The Relationship Between Childhood Traumas, Identity Development, Difficulties in Emotion Regulation and Psychopathology

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SUMMARY

Objective: The present study aimed to explore the relationship between traumatic experiences, difficulties in emotion regulation, identity confusion and psychopathology.

Method: Six hundred and thirty five university students volunteered to participate to the first step of the study (460 (72.4%) females and 175 (27.6%) males). The mean age was 20.57 (17-29) years. The participants who scored above the group mean (X = 44) on the Childhood Trauma Questionnaire-Short Form (CTQ-SF) were invited for a diagnostic interview. A total of 69 participants, consisting of 46 females (66.7%) and 23 males (33.3%), with a mean group age of 20.93 (17-29) years, were included in the second step of the study. All participants completed the General Information Form, the CTQ-SF, the Difficulties in Emotion Regulation Scale (DERS), the Sense of Identity Assessment Form (SIAF), SCID-I and SCID II.

Results: Prevalence of childhood traumas in the study group was 31.3%. Participants who came from low income groups, who were using psychotropic medications, who had family or personal history of self harm behaviour and who attempted suicide had significantly higher CTQ-SF scores. The SIAF scores of the subgroup diagnosed with psychiatric disorders were significantly higher than those of the undiagnosed. However, they did not differ with respect to their CTQ-SF and DERS scores. Results showed that difficulties in emotion regulation played a partial mediating role in the association of childhood traumatic events, in particular emotional abuse, with identity confusion.

Conclusion: The present study demonstrated that childhood traumatic events not only have effects on emotion regulation and the development of sense of identity, but also may be associated with self harm behaviours in the later stages of life. For prevention studies, enhancing parenting skills and raising community awareness to this issue would be beneficial.

Keywords: Childhood traumas, child abuse and neglect, emotion regulation difficulty, identity confusion, psychopathology

INTRODUCTION

Childhood traumas (CT) are conditions that can adversely affect emotional, physical, cognitive, behavioural and social development (Carr et al. 2013). CT involving physical and emotional abuses, including sexual abuse, and neglect by parents, other caregivers or strangers, are exposures to attitudes and behaviors that can prevent physical, emotional, mental, and social development (Güler et al. 2002). Injury caused to children by an adult, excluding accidental events, is physical abuse (Kulaksızoğlu 2001, Polat 2001);and harassment of children for the sexual needs and desires of adults is sexual abuse (Kara et al. 2004, Topbaş 2004). Continual discrediting of the child's qualifications, house bounding, threatening to abandon, upbringing noncompliant with the social norms, imposing expectations incompatible with the child's age (Polat 2001); refusal, humiliation, leaving alone, orienting to

Received: 25.10.2016 - **Accepted:** 20.03.2018

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https://www.doi.org/10.5080/u20463

crime, harassing child for own interests, putting the child into an adult role (Shull 1999) are examples to emotional abuse that emotionally harms the child. Neglect, or 'bad care' is not providing the child with the main requirements of care and protection (Polat 2007). Depriving the child of nutrition and education exemplify physical neglect; and not protecting the child from sexual abuse is sexual neglect. Not loving the child, not showing affection and lack of interest in the child are examples of emotional neglect (Aral 2001). Neglect and abuse are discriminated on the basis of being passive and active actions, respectively.

Positive relationships have been demonstrated between CT and substance abuse in later life (Aksoy and Ögel 2003), post-traumatic stress disorder (Taner and Gökler 2004), sexual dysfunction (Beitchman et al. 1992), depression (Beitchman et al. 1992, Bostancı et al. 2006, Durmuşoğlu and Yıldırım-Doğru 2006, Evren and Ögel 2003, Örsel et al. 2011,Siyez 2003, Yılmaz-Irmak 2008, Zoroğlu et al. 2001), obsessive-compulsive disorder or trichotillomania (Lochner et al. 2002), and anxiety disorders (Beitchman et al. 1992, Evren and Ögel 2003, Örsel et al. 2011, Yılmaz-Irmak 2008).

Another adverse effect of CT surfaces with difficulties of emotion regulation (DER) (Shipman et al. 2007, Wolfe et al. 2001). Difficulty in emotion regulation comprises not being aware of or understanding emotions, being under the control of instincts while under negative emotions, and having difficulty in orienting to goal-directed behavior (Gratz and Roemer 2004). These difficulties can be avoided by parental contribution to the development of childrens' ability of emotion regulation in being the correct model of controlling own emotions and also respecting children's sadness at a reasonable level and their autonomy of hiding their emotions (Wenar and Kerig 2005). Exposure to abusive attitudes in childhood creates problems by making it difficult for the child to show appropriate emotional reactions in interpersonal relationships (Wolfe et al. 2001). Children exposed to abuse experience more DER than those not exposed to abuse (Shipman et al. 2007, Wolfe et al. 2001). Also, abused children fail to show emotions fitting the situations faced. Their empathy and emotional self-consciousness decrease and they display more emotional imbalance or negativity (Shipman et al. 2007).

CT and failures of emotion regulation can affect identity development (Berman 2016). Identity development has been described as the individual's perception of existing with a unique and specific mannerism and its continuousness (Dereboy 1993). The process of formulating any response to the question "Who am I?" can be taken as identity formation (Schwarts 2005). Hence, negative emotions, which gain place in personality throughout childhood years, cause identity confusion and are regarded as not having accomplished this process (Erikson 1968). There are studies showing the hampering of identity development by traumatic experiences such as exposure to war (Guler 2014), forced migration (Tay et al. 2015) or losing the only child (Zheng and Lawson 2015).Psychiatric symptoms in general (Başkan 2000, Türkbay et al. 2005) and social phobia in particular (Gültekin and Dereboy 2011) were shown to be related to identity confusion. Çuhadaroglu (1999) reported axis I diagnoses of identity confusion in 73% of youngsters they studied in Turkey. Successful resolution of an individual's identity crisis results in an identity concept based on a capital consisting of all experiences in successive stages of previous development (trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, industry versus inferiority) (Erikson 1980). Emotional regulation skills can be considered to be effective within this framework. From a developmental viewpoint, all of the mentioned emotions such as mistrust, shame, doubt, guilt can be foreseen to play a more positive role in identity development in people with higher emotion regulation, when considering that the abilities of emotion regulation develop earlier than identity in childhood. The setbacks of guilt against initiative, which Erikson regards as one of the important psychosocial stages in identity development, can lead to a long-term influence and this stage in identity development can have a relationship with emotion regulation abilities. Szentágotai-Tătar and Miu (2016) have proposed that the abilities to attain emotion regulation strategies significantly predict shame and guilt proneness. The authors recommend further research on the relationship between emotion regulation abilities, identity features, and psychopathologies. In two recently published studies, it has been indicated that childhood traumatic experiences significantly predict emotion regulation abilities; which situation can last tens of years and can be related to definite characteristic features (Marusak et al. 2015, Huh et al. 2016). CT can damage amygdala activity, thereby giving rise to increased sensitivity in emotion regulation abilities and especially the perception of threat (Marusak et al. 2015).

If the mother relates to the child by perceiving the child's requirements correctly and showing the appropriate reactions, experiences necessary in the future for emotion regulation and self-perception can be provided to the child (Çuhadaroğlu Çetin 2001). The relationships of CT with emotion regulation and identity confusion can be visualised from this point of view. Since it is thought that abilities of emotion regulation, an important indicator of childhood development, and the development of identity in adolescence can be influenced by the traumatic experiences of childhood, our study has aimed to investigate the relationships between these variables in the same developmental order. Insufficiency of other studies proposing that early childhood traumas affect firstly the emotion regulation abilities and subsequently the identity development in adolescence; and the suggestions

of correlations with psychopathology have been the main factors influencing the planning of this study.

While investigating for the first time all of the three concepts mentioned above, this study has also aimed to determine the prediction of DER and identity confusion by CT, the intermediating role of emotion regulation in the relationship of CT with identity confusion, and the incidence of psychiatric disorders in individuals diagnosed with CT.

METHOD

Participants

The study has been conducted at two stages with university students. At the first stage, for a small effect size (0.80 power; 0.10 effect size), a sampling size of at least 617 persons have been targeted (Cohen 1988) and 635 people with mean age of 20.57 (17-29) and consisting of 460 females (72.4%) 175 males (27.6%)have been reached. At the second stage, the participant count has been found to be at least 68 according to 0.80 power and 0.30 effect size since the effect size of CT and DER studies were at medium level (Cohen 1988). Participants (n=199) scoring above the mean (X = 44) on the CTQ-SF have been invited back for interview, starting with those having the highest score and 69 individuals with a mean age of 20.93 (17-29) years and consisting of 46 females (66.7%) and 23 males (33.3%) accepted to taken part in the second stage of the study.

Data Collecting Tools

General Information Form: The form consisted of questions about demographic and economic conditions, names and phone numbers to be used for the second stage, personal and family history of any chronic disease and treatment, of any psychiatric disorder, of psychiatric medication intake, of self harm behaviour and of suicide attempt, and the way and how frequently these had been experienced.

Childhood Traumas Questionnaire-Short Form (CTQ-SF): With 28 items, CTQ-SF is the short form of the 5-point Likert-type self-report scale, the first version of which was composed of 70 items (Bernstein et al. 1994, Bernstein et al. 2003) and has a validity and reliability study in Turkish. It contains 25 questions with 5 sub-dimensions covering emotional, physical and sexual abuse, and physical and emotional neglect in childhood and also 3 questions measuring denial. The total score and sub-dimensional scores were calculated in this study on the basis of the suggested cut off values of 5 scores for sexual and physical abuse, 7 scores for physical neglect and emotional abuse, and 12 scores for emotional neglect (Şar et al. 2012). For the purposes of this study, the items of CTQ-SF have been selected and analysed for their reliability. At the first stage of the study with 635 participants, the reliability coefficient Cronbach α was 0.78, while it was 0.73 for the 69 participants at the second stage.

Difficulties in Emotion Regulation Scale (DERS): This is a 5-point Likert-type self-report scale with 36 items covering awareness of emotions, openness, acceptance, strategies, impulse and goal difficulties (Gratz and Roemer 2004). High scores point out the existence of stronger DER. It has Turkish adaptation and validity and reliability study (Ruganci and Gençöz 2010). In this study, the items of DERS have been selected and analysed for reliability. At the first stage of the study with 635 participants, the reliability coefficient Cronbach α was 0.83, and it was 0.85 for the 69 participants at the second stage.

Sense of Identity Assessment Form (SIAF): This5-point Likert-type, valid and reliable self-report scale with 28 items assessing identity confusion in adolescents. It has been developed by Dereboy (1993) and Dereboy et al. (1994) as a self-report scale for questioning and assessing identity confusion by collecting under 4 groups (problems of mental structure, problems in identity sense, problems about progressive-formation stages, selection of negative identity) the experiences and symptoms that can be useful for assessment and recognition of identity confusion in youngsters. It queries the extent to which the experiences mentioned in each item reflect the thoughts and emotions of the user individual and requests to make ratings between "1) never suits me" and "5) completely suits me". In this study, items of SIAF have been selected and analysed for their reliability. For both the first and the second stages of the study, with, respectively, 635 and 69 participants, the reliability coefficient Cronbach α was 0.93.

Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I): This semi-structured tool used by the interviewer assesses the DSM-IV axis I disorders (First et al. 1997). It has a translation, reliability study and user guide in Turkish (Çorapçıoğlu et al. 1999). The diagnoses made in the last one month have been used in the study.

Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II): This is a semi-structured tool developed according to the DSM-III-R classification (Spitzer et al. 1990) to be used for the second axis personality disorders diagnosed within the last one month. It has a translation (Sorias et al. 1990), and reliability study (Coşkunol et al. 1994).

Procedure

After the approval of the ethics committee, the measurement tools have been utilised by the researchers in their own classes in the permitted class hours on the volunteering students of the faculties of Medicine, Education, Arts and Sciences, Health Vocational College of Adnan Menderes University.

Only 30 participants not provided their names and contact numbers when requested for the second stage of the study. The participants, who got over the mean score of 44 calculated together on the CTQ-SF sub-dimensions and reduce/denial questions, have been invited to the interview starting from the highest score at the second stage. There have been 8 participants who could not be reached, 4 who did not want to take part in, 4 who did not fill in the forms properly, and 23 who did not come to the interview. The participants who have attended the interview have been explained the subject, the objectives of the study and written informed consent forms have been collected. After SCID I and SCID II interviews lasting an average of 50 minutes, the interviewer (the second author) informed the participants about the results, and were explained that they could make polyclinic applications if they wanted.

Statistical Analysis

The analyses have been carried out using the "Statistical Package for Social Sciences" (SPSS 16.0) program. Frequency, rate, mean, one sample Kolmogorov-Smirnov distribution test, Mann-Whitney U test, Kruskal Wallis analyses were utilized for the data. Also, the Sobel Test and a series of single and multiple regression analyses were used to detect the mediating role and the predictive power of independent variables over dependent variables. The one sample Kolmogorov-Smirnov test has been used to test whether or not the data variables showed normal distribution, and it has been observed that the parametric hypothesis tests were not met. Therefore, the Mann-Whitney U test and the Kruskal-Wallis analyses have been performed to find out whether the mean scores on CTQ-SF showed significant differences in terms of socio-demographic variables (gender, family type, marital status, income level) and psychiatric and medical variables (existence of personal and in family history of self harm behavior, of suicidal attempt, any chronic disease, psychiatric disorder and psychiatric medication intake). A series of single and multiple regression analyses have been carried out in order to determine whether emotion regulation is a mediator variable in the relationship of CT and its sub-dimensions with identity confusion; and the Sobel Test has been used to measure the mediating effect. Statistical significance has been accepted when p value was <0.05.

RESULTS

The mean scores taken from the scales used in the study are presented in Table 1.

CT incidence was found to be 31.3% at the first stage of the study. The values on gender and trauma sub-dimensions at the first and second stages are presented in Table 2.

The difference between the mean CTQ-SF scores according to the income levels of the participants was significant when using the Kruskal-Wallis analysis (X^2 = 12.12, SD = 2, p = 0.002), such that, those with an income of and under 1000TRY have higher CTQ-SF scores. In terms of the psychiatric and medical variables, the difference between the mean CTQ-SF scores were significant on the Mann-Whitney U analyses. According to the results, the participants who used medications (U = 45.500, z = -2.177, p = 0.029); who had personal (U = 323.500, z = -2.837, p = 0.005) or in family self harm behavior (U = 148.00, z = -2.181, p = 0.029); who

Table 1. Mean Scores of the Scales

	First Stage (635 person)			Second Stage (69 person)		
Scales	**Women**	**Men**	**Total**	**Women**	**Men**	**Total**
CTQ-SF	32.15	35.75	33.14	45.91	47.96	46.59
DERS	89.95	92.14	90.55	97.78	99.56	98.37
SIAF	55.18	57.70	55.88	70.23	68.17	69.55

CTQ-SF: Childhood Traumas Questionnaire-Short Form, DERS: Difficulties in Emotion Regulation Scale, SIAF: Sense of Identity Assessment Form

Table 2. Incidences of Childhood Trauma Sub-Dimensions

	First Stage (635 person)				Second Stage (69 person)			
CTQ-SF	**Women**	**Men**	**Total**	**(%)**	**Women**	**Men**	**Total**	**(%)**
Physical abuse	9	11	20	3.1	1	3	4	5.8
Sexual abuse	10	9	19	3.0	4	3	7	10.1
Emotional abuse	16	15	31	4.9	6	6	12	17.4
Physical neglect	20	18	38	6.0	3	3	6	8.7
Emotional neglect	85	42	127	20.0	28	13	41	59.4

CTQ-SF: Childhood Traumas Questionnaire-Short Form

Table 3. Psychiatric Diagnoses and Distributions in SCID I and SCID II

	n	%
Disorders meeting any diagnosis	36	43.5
Psychiatric Diagnoses in SCID I	23	33.3
Specific Phobia	7	10.1
Major Depresssive Disorder	5	7.2
Dysthymic Disorder	1	1.4
Social Phobia	2	2.8
Alcohol Abuse	1	1.4
Panic Disorder	1	1.4
OCD	1	1.4
NOS Anxiety Disorder	2	2.8
Agoraphobia	1	1.4
PTSD	1	1.4
Non-Alcohol Substance Abuse and Dependence	1	1.4
Psychiatric Diagnoses in SCID II	20	28.9
Avoidant Personality Disorder	11	15.9
Passive-Aggressive Personality Disorder	1	1.4
Self-Defeating Personality Disorder	1	1.4
Dependent Personality Disorder	2	2.8
Paranoid Personality Disorder	1	1.4
Schizoid Personality Disorder	2	2.8
OCPD	2	2.8

OCD: Obsessive-Compulsive Disorder, NOS: Not Otherwise Specified, PTSD: Post-Traumatic Stress Disorder, OCPD: Obsessive-Compulsive Personality Disorder

had personal (U = 159.500, z = -1.975, p = 0.048) or family history of suicide attempt (U = 89.500, z = -2.542, p = 0.011) had higher CTQ-SF scores. Significant differences were not determined in CTQ-SF scores of the participants on the basis of gender in both the first and second stages of the study.

Diagnostic distribution of the 69 participants on the SCID I and SCID II at the second stage of the study is given in Table 3. There were already psychiatric disorders in 15 and comorbidities in 8 participants. Statistical difference was not found with respect to gender of the participants with these diagnoses (W = 56.7%, M = 43.3%).

Using the Mann-Whitney U analysis, the differences between the mean SIAF scores of those with and without psychiatric disorder and comorbidity diagnoses have been found to be significantly higher (U = 396.00, z = -2.289, p = 0.022) in the participants with the diagnoses, while similarly significant differences were not determined with the mean scores on the CTQ-SF and DERS.

The Effect of CT Sub-Dimensions on DERS and SIAF Scores

A series of single and multiple regression analyses have been carried out based on Baron and Kenny (1986) model in order to determine the mediating role of emotion regulation in the relationship of CT and its sub-dimensions with identity confusion. It has been observed that emotional abuse has a significant effect on DERS and SIAF when the sub-dimensions are added to the model at once by using the stepwise selection method in multiple regression analysis. At the second step, emotional abuse and sexual abuse have been analysed for DERS, and emotional abuse and emotional neglect have been analysed for SIAF, excluding the other sub-dimensions.

Emotional abuse explained 17% of the change on DERS alone and 23% of the change together with sexual abuse at the next step. When beta values (β) were examined, emotional abuse (β = 1.85) was observed to have more effect than sexual abuse (β = 1.08) (Table 4).

Emotional abuse explained 33% of the change on SIAF alone, and 40% of the variance together with emotional neglect at the next step. When beta values (β) were examined, emotional abuse (β = 2.99) was observed to have more effect than emotional neglect (β = 1.50) in the explanation of SIAF (Table 4).

Regarding the prediction of mediating role of DER in the relationship between CT and identity confusion, it has been observed at the first step of the regression analyses that CT, an independent variable, had a significant effect on the dependent variable of identity confusion (β = 0.552, p< 0.001) and explained 31% of the change. At the second step, it has been observed that CT, an independent variable, had a significant effect on the mediating variable DER (β = 0.43, p< 0.001) and explained 18% of the change. At the third step, it has been observed that DER, a mediating variable, had a significant effect on identity confusion (β = 0.37, p< 0.001)

Table 4. Effects of Childhood Trauma Sub-Dimensions on DERS and SIAF

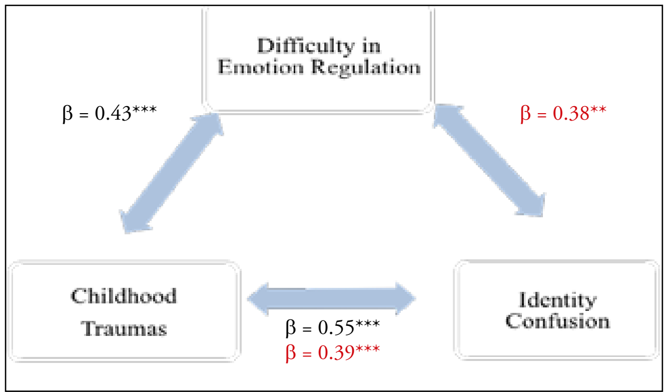
	Predicted	Predictor	B	SE	β	R^2	Adj. R^2	p
1.step	Emotional Abuse	SIAF	3.67	0.64	0.57	0.33	0.32	0.00
2.step	Emotional Abuse		2.99	0.65	0.47	0.40	0.39	0.00
	Emotional Neglect		1.50	0.51	0.30			
1.step	Emotional Abuse	DERS	2.10	0.56	0.41	0.17	0.16	0.00
2.step	Emotional Abuse		1.85	0.56	0.36	0.23	0.20	0.032
	Sexual Abuse		1.08	0.50	0.24			

DERS: Difficulties in Emotion Regulation Scale, SIAF: Sense of Identity Assessment Form

Table 5. The Mediating Role of Difficulty in Emotion Regulation (DERS) in the Relationship between Childhood Traumas Questionnaire-Short Form (CTQ-SF) and Sense of Identity Assessment Form (SIAF)

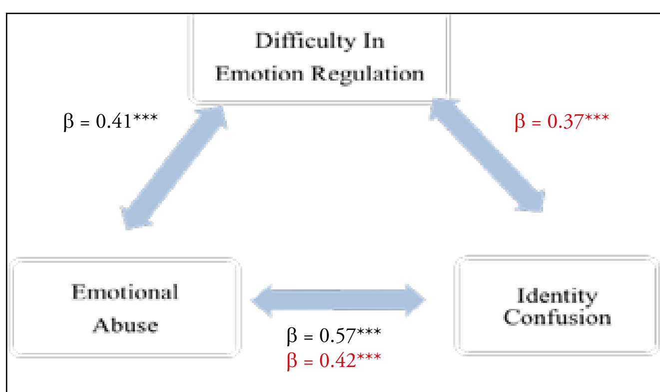
Independent Variable	Dependent Variable	Equation	B	Std. Error	Beta	R^2
1. CTQ-SF	SIAF	C	1.14	0.21	0.55	0.31
2. CTQ-SF	DERS	A	0.69	0.18	0.43	0.18
3. DERS	SIAF	B	0.69	0.13	0.38	0.30
4. CTQ-SF and DERS	SIAF	c'	0.81	0.21	0.39	0.42

(Sobel z = 2.056, p< 0.001)



p= *0.05, **0.001, ***0.0001

Figure 1. The Mediating Role of Difficulty in Emotion Regulation in the Relationship between Childhood Traumas and Identity Confusion



p= *0.05, **0.001, ***0.0001

Figure 2. The Mediating Role of Difficulty in Emotion Regulation in the Relationship between Emotional Abuse and Identity Confusion

and explained 30% of the change. CT and DER together explained 42 % of the change (Table 5).

As the last step, effect of the CTQ-SF score on SIAF had decreased when the effects of both the independent variable (CTQ-SF) and the mediating variable (DERS) were measured on the dependent variable (SIAF) (two independent variables were included in the model at the same time). Accordingly, it can be said that DER has a partial mediating role between CT and identity confusion (Sobel z = 2.056, p< 0.001) (Figure 1).

According to the regression analyses made for examining the mediating role of DER on the relationship between CT sub-dimensions and identity confusion, it has been found that emotional abuse, an independent variable, had a significant effect on identity confusion, a dependent variable (β = 0.571, p< 0.001) and explained 33% of the variance. It has been observed that it also had a significant effect on DER, the mediating variable (β = 0.413, p< 0.001) and explained 17% of the variance. DER, the mediating variable had a significant effect on identity confusion (β = 0.37, p< 0.001) and explained 30% of the variance. Emotional abuse and DER together explained 44% of the variance (Table 6).

Finally, when the effect of the independent (emotional abuse) and mediating (DERS) variables together on the dependent variable (SIAF) was measured (by adding two independent variables to the same model at the same time), the effect of independent variable on SIAF had decreased. Accordingly, it can be stated that DER has a partial mediating role between emotional abuse and identity confusion (Sobel z = 0.716, p< 0.001) (Figure 2).

Although it has been seen that emotional neglect, an independent variable, had a significant effect on identity confusion, a dependent variable (β = 0.463, p< 0.001), and

Table 6. The Mediating Role of Difficulty in Emotion Regulation (DERS) in the Relationship between Emotional Abuse and Sense of Identity Assessment Form (SIAF)

Independent Variable	Dependent Variable	Equation	B	Std. Error	Beta	R^2
1. Emotional Abuse	SIAF	C	3.67	0.64	0.57	0.33
2. Emotional Abuse	DERS	A	2.10	0.56	0.41	0.17
3. DERS	SIAF	B	0.69	0.13	0.37	0.30
4.Emotional Abuse and DERS	SIAF	c'	0.47	0.13	0.42	0.44

(Sobel z = 0.716, p< 0.001)

explained 21% of the variance, it has been found that it did not have any significant effect on DER, a mediating variable (β = 0.017, p> 0.001). Therefore, it can be said that DER is not the mediating variable in the relationship of emotional neglect with identity confusion.

Consequently, it has been found that DER was the partial mediating variable in the relationship of CT and especially emotional abuse with identity confusion.

DISCUSSION

In our study, the mean score on DERS was higher than those reported in the other studies performed in Turkey and in parallel to the studies carried out abroad (Gratz and Roemer 2004, Rugancı and Gençöz 2010, Karagöz and Dağ 2015). Given the findings of some studies made abroad (Wenar and Kerig 2005), one of the reasons for the elevated score observed on DERS in Turkey can be that parents, as models, lack the abilities to notice and regulate their own emotions. Especially mothers may be acting as a mirror in the development of emotion regulation abilities of their children (Çuhadaroğlu Çetin 2001). Other reasons for the elevated mean scores on DERS may include the high number of families with multiple children in Turkey, the anxious and avoiding attachment styles, mother's insufficiency in regulating her own emotions and symbiotic relationships with the child.

The most common CT in Switzerland both in the clinical and the normal groups is emotional neglect as also observed in our study, while the second ranking CT is emotional abuse (Karos et al. 2014) and not physical neglect as observed in our study. One of the reasons why physical neglect is higher in Turkey than in Switzerland can be thought as the difficulty in having access to proper education and nutrition in our country. Per capita income in countries may be related to physical neglect. Finding that emotional neglect and emotional abuse significantly predict identity confusion suggests that these experiences may have long-term effects. Especially the changes brought about in the brain by CT may cause these effects (Marusak et al. 2015). Preventing emotional neglect, which can have many societal and social reasons such as the excess number of siblings, social norms hindering men from showing their love to their children, insufficient participation of the father, and the acceptance of "men do not show their emotions" or the mistakes made in the styles of bringing up the children, can be of long term benefit to the population as a whole.

There are studies showing that economic problems cause CT (Erginer 2007, Güler et al. 2002, Horton and Cruise 2001). The results indicated this trend at both stages of our study. Higher incidence of CT among individuals born to families with low income may also be associated with the resultant experience of more problems with respect to issues of health, education, occupation and nutrition. In a study performed among American women in puberty demonstrated that lower socio-economic status (SES) and being black were found to be related to the increases in CT incidences (Sartor et al. 2018). The general living style of the neighborhood, the region people live in and the group people believe they belong to may also be related to having a history of CT. Certain SES groups can be more concentrated in certain neighborhoods and districts. A contemporary study conducted in America has showed that such neighborhood factors and childhood traumas and post-traumatic stress are related (Lowe et al. 2016).

Finding that CTQ-SF scores of the participants with both personal and in family history of self harm behavior and suicidal attempt are higher as compared to those without these behaviours is in line with the reports in the literature that self harm behavior (Aksoy and Ögel 2003, Gümüş-Saçarçelik 2009, Karagöz 2010, Yargıç et al. 2012, Karagöz and Dağ 2015) and suicide attempts (Bruffaerts et al. 2010, Karagöz 2010, Yargıç et al. 2012) are related to abuse and neglect. Self harm behaviour and suicide attempts may be caused by problems of anger control and the internal orientation of anger resulting from insufficiency of emotion regulation abilities. Abuse and internally oriented anger have been found to be related s in studies made in Turkey (Eroğul and Türk 2013, Kandur 2016). CT experiences which are not talked about and shared, but kept secret and hence not detected by the study can be evaluated as having turned into intensified internally oriented anger resulting in self harm behavior and suicide attempts. In a study performed with foreign students studying in the USA, it has been found that anger suppression increases the behavior of self- injuring (Turner et al. 2015). In a study performed in Turkey, it has been reported that the inward expression of anger by substance using men with a history of CT is significantly higher than that among men without CT experiences (Evren et al. 2012). When these studies are evaluated together, it can be considered that CT makes anger expression harder and the suppressed anger turns into the behavior of self harming. Fowke et al. (2012) found that the severity of existing internalized shame following CT increases similarly to anger. It has a negative relationship with self-compassion and can increase self harm behavior. Although it appears conflicting that neglect and abuse are not predictive of psychopathologies one by one despite having been found to be related to psychopathological behaviours of self harm and suicide attempts, this is acceptable; and can be attributed to a protective effect of psychological factors such as growing up after traumatisation, resilience, amount of social support received and correct methods of coping with trauma.

One reason why a relationship is not observed between CT and psychopathology may be due to the psychological improvement during growing up after trauma (GAT) which then acts as a protective factor against psychopathologies.

According to the theoretical model developed by McElheran et al. (2012), it is possible for children exposed to sexual abuse to show GAT. The author has proposed that girls with a secure attachment to caregiver will be more inclined to GAT after exposure to sexual abuse. The female gender as well as the the secure attachment which augments the social support can be facilitating for GAT. This can be considered as gaining immunity against developing psychopathology in the long-term.

Another reason for not detecting a relationship between CT and psychopathology may stem from not having matched the diagnoses with the sub-dimensions of CT, which is a general assessment. Significant relationships could be encountered if the relationship between specific CT sub-dimensions and diagnoses were researched. An investigation of the relationship of CT sub-dimensions with eating disorders among under graduate psychology students demonstrated that physical and emotional abuse in childhood predicted the eating disorders, while a relationship with sexual abuse was not detected (Moulton et al. 2013). Etain et al. (2017) reported that emotional and sexual abuse, but not physical abuse, predict bipolar disorder diagnosis. Hence, hypotheses regarding the relationship between sexual abuse and substance use disorder or between emotional abuse and avoidant personality disorder can be tested in prospective studies. In this study, the low number of our participating experimental subjects has prevented the one by one comparison of CT sub-dimensions of the CTQ-SF tool used with the diagnoses made.

Statistically insignificant relationship between CT and psychopathologies gain significance if the adverse childhood experiences continue in adolescence (Classen et al. 2005) and are seen to be more intense among men (Desai et al. 2002). Future studies can focus on a probable facilitation of psychopathology in the long-term among men with a history of CT and its development into a multi trauma in adolescence. Strong social support among women can be a protective factor against developing psychopathology. Not having controlled other traumatic experiences that could have been experienced in the later years of the participants can be considered as a limitation of this study.

SIAF scores of the participants with diagnoses based on SCID I and SCID II are higher than those without any diagnoses. Investigations on correlation of SIAF performance with psychiatric disorders have reported that 73% of the participating youngsters with identity confusion were diagnosed with axis I disorders (Çuhadaroğlu, 1999) and that SIAF scores showed a strong correlation with the outcome of SCID II on avoidant personality disorder (Kaynak-Demir et al. 2009). Development of avoidant personality disorder has been attributed to the adverse effects of the traumas experienced in childhood on identity development, reinforcement of identity characteristics in relation to the individual's temperament (passive, introvert) and with further experiences in later life, and the development of defenses against these (Kaynak-Demir et al. 2009).

Description of the identity concept has been revised in DSM-5 as one of the two determining factors of personality disorders. Deficits of the personality development and existence of problems in proximity with empathy have been identified as the predominant causes of the problems of personality functions (Skodol 2012). In this sense, the insufficiency observed on the SIAF can be regarded as a facilitating factor for developing psychopathology while sufficiency can be a protective factor enabling the continuation of wellbeing.

Our study has shown that sexual and emotional abuse predict DER, as also reported in the relevant literature (Shipman et al. 2007, Karagöz 2010, Bilim 2012). Emotional abuse and neglect are expected to affect emotion development and the skill of emotion regulation.

CTs have been implicated in the occurrence of cognitive disorders, emotional problems, deterioration of self perception and interpersonal relationships (Kendall-Tackett 2002). Traumatized children experience DER in the long-term, such that their empathy and emotional self-awareness is reduced; they cannot experience feelings appropriate for the prevailing conditions; and they present with significant emotional imbalance (Shipman et al. 2007).

Our study, in having investigated the concepts of CT, DER and SIAF together, has demonstrated that emotional abuse and emotional neglect predict identity confusion and that DER is a partial mediating variable in the relationship of CT, and especially of emotional abuse, with identity confusion. Any emotional problem experienced during the development of emotion regulation in the early years of life probably affects the sense of identity in adolescence. In other words, adversities experienced at any stage are expected to influence further stages. It has been observed that traumatic experiences of childhood can interfere with the completion of identity development, and that CTs affect adversely emotion regulation skills resulting in possible augmentation of identity confusion. That is to say, the priority order in developmental periods have been accepted as a criterion in deciding the direction of predictors such that DER has been placed ahead of SIAF.

CT, emotion regulation and sense of identity are developmental concepts. Therefore, adversities experienced in any one of them are expected to influence the others. Since traumatic experiences in childhood affect the child's physiological, psychological and social developments, it is possible that there would be deficits in the abilities and skills expected to be acquired in childhood.

The gradual gain of emotion regulation skill starting with infancy can be curtailed by experiencing traumatic events.

Problems may be experienced in the development of sense of identity as well. It should be accepted that individuals with a history of CT and deficits of emotion regulation skills would experience greater difficulty in gaining the sense of identity in adolescence.

It is seen that CTs influence both emotion regulation abilities and the development of sense of identity. In order to reduce these adverse effects, undertaking further studies is important for the prevention of CT inflicted in family and school, assisting acquisition of emotion regulation abilities and supporting identity development in adolescence.

As the participants of this study were mainly female university students, results of similar investigations carried out on groups with different gender mix, age and education level may differ. Also it is possible that participants may have refrained from giving correct responses to the questions about sexual abuse on grounds of worry about moral values, shame and accusation. Longitudinal investigation of the relationships of features such as emotion regulation and sense of identity specific to developmental stages with antecedents such as childhood experiences and outcomes of psychopathology are expected to bring more light to the results of the study.

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