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The mediating role of difficulties in emotion regulation in the relationship between childhood trauma and resilience among university students

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ABSTRACT

Contrary to the common belief that traumatic experiences always lead to psychopathology, most individuals with such experiences can actually recover from their traumas. Factors leading to a person's resilience are countless, but one of the important factors explaining why some individuals do not develop any kind of pathology in the face of trauma is emotion regulation. The degree that a person experiences difficulty in emotion regulation is a predictive factor for his/her resilience in the face of adverse childhood events, such as abuse and neglect. The purpose of this study was to examine the relationships among childhood traumas, difficulties in emotion regulation, and resilience among university students. The analysis was conducted with 404 participants. The demographic form, Childhood Trauma Questionnaire, Difficulties in Emotion Regulation Questionnaire Brief Form, and Connor-Davidson Resilience Scale were used for data collection. The results confirmed that difficulties in emotion regulation mediated the relationship between childhood traumas and resilience. Childhood trauma affected the resilience of participants depending on the level of the difficulties they experienced in emotion regulation.

"Adverse childhood experiences (ACEs)" is an umbrella term referring to different types of negative life events experienced during childhood (Pearce et al., 2019). Those negative life experiences may include but are not restricted to physical, sexual, or emotional abuse, bullying, parental death or loss, neglect, and poverty (Felitti et al., 1998; cited in Pearce et al., 2019). Exposure to trauma, especially in early periods of life, has been considered as a risk factor for emotional well-being. Despite the increasing number of studies documenting the importance of those negative life experiences, the definition of childhood trauma in the literature has not been clearly defined. Such terms as neglect, abuse, and maltreatment have been used to identify childhood trauma, and sometimes those terms have been used interchangeably (Giardino et al., 2010). According to Terr (1995), childhood trauma is "the mental result of one sudden, external blow or a series of blows that render the young person temporarily helpless and break past ordinary coping and defensive operations" (p. 303). Within the scope of the definition of childhood trauma, maltreatment, other interpersonal violence (e.g., a friend or a family member being murdered or attacked), and non-interpersonal traumas (e.g., natural disasters, serious accidents, or injuries) have been investigated in different studies (e.g., Dunn et al., 2018). According to the World Health Organization (2020):

> *[childhood maltreatment] includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence, and commercial or other exploitation, which results in actual or potential harm to the child's health, survival, development, or dignity in the context of a relationship of responsibility, trust, or power.*

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Abuse and neglect, on the other hand, have been used to define either the commission or omission of certain acts toward the child. Specifically, "*abuse manifests when the child or adolescent's caregiver fails to provide for the youth's health and well-being either by causing an injury or, as in neglect, by not meeting a basic need*." (Giardino et al., 2010, p. 3). While childhood trauma in nature can be a sudden, one-time event (such as the loss of a beloved one), it can also be a repeatedly occurring event (e.g., maltreatment) (Terr, 1995). According to Gilbert et al. (2009), childhood trauma can also be examined under two different types: intended and unintended. Therefore, the nature and the definition of childhood trauma, as it seems in the literature, reflects the complexity of this issue. In this study, childhood trauma has been conceptualized based on the study by Bernstein et al. (1994), which associated childhood trauma with experiences of abuse and neglect that occurred during childhood. Abuse or neglect has been experienced rarely in isolation, which means that individuals exposed to those negative life experiences generally experience more than one type of childhood trauma (Burns et al., 2012).

Childhood traumas occur in a period within which children do not have the necessary coping skills. Also, early negative life experiences might impact the brain development of a child, which may eventually impact the child's cognitive, emotional, and behavioral development (DeBellis et al., 2005) because the child's brain is still developing (Perry & Pollard, 1998). That is why traumas experienced during the early phases of life have more negative effects compared to traumas experienced later in life, and those traumas might have long-term effects on the lives of individuals (Şar et al., 2012). Experiencing different types of traumas repeatedly is associated with higher levels of risk for psychological problems (Gilbert et al., 2009). Children respond to and are affected by those negative life experiences in different ways (Perry & Pollard, 1998). In a study conducted by Bertele et al. (2022), a high correlation between childhood maltreatment and borderline personality disorder was reported. In a study conducted with a Turkish sample (N=485), it was found that university students with the experience of childhood traumas had significantly higher scores in all Symptom Check List- 90 (SCL-90) subtests, and they had increased levels of dissociation (Aydin et al., 2009). The relationships between childhood traumas and post-traumatic stress disorder (Patock-Peckham et al., 2020), sexual problems (e.g., intimacy problem or pain during sex) (Talmon et al., 2022), depression (Chang et al., 2021), suicide attempt, self-mutilative behavior (Zoroğlu et al., 2001), internet gaming (Shi et al., 2020), somatization problems (Güleç et al., 2013), obesity (Hemmingsson et al., 2014), conduct problems, and substance abuse (Grella et al., 2005) were mentioned.

Even if childhood traumas have been a significant risk factor for those problems, it is important to understand the mechanisms that lead to a person's developing psychological problems in the first place (Bertele et al., 2022) as well as the protective factors helping individuals bounce back from those negative life experiences to identify the preventive-based interventions (McLaughlin & Lambert, 2017). In fact, the ability to cope with difficulties in life exists in varying degrees among different individuals. As the research studies mentioned above show some individuals might experience more serious problems than some others. The current knowledge demonstrates that some individuals are better at handling the difficulties in life and adapting themselves to those life challenges. In the current literature, "resilience" has been a significant term to understand those individuals. Masten (2001) stated that resilience is the term used to understand the positive results for a person who has experienced a trauma even though s/he experiences a serious threat to his/her development and adaptation. In a different definition of resilience, it is a dynamic process including the positive adaptation of a traumatized person who has had severe life experiences (Luthar et al., 2000). Stewart et al. (1997) defined resilience "*as the capability of individuals to cope successfully in the face of significant change, adversity, or risk. This capability changes over time and is enhanced by protective factors in the individual and the environment*" (p. 22).

In the review study conducted by Herrman et al. (2011), it was emphasized that the definition of resilience has changed over time. However, resilience has been associated basically with flexibility, positive adaptation, or the protection of the psychological well-being despite all difficulties, or the reacquisition of psychological health (Herrman et al., 2011). Karaırmak (2010) expressed that even though at the beginning of resilience studies, children and adolescents were the subjects of those studies, recently it has been admitted that not only children and adolescents, but every individual in different life stages experiencing various kinds of problems could become resilient.

In the face of childhood adversity, whether resilience could develop or not depends on the protective and risk factors surrounding the individual (McLaughlin & Lambert, 2017). According to McLaughlin and Lambert (2017), trauma-exposed children experience social information processing biases, altered emotional learning, elevated emotional reactivity, and difficulties in emotion regulation. A person's capacity for emotion regulation was found to be a protective factor for different psychological problems (Kim & Cichetti, 2010). Emotion regulation is defined by Thompson (1994) as a set of processes that help an individual reach his/her goals that are either extrinsic or intrinsic and are used to monitor, evaluate, and modify emotional reactions of individuals. Similarly, Gross (1998) states that emotion regulation is a process that influences what emotions people have, when and how they experience them, and how they express them. In this research, Gratz and Roemer's (2004) conceptualization of emotion regulation has been preferred, and as reported by them, it involves "*awareness and understanding of emotions, acceptance of emotions, ability to control impulsive behaviors and behave in accordance with desired goals when experiencing negative emotions, and ability to use situationally appropriate emotion regulation strategies flexibly to modulate emotional responses as desired in order to meet individual goals and situational demands*" (p. 42-43).

Because any difficulty or problem in emotion regulation may make it difficult to disengage from the emotional content of trauma-specific experiences (McLaughlin & Lambert, 2017), it is expected that trauma-exposed children would have further social, psychological, or physical problems in the future. For example, difficulty in emotion regulation might predict depressive symptoms (Aldao et al., 2010), contributes to the continuation of anxiety disorders (Berking & Wupperman, 2012), is related to Internet addiction problems (Tsai et al., 2020), is higher among individuals with eating disorders (binge eating, anorexia, etc.) (Brockmeyer et al., 2014), and is associated with dating violence perpetration (Shorey et al., 2011). In a study conducted by Subic-Wrana et al. (2010), it was found that the patients with somatoform disorders had significantly higher emotional awareness deficits than the healthy control group.

The prevalence of childhood traumas has been documented in different studies. In a study conducted in Turkey (Dereboy et al., 2018), it was found that in a sample of 635 university students, 31.3% of them had experienced childhood trauma. In a different study with university students, the rate of childhood trauma experiences was found to be 87.9% (N=536) (Güloğlu et al., 2016). Similarly, the current literature in different contexts has reported the high prevalence of childhood traumas worldwide (e.g., Pan et al., 2021). Therefore, while childhood traumas are significant life events impacting a great number of individuals negatively, as it is understood by different studies, not every individual who has experienced a trauma during childhood develops pathology in their future lives. One of the protective factors for individuals faced with trauma is emotion regulation. Individuals who can regulate their emotions are more likely to experience resilience, which was conceptualized as bouncing back from adverse life events. Despite the significance of understanding of childhood trauma experiences in Turkey, the studies conducted so far have just examined the relationships between childhood traumas and resilience (i.e., Doğruer et al., 2022), or childhood traumas and difficulties in emotion regulation (Akpınar & Gümüş-Demir, 2022; Tüccaroğlu, 2021). However, the relationships among three variables (childhood trauma, difficulties in emotion regulation, and resilience) have not been studied. This study hereby provides the literature with insight into the mediating role of difficulties in emotion regulation in the relationship between childhood trauma and resilience.

Current Study

As expressed above, the relationships between childhood trauma and resilience (e.g., Flores et al., 2005), childhood trauma and difficulties in emotion regulation (e.g., Huh et al., 2017), and emotion regulation and resilience (e.g., Mestre et al., 2017) have been examined in various studies. The purpose of this study was to understand the mediating role of difficulties in emotion regulation in the relationship between childhood trauma and resilience. The hypotheses of the study were as follows:

1. Childhood trauma questionnaire total score differs based on the participants' gender, mother's and father's educational level, socioeconomic status (SES) level of the participants' families, and psychiatric diagnosis of the participants.
2. Childhood traumas are related to resilience through difficulties of emotion regulation.

Methods

Participants of the Study

The ethical permission was taken from Maltepe University Ethics Committee (acceptance number: 2022/01-03). For this research, a convenience sampling strategy was preferred. Being at an age between 18 and 25 and being a university student were admission/recruitment criteria. The data collection period was between January and March 2022. Both online data collection forms through Google Forms and paper forms were used. When the data with missing values (n=42) and with outliers (n=10) were removed, the remaining 404 data were used for analysis. Of the participants, 259 were female, and 145 were male. When the psychiatric diagnosis of the participants was screened, it was found that 46 of them (%11.4) had had a psychiatric diagnosis (e.g., attention deficit hyperactivity disorder, anxiety disorder, depression, or personality disorder) in their life at least once. The data were collected in a private university in Istanbul. For further information regarding the demographic characteristics of the participants, please see Table 1.

Table 1. Demographic characteristics of the participants

Variable	*Group*	*f*	*%*
Gender	Female	259	64.1
	Male	145	35.9
Mother's Education Level	Illiterate-Primary School	120	29.7
	Secondary School	76	18.8
	High School	119	29.5
	Graduate Level and Higher	89	22.0
Father's Education Level	Illiterate-Primary School	82	20.3
	Secondary School	76	18.8
	High School	127	31.4
	Graduate Level and Higher	119	29.5
SES	Low	19	4.7
	Middle	345	85.4
	High	40	9.9
Psychiatric Diagnosis	Yes	46	11.4
	No	358	88.6

Data Collection Instruments

Demographic form. This form included questions about the participant's age, education level, mother's and father's education level, the socioeconomic status of his/her family based on his/her perception, and whether the participant had been diagnosed with a disorder or illness by a psychiatrist, and if yes, the label of the diagnosis.

The Turkish childhood trauma questionnaire (CTQ-33). This questionnaire gathers data about childhood traumas retrospectively. The original form was developed by Bernstein et al. (1994), and it included four sub-tests measuring different childhood traumas: physical and emotional abuse, emotional neglect, sexual abuse, and physical neglect. The Cronbach Alpha levels of the original questionnaire's subtests changed between 0.79 and 0.94. The Cronbach Alpha level of CTQ total was 0.95. Test-retest reliability was also high: the interest interval was found to be as 0.88 (Bernstein et al., 1994). The original form was translated by Şar et al. in 2012. Şar et al. (2021) revised this inventory regarding the sentence structures of the items to make it more culture sensitive. They also added over-protection and over-control sub-tests to this test and named this new version as CTQ-33 (Şar et al., 2021). The original CTQ did not include an over-protection or an over-control sub-test. CTQ-33 is a self-report instrument with a 5-Likert structure evaluating abuse and neglect experiences of childhood and adolescence (experiences before the age of 20) under the sub-tests of sexual abuse, emotional abuse, physical abuse, emotional neglect, physical neglect, overprotection and overcontrol, and minimization. The Cronbach alpha score of CTQ-33 was 0.87 (Şar et al., 2021). The Cronbach alpha score for this research was found to be 0.80.

Difficulties in emotion regulation scale-brief form (DERS-16). Gratz and Roemer (2004) developed DERS to assess the different dimensions of emotion regulation difficulties that affect the psychological functioning of an individual in a comprehensive way. The 16-item self-report DERS-16 was developed by Bjureberg et al. (2016) by decreasing the number of items in DERS, which had 36 items rated on a 5-Likert scale. DERS-16 has five subtests measuring the different emotion regulation difficulties. The sub-tests were namely clarity (lack of emotional clarity), goals (difficulties in goal-directed behaviors), impulse (difficulties in impulse control), strategies (limited access to different emotion regulation strategies), and non-acceptance (non-accepting emotional responses). The higher score in the form means higher levels of difficulties in emotion regulation. Cronbach alpha level of the original study was 0.92, and test-retest reliability was found to be as r=0.85 (Bjureberg et al., 2016). Yiğit and Guzey-Yiğit (2019) adapted the scale into Turkish and reported high Cronbach alpha levels as the original study: for total scale, it was 0.92, and for sub-tests, it ranged from 0.78 to 0.84 (Yiğit & Guzey-Yiğit, 2019). In this study, Cronbach alpha level was found to be 0.93.

Connor–Davidson resilience scale (CD-RISC). Developed by Connor and Davidson (2003) as an attempt to measure resilience in individuals coming from different populations, the original scale had a 5-factor structure: personal competence, high standards, and tenacity; trust in one's instincts, tolerance of negative affect, and strengthening effects of stress; positive acceptance of change and secure relationships with others; control; and spiritual influences. However, the Turkish adaptation of the study, conducted by Karaırmak (2010), confirmed a 3-factor structure: tenacity and personal competence, tolerance of negative affect, and tendency toward spirituality. There are 25 items rated on a 5-Likert scale. The higher scores indicated higher resilience. The Turkish adaptation of the scale gave a good reliability with a Cronbach Alpha of 0.92 (Karaırmak, 2010). The current study evaluated the Cronbach Alpha level 0.89.

Data Analysis

Before beginning the data analysis process, the normality of the data was checked for childhood trauma questionnaire, difficulties in emotion regulation scale, and Connor-Davidson Resilience Scale. Leech et al. (2015) asserted that if a variable's skewness scores were between -1 and +1, the data was normally distributed. When 414 participants' data were examined, it was observed that some extreme outliers were affecting the childhood trauma questionnaire's skewness. The scale scores of the students were first converted into standardized Z scores, and then the scores of individuals with a value of 3.29 and above were deleted. According to Gürbüz (2019), it is a reasonable approach to exclude those with standardized Z values ±2.5 if the number of participants is lower than 200, and ±3.29 if the number of participants is higher than 200 from the data set (Gürbüz, 2019). A total of 10 data were deleted from the data set, and the number of samples was accepted as 404 instead of 414. Descriptive statistics and skewness coefficients of participants' childhood trauma, resilience, and emotion regulation difficulty scores are presented in Table 2.

Table 2. Descriptive statistics and skewness coefficients of the participants' childhood trauma, resilience, and emotion regulation difficulty scores (N=404).

Score	Minimum	Maximum	Mean	SD	Skewness	
					Value	Std. Error
Resilience	17	99	69,32	13,99	-0,41	0,12
Difficulties in Emotion Regulation	16	80	39,75	13,43	0,66	0,12
Childhood Trauma	30	88	44,77	11,81	1,00	0,12

For demographic analysis, t-test and ANOVA statistics SPSS 26.0 were used. Post-hoc analysis was conducted by using Scheffe statistics. For mediation analysis, PROCESS Makro v. 4.1 (Hayes, 2022) was added to SPSS 26.0.

Results

Preliminary analysis

The first research question was related to childhood trauma total score statistics regarding the demographic variables of gender, age, mother's and father's educational level, SES level, and psychiatric diagnosis. For this

research question, t-test and ANOVA analysis were conducted. As Table 3 shows, there was no significant difference between female (*M*=44.74, *SD*=11.99) and male (*M*=45.24, *SD*=12.73) participants regarding CCTQ-33 total score (*p*=0.70). Similarly, there were no significant differences among the participants' childhood trauma total scores in terms of their mother's and father's education level (for the mother's education level *p*=0.677 and the father's education level *p*=0.181). Another important finding was the significant difference between participants who had a psychiatric diagnosis (*M*=51.76, *SD*=14.45) and those who did not have one (*M*=44.04, *SD*=11.43) (*t*(401)=-4.299, *p*<0.05). Because the low SES group had only 19 participants, a non-parametric test was conducted for the SES variable regarding CTQ-33 total scores. The Kruskal-Wallis test result showed that there were no significant differences among low (*M*=46.89), middle (*M*=45.01), and high (*M*=43.23) SES groups regarding their CTQ-33 scores, *H*(2)=3.30, *p*=.19.

Table 3. Demographic characteristics of the participants and t-test, ANOVA, and Kruskal-Wallis results based on CTQ-33 Total score.

Variable	Groups	*N*	%	*M*	*SD*	Test Result
Gender	Female	259	64.1	44.74	11.99	*t*(402)=.400, *p*=0.70
	Male	145	35.9	45.24	12.73	
Mother's Education Level	Illiterate-Primary School	120	29.7	44.72	10.00	*F*(3,400)=0.507, *p*=0.677
	Secondary School	76	18.8	45.89	11.85	
	High School	119	29.5	43.99	13.18	
	Graduate level and higher	89	22.0	45.61	13.20	
Father's Education Level	Illiterate-Primary School	82	20.3	46.95	10.99	*F*(3,400)=1.635, *p*=0.181
	Secondary School	76	18.8	44.64	10.98	
	High School	127	31.4	43.30	11.28	
	Graduate level and higher	119	29.5	45.43	13.93	
SES Level	Low	19	4.7	46.89	11.09	*H*(2)=3.30, *p*=.19.
	Middle	345	85.4	45.01	11.91	
	High	40	9.9	43.23	13.69	
Psychiatric Diagnosis	Yes	46	11.4	51.76	14.45	*t*(401)=-4.299, *p*<0.05*
	No	358	88.6	44.04	11.43	

*p<0.05

To determine the relationships between the variables of the study, Pearson correlation analysis was conducted.

Table 4. Pearson correlation coefficients of scales.

	CTQ-33	DERS-16	CD-RISC
CTQ-33	1.00		
DERS-16	,425**	1.00	
CD-RISC	-,285**	-,389**	1.00

**p<.01

As Table 4 above demonstrates, childhood trauma scale (CTQ-33) scores were correlated significantly with Difficulties in Emotion Regulation Total Score (DERS-16) (*r*=,425, *p*<0.05), and Connor-Davidson Resilience Scale Total Score (CD-RISC) (*r*=-,285, *p*<0.05). Accordingly, when childhood trauma scores increase, difficulties in emotion regulation increase and resilience scores decrease. In addition, there was a significant negative correlation between difficulties in emotion regulation and resilience scores (*r*= -,389, *p*<0.05). Therefore, when the participants' difficulties in emotion regulation increase, their resilience scores decrease.

The mediating role of difficulties in emotion regulation in the relationship between childhood trauma and resilience

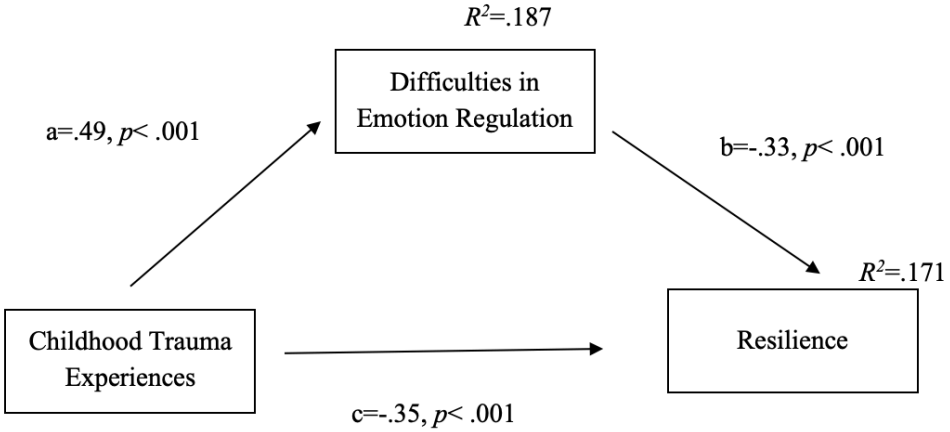
In order to test the mediation role of difficulties in emotion regulation in the relationship between childhood traumas and resilience, the regression analysis was conducted. In the regression analysis conducted with the PROCESS Macro v.4.1. (Hayes, 2022) that was embedded into SPSS 26.0. 5.000, resampling options were selected with the bootstrap technique at the 95% confidence interval, and the results were summarized in Table 5 and Figure 1 presented below.

Table 5. The mediating role of difficulties in emotion regulation in the relationship between childhood trauma and resilience.

	Dependent Variables			
	Difficulties in Emotion Regulation (*M*)		Resilience (*Y*)	
Predictor Variables	*b*	*Standard Error*	*b*	*Standard Error*
Childhood Trauma (*X*)	.49***	.05	-.19**	.06
Difficulties in Emotion Regulation (*M*)	-	-	-.33***	.05
Constant	17.75***	2.37	90.92	2.66
	R^2=.187 *F*(1, 402)=92.24; *p*<.001		R^2=.171 *F*(2, 401)=41.39; *p*<.001	
Indirect effect (K^2)=.139				

***p<.01, ***p<.001, Unstandardized beta (b) coefficients have been reported. The R^2 value represents the variance explained.*

Figure 1. Difficulties in emotion regulation mediates the relationship between childhood trauma experiences and resilience.



Note. a = Independent variable (IV) to Mediator (M), b = direct effect of M on Dependent variable (DV) while controlling for X, c = total effect of IV on DV, c'= direct effect of IV on DV while controlling for M. In the figure, unstandardized beta (b) coefficients were reported. R2 demonstrates the explained variance. p is significant at 0.001 level.

In order to confirm the hypothesis of the study in mediation analysis using the bootstrapping technique, the 95% confidence interval (CI) values obtained as a result of the analysis should not include the zero (0) value in order to support the research hypothesis. (Gürbüz, 2019). We found that childhood trauma experiences had a significant impact on resilience (*B*=-.35, *p*<.001) (path c, Figure 1). Also, childhood trauma experiences were significantly associated with difficulties in emotion regulation (*B*=.49, *p*<.001) (path a, Figure 1). Lastly, having difficulties in emotion regulation was found to be a significant predictor of resilience (*B*=-.33, *p*<.001) The mediation analysis results showed that difficulties in emotion regulation had a significant and negative impact on resilience (*B*=-.16, %95 CI [-.227;-.105]) in that CI did not include any zero (0) point. The mediating role of difficulties in emotion regulation on the relationship between childhood traumas and resilience was

found to be as moderate (K^2=.139). According to Preacher and Kelly (2011), if K^2 is zero, then there is no mediation; if K^2 is 1, it means the highest mediation level. A K^2 value close to .01 indicates a small effect, a K^2 value close to .09 indicates a medium one, and a K^2 value of .25 and above indicates a large one for mediation analysis (Preacher & Kelley, 2011). Consequently, it was confirmed that the difficulties in emotion regulation had mediated the relationship between childhood trauma experiences and resilience in a sample of university students.

Discussion

Childhood traumas do not only affect the period of time they are experienced in. Because of the long-term effects of abuse and neglect experiences, the effects of those negative life events could be traced in adolescence, during university period, or even adulthood. In this study, because of the importance of the period, university students were chosen as the target population. This study showed that there were significant differences found between university students who had a psychiatric diagnosis and those who did not have such a diagnosis regarding the childhood trauma total score. This finding is important in that it shows childhood trauma experiences are a risk factor for psychiatric problems in the future. Similar to the findings of this research, Collishaw et al. (2007) showed that compared to individuals without any abuse experience, individuals with childhood abuse experience had higher levels of adult psychopathology. Similarly, in different studies, childhood trauma's being a risk factor for different psychological problems has been emphasized (i.e., Kaya, 2020). Therefore, childhood traumas are risk factors not only during childhood but also for emerging adulthood as they increase the vulnerability for psychopathology.

The examination of childhood traumas based on demographic variables provides valuable information regarding finding the target group for preventive interventions. In this study, there was no significant difference detected between male and female participants' childhood trauma scores. Some other studies in the literature confirmed that childhood trauma experiences were not different between males and females (e.g., Bostancı et., 2006, Çavuşoğlu, 2020). The US Department of Health & Human Services Children's Bureau (2022) has been collecting data every year about childhood trauma incidences, and their report also stated that the male and female percentages of childhood trauma were very close to each other (48.1 and 51.6% respectively). In order to understand childhood traumas in a specific culture, it is important to examine the parenting practices and expectations from children as well as the value of children within a given culture. According to Kağıtçıbaşı and Ataca (2005), the value of a child is described as "the sum total of psychological, social, and economic costs and benefits that parents derive from having children" (p.318). Because parents reflect the culture in which they live, examination of their expectations would give clues about the value that a culture gives for children. In the study about the value of children, it was found that parents had more psychological expectations from their children in the 2000s compared to the 1970s. Despite the increase in the psychological value of children, for children the most desired quality was still "being a good person," while "being an independent person" was the least desired quality (Kağıtçıbaşı & Ataca, 2005). Therefore, by the current research authors, it was commented that regardless of the gender of the child, the parents might have been using the same parenting practices because they want their children to be obedient to their rules and they want them to fulfill their wishes and expectations. Also, what kind of values are attributed to children has probably affected the parenting practices, and parents may have the similar parenting attitudes (i.e., same rules, boundary setting) affecting the occurrence of childhood traumas experienced by the male and female participants.

In this study, the childhood trauma scores of the participants did not differ based on their mother's and father's education level, either. Similar findings have been found in different research findings (e.g., Zeren et., 2012). However, low education level of parents has been found to be a risk factor for childhood trauma incidence in different studies (Derakhshanpour et al., 2017; Örsel et., 2010; Thornberry et al., 2014). In this study, childhood trauma was evaluated with a total score. On the other hand, when childhood traumas are examined as physical, emotional, sexual abuse, and neglect subdimensions, the education level of parents may be a significant factor in increasing or decreasing some specific types of abuse or neglect experiences of children. In a study conducted in Iran (Derakhshanpour et al., 2017), it was emphasized that among educated parents physical abuse toward their children was more common than neglect. On the other hand, neglect experiences among children who had parents with a low level of education was more common (Derakhshanpour et al., 2017).

Similarly, participants' childhood neglect and abuse experiences did not differ based on their SES levels. A similar finding was expressed in a different study (Bostancı et al., 2016). As Oakes and Andrade (2017) suggested, SES is about the individual's access to resources such as material resources (e.g., goods or money), power, friendship networks, educational opportunities, and even leisure time. Therefore, asking about the mother's and father's education level and income level of the participants may not have given the whole status of the participants' SES. Indeed, assessing the SES level of participants is not an easy target for researchers. Even though in this research, the mother's and father's education level was taken into consideration, the SES means more than that (Jeynes, 2002). Asking the participants' perceptions regarding their families' income level may not give the real SES level of their families.

The present study aimed to build upon prior work on childhood trauma by examining the mediating role of difficulties in emotion regulation between the relationship of childhood traumas and resilience among a sample of university students. This mediation analysis provided evidence that difficulties in emotion regulation had mediated the relationship between childhood traumas and resilience. One of the results that emerged from the resilience studies is that negative life experiences do not always have to affect individuals adversely (Howell & Miller-Graff, 2014). Identifying risk and protective factors explaining childhood trauma is important for preventive interventions (McLaughlin & Lambert, 2017). Protective factors leading to an individual's resilience in the face of a negative life event are generally examined as individual factors (e.g., personality, coping, or self-efficacy), family-level factors (e.g., supportive relationships or stable caregiving) as well as community level factors (e.g., peer relationships, non-family member social support, or religion) (Afifi & MacMillan, 2011). Specifically in this study, difficulty in emotion regulation was identified as a risk factor for resilience among university students who had childhood trauma.

Similar to our finding, a considerable amount of research on childhood trauma has shown a positive relationship between childhood traumas and deficits in emotion regulation (i.e., Michopoulos et al., 2015). Among a group of participants diagnosed with major depressive disorder, the relationship between deficits in emotion regulation strategies and depression was documented. Both depression severity and depression lifetime persistence were associated with deficits in emotion regulation (Hopfinger et al., 2016). In a different study comparing 141 maltreated and 87 non-maltreated children, it was found that maltreated children who had less adaptive emotion regulation were more prone to having emotional negativity as well as more contextually unrelated emotions (Shields & Cicchetti, 1998).

As understood, individuals with childhood traumas have more problems in emotion regulation. When interventions that aim to improve emotion regulation strategies were targeted, it was documented that it would be possible to lessen the negative effects of childhood traumas. For instance, Cameron et al. (2018) proved that a 12-week intervention program with a pre-test and post-test design focusing on emotion regulation, resilience, self-awareness, and social functioning could be effective for individuals with adverse childhood experiences regarding improvements in reappraisal and could lead to a decrease in suppression and emotional symptoms, such as depressive symptoms or stress (Cameron et al., 2018). Therefore, childhood traumas' negative consequences on the survivors may be lessened by using emotion regulation interventions.

Childhood trauma experiences are prevalent all over the world. Understanding protective factors affecting those survivors could provide insight into intervention strategies while working with childhood trauma survivors. That is why, in this study, the relationships between childhood trauma, difficulties in emotion regulation, and resilience were studied. One of the most important findings was that difficulties in emotion regulation mediated the relationship between childhood traumas and resilience. Childhood traumas affected the resilience of participants depending on the level of the difficulties they experienced in emotion regulation. Therefore, emotion regulation intervention strategies could be used to help childhood trauma survivors to increase their resilience.

Limitations of the Study

The mediation model included only one mediator variable (difficulties in emotion regulation) so only partial mediation was detected. The model in this study should be improved in further studies to understand the resilience mechanism after childhood traumas.

The age at which the participants experienced trauma was not asked. In fact, in different studies, the importance of age was expressed: the younger ages were significantly at higher risk of developing a disorder after experiencing trauma (e.g., McDermott et al., 2005).

SES levels of participants' families were identified based on the perceptions of the participants. Rather than asking the perceptions of the participants, the actual income level of the families could have given more detailed information. Also, to understand the SES level of the families, questions related to family-related factors should have been directed to the participants.

Suggestions

The mediation model should be tested with different participants with larger samples. In addition, the severity of childhood trauma and the duration or chronicity of trauma should be investigated regarding the effect of complex traumas on children (Thompson et al., 2014). As stated above, in this study, the mother's and father's education level and SES of the family of the participants were asked, and the group analysis showed that there were no significant differences in childhood trauma questionnaires based on these three variables. However, in some studies, it was explained that mother-father relationship status as well as family relationship could be an important factor in understanding childhood trauma. What kind of support the child received from his/her mother and father after the childhood abuse and neglect experience could be a critical factor to consider. Also, relationships with the mother and the father are significant for emotion regulation skills. Furthermore, important family dynamics (e.g., communication styles or relationship quality) apart from the mother's and the father's education level and SES of the family could be a risk or protective factor for the resilience of the child. Therefore, more family-related factors should be examined in further studies.

Given the critical role of the difficulties in emotion regulation in the relationship between childhood traumas and resilience, practitioners working with clients with childhood trauma should focus on the emotion regulation strategies of their clients so that they would have a chance to improve their resilience levels.

In this research, childhood trauma scores were used as a total score for the analysis. However, in the literature, there were some studies examining the effect of different childhood traumas on different psychological problems. For instance, Kuo et al. (2015) have examined the effect of emotional abuse on borderline personality disorder symptoms, and they found that although different forms of childhood abuse were related to borderline symptoms, especially emotional abuse had the biggest impact (Kuo et al., 2015). That is why examining different childhood traumas and their specific impacts on different populations might be critical in understanding the nature and consequences of childhood trauma.

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