.77, $F_{(6,71)}=3.45$, $p<0.05$). It was seen that the substance addicts who mutilated themselves got significantly higher scores than those who did not in the sub-dimensions of strategies ($F_{(1,76)}=12.08$, $p<0.001$, =0.14), impulse ($F_{(1,76)}=14.46$, $p<0.001$, =0.16), and goals ($F_{(1,76)}=11.83$, $p<0.001$, =0.14) of DERS (Table 3).

Self-mutilation status was seen to have a significant effect on the sub-dimensions of CTQ (Wilks' lambda=0.78, $F_{(3,74)}=6.90$, $p<0.001$, =0.22). The substance addicts who mutilated themselves were seen to get significantly higher scores than those who did not in the sub-dimensions of emotional abuse and negligence ($F_{(1,77)}=16.73$, $p<0.001$, =0.18) and physical abuse ($F_{(1,77)}=12.14$, $p<0.001$, =0.14) of CTQ (Table 3).

When the averages were analyzed in general, the substance addicts who mutilated themselves were seen to get significantly higher scores than those who did not in limited access to the sub-dimensions of emotion regulation strategies (STRATEGIES), difficulties in impulse control when experiencing negative emotions (IMPULSE), and difficulties in goal-directed behaviors when experiencing negative emotions (GOALS) of DERS (Table 2). There is no difference between the two conditions with regard to the sub-dimensions of awareness, clarity, and non-acceptance. The substance addicts who mutilated themselves got higher scores in the sub-dimensions of emotional abuse and negligence and physical abuse of CTQ (Table 2). In the sub-dimension of sexual abuse, self-mutilation status was observed to have no significant effect.

One-way MANCOVAs revealed that the substance addicts who mutilated themselves frequently got higher scores than those who did not in most sub-dimensions of CTQ and DERS. Therefore, the question of to what

extent childhood trauma experiences predict the sub-dimensions of difficulty in emotion regulation among the substance addicts who mutilate themselves frequently was tried to be answered. For this reason, stepwise regression and linear regression analyses were conducted. Before the regression analyses, the correlation of each difficulty in emotion regulation

sub-dimensions with childhood trauma experiences was reviewed, and in accordance with this, only trauma experiences that showed a significant correlation with dimensions of difficulty in emotion regulation were included in the analysis (Table 4). Although the non-acceptance sub-dimension of DERS had a significant correlation with the physical abuse sub-dimension of CTQ, it was excluded from the analysis because there was no difference between the substance addicts who frequently mutilated and those who did not with regard to this sub-dimension.

Table 2. Averages and standart deviations for dependent variables

	Addicts with SM (n=28)		Addicts without SM (n=51)	
	\bar{X}	SD	\bar{X}	SD
DERS				
Awareness	13.54	4.14	12.45	3.44
Clarity	13.25	4.65	11.65	3.44
Nonacceptance	16	6.05	16.90	5.59
Strategies	25.50	6.37	19.14	6.48
Impulse	21.32	6.59	14.56	5.27
Goals	18	4.31	14.35	4.08
CTQ				
Emotional abuse and emotional negligence	55.00	2.78	40.84	2.06
Physical abuse	5.83	0.184	5.03	0.137
Sexual abuse	2.74	0.55	2.44	0.34

DERS: Difficulties in Emotion Regulation Scale; CTQ: Childhood Trauma Questionnaire; SD: standard deviation

Stepwise regression analysis with CTQ's was related to sub-dimensions of goals of DERS; univariate regression analysis for the sub-dimensions of strategies and impulse of DERS was conducted. The sub-dimension of goals of DERS as a dependent variable and sub-dimensions of emotional abuse and negligence and physical abuse of CTQ as independent variables were included in the stepwise regression analysis. In the univariate regression analysis conducted, the sub-dimensions of emotional abuse and negligence as independent variables and the sub-dimensions of strategies and impulse as dependent variables were included in the analysis.

As it can be seen from Table 5, the analysis results indicated that emotional abuse and negligence during childhood significantly predicted the goals sub-dimension of DERS ($F_{(1,27)}=4.87, p<0.05$). This sub-dimension of CTQ was seen to explain 12% of variance. According to this, the more the emotional abuse and negligence during childhood increased, the more difficult it became during adulthood to be goal-directed when experiencing negative emotions. In addition, it was understood that emotional abuse and negligence significantly predicted the strategies sub-dimension ($F_{(1,27)}=4.40, p<0.05$) and that they explained 11% of variance (Table 5).

Table 3. MANCOVAs for DERS and CTQ

s	Sum of squares	SD	Average square	$F_{(1,76)}$	η^2
DERS					
Awareness	19.77	1	19.77	1.43	0.02
Clarity	57.05	1	57.05	3.72	0.05
Nonacceptance	4.67	1	4.67	0.14	0.002
Strategies	508.21	1	508.21	12.08*	0.14
Impulse	485.14	1	485.14	14.46*	0.16
Goals	206.52	1	206.52	11.83*	0.14
CTQ					
Emotional abuse and emotional negligence	3573.19	1	3573.19	16.73**	0.18
Physical abuse	12.22	1	12.22	12.14**	0.14
Sexual abuse	0.75	1	0.75	4.19	0.05
Error					
Awareness	1052.32	76	13.85		
Clarity	1165.35	76	15.33		
Nonacceptance	2462.16	76	32.40		
Strategies	3197.03	76	42.07		
Impulse	2549.79	76	33.55		
Goals	1326.51	76	17.45		
Emotional abuse and emotional negligence	16674.74	77	216.55		
Physical abuse	73.36	77	0.95		

* $p<0.008$, ** $p<0.02$. DERS: Difficulties in Emotion Regulation Scale; CTQ: Childhood Trauma Questionnaire; SD: standard deviation

Table 4. Corelations between DERS and CTQ

Sub-dimensions	DERS					
	Awareness	Clarity	Nonacceptance	Strategies	Impulse	Goals
CTQ						
Emotional abuse and emotional negligence	0.150	0.188	0.351	0.381*	0.338*	0.397*
Physical abuse	0.054	0.150	0.471*	0.221	0.240	0.392*
Sexual abuse	-0.092	-0.292	-0.152	-0.158	-0.145	-0.208

*p<0.05. DERS: Difficulties in Emotion Regulation Scale; CTQ: Childhood Trauma Questionnaire

Table 5. Summary of regression analysis for sub-dimensions of CTQ predicting sub-dimensions of DERS

Dependent variable	Independent variable	β	T	R	R ²	Adjusted R ²	p
Goals	Emotional abuse and emotional negligence	0.40	2.21	0.40	0.16	0.12	0.04
Strategies	Emotional abuse and emotional negligence	0.38	2.10	0.38	0.14	0.11	0.04
Impulse	Emotional abuse and emotional negligence	0.39	2.15	0.39	0.15	0.12	0.04

DERS: Difficulties in Emotion Regulation Scale; CTQ: Childhood Trauma Questionnaire

According to this, the more the emotional abuse and negligence during childhood increased, the more difficult it became to access to emotion regulation strategies that are thought to be effective during adulthood. Finally, it is understood that emotional abuse and negligence predicted the impulse sub-dimension ($F_{(1,27)}=4.62, p<0.05$) and that they explain 12% of variance (Table 5). Accordingly, the more the emotional abuse and negligence increase during childhood, the more difficult it becomes during adulthood to control impulses when experiencing negative emotions.

DISCUSSION

In this study, relationships between self-mutilation and childhood trauma experiences and emotional dysregulation were examined in a sample consisting of male alcohol/substance addicts. Furthermore, which childhood trauma experiences predict the sub-dimensions of difficulty in emotion regulation for participants who were known to mutilate themselves was examined.

Results of the analyses indicated that when it comes to childhood trauma experiences, the substance addicts who mutilated themselves got higher scores than those who did not in the sub-dimensions of physical and emotional abuse and emotional negligence. In the case of sexual abuse, no significant difference between the two scores was observed. When it comes to difficulty in emotion regulation, it was observed that substance addicts who mutilated themselves frequently experienced more difficulty in emotion regulation than those who did. Besides, these individuals were observed to get higher scores for the sub-dimensions of strategies, goals, and impulse of difficulty in emotional regulation than the those who did not. The results of the analyses that were conducted in order the relationships between childhood trauma experiences and emotional dysregulation among the substance addicts mutilating themselves frequently indicated that emotional abuse and negligence experiences during childhood can be related to emergence of the sub-dimensions of goals, strategies, and impulse of difficulty in emotion regulation. These findings are discussed within the context of literature below.

Sexual abuse is reported to be the most important risk factor in terms of self-mutilative behaviors in many studies (12,13,33,34,35,36,37). That no significant difference was found between the substance addicts who frequently mutilate themselves and those who did not in terms of the scores obtained from childhood trauma experiences in this research seems to be

conflicting with these findings. This situation could stem from the limited number of participants. On the other hand, Klonsky and Moyer, in their meta-analysis study, suggest that sexual abuse during childhood does not play a primary role in the emergence and continuance of these behaviors (14). Furthermore, some studies that did not find a relationship between sexual abuse during childhood and self-mutilation are reported (18,38). Theoretical literature suggest that rather than solely sexual abuse during childhood, experiences taking place in a family system and relationship with caregiver(s) form a strong relationship with self-mutilation (12,16,15). Within this scope, given that the substance addicts who mutilated themselves frequently got higher scores from emotional abuse and negligence and physical abuse experiences during childhood and that no difference has been found in terms of sexual abuse scores shows that our findings are compatible with theoretical foresights. Furthermore, these findings are consistent with other research findings indicating the relationship of self-mutilation with emotional abuse and negligence (9,17,18,39,40) and physical abuse (9,18,19,41,42).

This research showed that the substance addicts who mutilated themselves frequently experienced more difficulty in emotion regulation than those who did not. This most basic finding supports the theoretical model that empirically emphasizes the central role of emotional dysregulation in self-mutilation (16). In addition, this finding is consistent with literature about the function of self-mutilation on emotion regulation (43) and with the findings of other studies that indicate the relationship between self-mutilation and emotional dysregulation (4,9,44).

Another finding suggested about emotional dysregulation among substance addicts who mutilated themselves frequently is that these individuals get higher scores in the sub-dimensions of strategies, goals, and impulse of DERS by comparison with those who do not. Until today, only a single study that examines which sub-dimensions of DERS are related to self-mutilation has been conducted. In the study conducted by Gratz and Roemer (4) on female college students, individuals who mutilate themselves frequently have higher scores in the strategies sub-dimension of DERS similar with the findings of this study. Distinctively, it was observed that the participants who mutilated themselves have higher scores also in the clarity sub-dimension but that there was no difference between the scores in the sub-dimensions of impulse and goals. This difference between these studies can be the result of sex difference between the

participants of these two studies. Likewise, Gratz et al. (7) indicated that there is a considerable sex difference between men and women in terms of risk factors of self-mutilation and that studies about the etiology of these behaviors should be conducted separately for women and men.

Literature on emotional development suggests that (45,46) the reactions of parents to their children's emotional expressions have an important effect on their children's coping with emotions, regulating emotions, and realizing and expressing them in the future. Moreover, Gottman et al. (46) drew attention to the importance of caring about children's emotions and emphasized that the primary factor that determines children's psychological functionality is not caring about their emotions. There are some indicators showing that emotional abuse, including parent's hypercritical, insulting, and humiliating attitudes, can have serious negative effects on children's cognitive-emotional development (23,24) and that these negative consequences can continue during adulthood (25,26,27,47). According to the theoretical model by Linehan (16), an environment that devalues emotions disables individuals to learn regulating their emotions for adaptation. For this reason, these individuals prefer temporary and impulsive strategies such as self-mutilation to restructure their emotions in a tolerable level. Consistent with this finding and theoretical insights, analysis results indicated that emotional abuse and negligence experiences among substance addicts who mutilated themselves frequently could be a result of the development of the sub-dimensions of goals, strategies, and impulse of difficulty in emotion regulation. However, it should be kept in mind that these findings depended upon the data collected from the participants of the group consisting of individuals who mutilated themselves frequently and that the limited number of the participants of this group is an important limitation affecting the validity of this finding.

As a result, the findings of this research can indicate that alcohol/substance addicts, who were raised in an environment devaluing their emotions, prefer impulsive and nonadaptive ways of emotion regulation because they do not have the equipment to manage their negative emotion experiences with adaptive ways.

The research results indicate the development of treatments for self-mutilative behaviors that ground on emotional dysregulation and the importance of conceptualization of emotion regulation as the control of the response toward emotion, not as emotion control. Furthermore, attention is drawn to the one important component of these treatments that is to make the individuals learn adaptive emotion regulation skills.

However, as it was mentioned before, there are some limitations of the research that create restrictions in the interpretation of this research. One of these limitations is the small sample size, and the other is that the sample consists of male alcohol/substance addicts. On the other hand, in the studies conducted on self-mutilative behaviors with non-clinical samples, it is a requirement to have a quite large sample because of the nature of these behaviors (5). However, there are many financial and practical difficulties that occur with this requirement. When a research is conducted with clinical samples, researchers prefer psychiatry services, so they conduct research with samples that are very heterogeneous in terms of diagnosis. Therefore, in this research that is a thesis study conducted in a limited period of time with a difficult to-access sample, we studied substance addicts who were known to experience self-mutilation frequently (48,49). After following the exclusion criteria, 28 individuals were included in the self-mutilating condition and 51 individuals were included in the condition consisting of participants who did not mutilate themselves in the one-way MANCOVAs. However, it was not possible to make the sample larger because the study was a completed thesis study. Although this situation is

a limitation that can affect the generalization of the findings obtained from the study, it should be taken into consideration that the aforementioned financial and practical difficulties were removed, and self-mutilation and its risk factors were studied with a sample more homogeneous in terms of diagnosis. Another limitation of the study was that the data was collected from substance and alcohol addicts. That there are some differences between substance and alcohol addicts is known. That there can be some factors having a confounding effect on relationships resulting from this difference and on observed relationships. Still, the analyses conducted on the research variables indicated there was no difference between the groups.

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