Given these previous findings, it appears that adults who were maltreated in their childhood may differ from non-maltreated adults in who are victims of child abuse have a tendency to perpetrate intimate partner aggression compared with non-abused women (30,31) that increased perception of social isolation and social isolation were significantly associated with childhood sexual abuse (29). Women self-development result in poor interpersonal relationships in adulthood (25,26,27,28). In a study of 85 college women, it was found impairments including deteriorations in self-awareness, agency, self-continuity and self-coherence (24). Such impairments during early childhood trauma and (b) antecedents of adults’ characteristics in terms of intimate relationships. In a 25-year longitudinal design study, the authors reported intergenerational continuities in the impaired quality of adults’ intimate relationships mediated by childhood trauma and (b) antecedents of adults’ characteristics in terms of intimate relationships. Colman and Berlin and Dodge (22) have claimed that adults’ internal working models of attachment and social information processing (17,20,21). Berlin and Dodge (22) have claimed that adults’ internal working models of attachment and social information processing (17,20,21). Widom (23) integrate and extend the findings about the sequelae to maltreatment in childhood in 2 domains: (a) long-term effects of childhood trauma and (b) antecedents of adults’ characteristics in terms of intimate relationships. In a 25-year longitudinal design study, the authors reported intergenerational continuities in the impaired quality of adults’ intimate relationships mediated by childhood maltreatment.

The experience of childhood abuse may also generate long-term deleterious effects on the victims’ mental health and psychosocial functioning (15,16). Childhood traumatic experiences have been found to be associated with miscellaneous psychiatric disorders such as dissociative, posttraumatic stress, borderline personality disorder, generalized anxiety and major depression (2,17,18,19). Researchers have suggested that different types of adversities in childhood can produce similar patterns of negative outcomes in adulthood (17,20,21). Berlin and Dodge (22) have claimed that adults’ internal working models of attachment and social information processing patterns mediate the association between childhood maltreatment and quality of intimate relationships in adulthood. Colman and Widom (23) integrate and extend the findings about the sequelae to maltreatment in childhood in 2 domains: (a) long-term effects of childhood trauma and (b) antecedents of adults’ characteristics in terms of intimate relationships. In a 25-year longitudinal design study, the authors reported intergenerational continuities in the impaired quality of adults’ intimate relationships mediated by childhood maltreatment.

It has been suggested that child abuse has harmful effects on the child’s emerging sense of self and leads to multiple self-system impairments including deteriorations in self-awareness, agency, self-continuity and self-coherence (24). Such impairments during early self-development result in poor interpersonal relationships in adulthood (25,26,27,28). In a study of 85 college women, it was found that increased perception of social isolation and social isolation were significantly associated with childhood sexual abuse (29). Women who are victims of child abuse have a tendency to perpetrate intimate partner aggression compared with non-abused women (30,31) Given these previous findings, it appears that adults who were maltreated in their childhood may differ from non-maltreated adults in

INTRODUCTION

Negative influences of early traumatic experiences on psychological well-being have long been recognized and well-documented (1,2,3). Several studies have examined the connections between psychological distress and various types of childhood trauma such as sexual abuse (4,5,6), physical abuse (7,8), emotional abuse (9,10) and neglect (11,12). Recently, researchers have recognized higher rates of victimization in more than one type of childhood trauma and more negative outcomes of polyvictimization (13,14).

The experience of childhood abuse may also generate long-term deleterious effects on the victims’ mental health and psychosocial functioning (15,16). Childhood traumatic experiences have been found to be associated with miscellaneous psychiatric disorders such as dissociative, posttraumatic stress, borderline personality disorder, generalized anxiety and major depression (2,17,18,19). Researchers have suggested that different types of adversities in childhood can produce similar patterns of negative outcomes in adulthood (17,20,21). Berlin and Dodge (22) have claimed that adults’ internal working models of attachment and social information processing patterns mediate the association between childhood maltreatment and quality of intimate relationships in adulthood. Colman and Widom (23) integrate and extend the findings about the sequelae to maltreatment in childhood in 2 domains: (a) long-term effects of childhood trauma and (b) antecedents of adults’ characteristics in terms of intimate relationships. In a 25-year longitudinal design study, the authors reported intergenerational continuities in the impaired quality of adults’ intimate relationships mediated by childhood maltreatment.

It has been suggested that child abuse has harmful effects on the child’s emerging sense of self and leads to multiple self-system impairments including deteriorations in self-awareness, agency, self-continuity and self-coherence (24). Such impairments during early self-development result in poor interpersonal relationships in adulthood (25,26,27,28). In a study of 85 college women, it was found that increased perception of social isolation and social isolation were significantly associated with childhood sexual abuse (29). Women who are victims of child abuse have a tendency to perpetrate intimate partner aggression compared with non-abused women (30,31) Given these previous findings, it appears that adults who were maltreated in their childhood may differ from non-maltreated adults in

ABSTRACT

Introduction: Cognitive theories of psychopathology have generally proposed that early experiences of childhood abuse and neglect may result in the development of early maladaptive self-schemas. Maladaptive core schemas are central in the development and maintenance of psychological symptoms in a schema-focused approach. Psychosocial dysfunction in individuals with psychological problems has been consistently found to be associated with symptom severity. However, till date, linkages between psychosocial functioning, early traumatic experiences and core schemas have received little attention. The aim of the present study was to explore the relations among maladaptive interpersonal styles, negative experiences in childhood and core self-schemas in non-clinical adults.

Methods: A total of 300 adults (58% women) participated in the study. The participants completed a socio-demographic questionnaire, Young Schema Questionnaire, Childhood Trauma Questionnaire and Interpersonal Style Scale.

Results: Hierarchical regression analyses revealed that the Disconnection and Rejection and Impaired Limits schema domains were significant antecedents of maladaptive interpersonal styles after controlling for demographic characteristics and childhood abuse and neglect. Associations of child sexual abuse with Emotionally Avoidant, Manipulative and Abusive interpersonal styles were mediated by early maladaptive schemas. Early maladaptive schemas mediated the relations of emotional abuse with Emotionally Avoidant and Avoidant interpersonal styles as well as the relations of physical abuse with Avoidant and Abusive interpersonal styles.

Conclusion: Interpersonal styles in adulthood are significantly associated with childhood traumatic experiences. Significant relations between early traumatic experiences and maladaptive interpersonal styles are mediated by early maladaptive schemas.

Keywords: Early maladaptive schemas, schema domains, interpersonal schemas, interpersonal styles, child abuse and neglect
the overall quality of their interpersonal relationships. Research has evi-
denced for that enduring negative self-schemas, which are interacting with
the abuse-specific schematic content, appear to be antecedents of poor
self-functioning and maladaptation subsequent to abuse (32,33,34).

Although childhood adversity is a significant vulnerability factor for the late
onset of psychopathology, it does not mean that everyone who has expe-
rienced such negative events will manifest severe psychological symptoms
(35). In the cognitive literature, it has been proposed that internal cognitive
processes play a mediating role in clinical symptoms associated with child-
hood traumatic experiences (36,37,38,39). These underlying cognitive
patterns have been referred to as relational schemas or core beliefs or
early maladaptive schemas (EMS) (40,41,42).

According to Beck’s cognitive model of psychopathology, maladaptive
self-schemas constitute a vulnerability factor for psychological problems
(43,44). Beck proposed that the content of a maladaptive self-schema is
developed in early childhood, ingrained by particularly adverse interper-
sonal experiences and activated by later negative life circumstances (44).
In the concept of maladaptive cognitive schemas, which have been ad-
vanced by Young, core beliefs or maladaptive schemas underlying various
types of psychopathological symptoms are described in a more detailed
manner (42,45,46). Young clustered EMSs in 5 schema domains as follows:
1) Disconnection and Rejection, 2) Impaired Autonomy and Per-
formance, 3) Impaired Limits, 4) Other-directedness and 5) Overvigilance
and Inhibition (42).

A number of studies revealing the relationship between EMSs and late
onset of psychopathology have been conducted and the subject has been
receiving increased attention. Bernstein (47) proposed a cognitive model
of personality disorders in patients with histories of emotional abuse
or neglect based on Young’s notion of maladaptive schemas, evaluating the
relationship between early adverse experiences and later psychopathol-
y. Lumley and Harkness (48) detected that sexual and physical abuse ex-
perienced in childhood may result in the development of schemas related to
the ‘hazard’ theme (weakness against threats and a sense of insecurity),
whereas childhood neglect may result in the development of schemas re-
lated to ‘loss’ and ‘insignificance’ themes (emotional deprivation and social
isolation). It was reported that the relationship between childhood abuse
and depression was mediated by the Disconnection/Rejection, Impaired
Autonomy/Performance and Impaired Limits cognitive domains in a clin-
nical outpatient sample (49). Another study examining the mediating role
of EMSs among parental perception and depressive symptoms in young
adults demonstrated that the symptom of depression was associated with
the Defectiveness and Shame, Insufficient Self-control and Vulnerabil-
ity to Harm schemas (50). Substantial linkages of childhood emotional
abuse and neglect with symptoms of anxiety and depression were found
to be mediated by the schemas of Vulnerability to Harm, Self-sacrifice
and Defectiveness/shame in a non-clinical college sample (51). In a study
conducted by Harding, Burns (52) on 127 women who were child sexual
abuse survivors, it was found that participants who reported higher scores
of EMSs also reported more severe PTSD symptoms. Researchers have
provided further evidence that significant associations of childhood traum-
atic experiences with symptoms of bulimic behaviors, dissociation and
suicidality are also mediated by core self-schemas (53,54,55).

Young, Klosko (42) have accentuated the role of early frustrating ex-
periences with parents, siblings and peers as the developmental origins of
EMSs, which affect self-perception and strongly influence interpersonal
relationships. Considering the variance of all Young Schema Questionnaire
(YSQ) subscales taken together in a sample consisting of adult mental
health service users, Mason, Platts (56) found that the fearful and preoc-
cupied attachment style groups reported significant more EMSs than se-
cure and dismissing groups. Despite plausible links between adverse inter-
personal experiences in childhood, EMSs and interpersonal styles, there
has been a paucity of literature regarding how childhood traumatic ex-
periences relate to psychosocial functioning in adulthood and which core
schemas function as a conceptual bridge linking early traumatic experienc-
es with adult interpersonal style. In a preliminary study, Messman-Moore
and Coates (57) found that childhood traumatic experiences predict later
psychosocial strains in a large social context, including romantic relation-
ships, friendships and work or school-related relationships. Interpersonal
problems related to early traumatic experiences in adulthood are mediat-
ed by EMSs. It appears that psychological abuse affects the development
of EMSs, which in turn results in later interpersonal difficulties.

EMSs are accepted to act as templates for information processing that
affect an individual’s emotional reactions to life events and interpersonal
relation style (56,58). Therefore, EMSs are assumed to shape self-percep-
tion and interpersonal relationships. Under the theoretical framework of
the cognitive literature, we studied the possible relations between child-
hood abuse and adult interpersonal relationship styles. We aimed to ad-
dress the possible connections among childhood traumatic experiences,
EMSs and interpersonal relationship style in a non-clinical adult sample. We
questioned whether EMSs play a mediating role in the linkages between
early childhood traumatic experiences and adult interpersonal relation-
ship style. The associations between psychological variables were assessed
after controlling for the possible effects of demographic variables such as
gender, age and income. Given the theoretical considerations and previ-
ous findings, it was hypothesized that individuals who report childhood
traumatic experiences would show increased evidence of maladaptive
schemas, particularly interpersonal themes such as the Disconnection and
Rejection, Impaired Autonomy and Performance and Other-directedness
schema domains. In addition, we predicted that the links between mal-
adaptive interpersonal styles and childhood traumatic experiences would
be mediated by EMSs. The study is a preliminary research addressing the
relations between these variables and it is anticipated to make significant
contribution to the literature in the theoretical and therapeutic sense.

METHODS

Participants
In total, 300 adults from Ankara and Istanbul, 2 metropolises in the western
part of Turkey, participated in the study (175 (58%) women). The mean age
of the participants was 31.44±6.24 years (range: 20–48 years). The demo-
graphic characteristics of the participants are presented in Table 1.

Procedure
The study was conducted at Ankara University and Marmara University.
Undergraduates helped researchers in contacting their parents or adult
friends who were willing to participate in the study. Before participation,
each participant was provided information about the study. After writ-
ten informed consent was obtained, the questionnaires were completed
by the participants. All participants completed the questionnaires them-
selves; however, subjects with reading or comprehension problems com-
pleted the questionnaires with the aid of a researcher and the items were
read to them and rated in line with their answers. This study was approved
by the ethics committee of Ankara University.

Assessment Instruments
A demographic questionnaire, YSQ, the Childhood Trauma Question-
naire (CTQ) and the Interpersonal Style Scale (ISS) were administered
in the study.
Demographic questionnaire: A demographic questionnaire was developed by the authors to assess demographic information pertaining to the participants. In the demographic form, age, sex, level of education, marital status, level of income, level of father’s education and level of mother’s education were assessed.

Young Schema Questionnaire
The YSQ was developed to assess EMSs (45,59). Participants completed the Turkish version of the YSQ Short Form 3 (YSQ-SF 3) for evaluation of EMSs. EMSs measured by the YSQ are clustered into 5 schema domains depending on the unmet emotional needs: 1) Disconnection and Rejection, 2) Impaired Autonomy and Performance, 3) Impaired Limits, 4) Other-directedness and 5) Overvigilance and Inhibition (42). The validity and reliability study of the Turkish version of the YSQ-SF 3 has been conducted by Soygut, Karaosmanoglu (60). The internal consistency coefficients of the Turkish version of the instrument range from 0.63 to 0.80.

Childhood Trauma Questionnaire
The CTQ is a self-report measure developed by Bernstein, Fink (61). The CTQ has 3 versions consisting of 53, 40 and 28 items; the 40-question version was used in the current study. It is a retrospective measure used for the evaluation of childhood abuse experienced before the age of 18. Participants rate each item on a Likert-type scale ranging from (1) Never to (5) Very Often. Higher scores indicate more severe childhood abuse and neglect. The Turkish version of the CTQ has adequate reliability and validity. The original form of the CTQ has 5 sub-scales; however, a 3-factor structure was confirmed for the Turkish version: Emotional Abuse and Neglect, Physical Abuse and Neglect and Sexual Abuse. The internal reliability of the Turkish version is 0.96 for the overall CTQ and 0.94–96 for the subscales of the instrument (62,63).

Interpersonal Style Scale
The ISS is a 60-item self-report questionnaire designed by Şahin, Çeri (64) in order to assess maladaptive interpersonal styles. The ISS has 6 factors: “Dominating,” “Avoidant,” “Aggressive,” “Emotionally Avoidant,” “Manipulative,” and “Abusive.” In the initial psychometric analysis of the

Table 1. Demographic characteristics of the sample (n=300)

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>125</td>
<td>41.67</td>
</tr>
<tr>
<td>Female</td>
<td>175</td>
<td>58.33</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>3</td>
<td>1.00</td>
</tr>
<tr>
<td>Literate</td>
<td>12</td>
<td>4.00</td>
</tr>
<tr>
<td>Primary School</td>
<td>50</td>
<td>16.67</td>
</tr>
<tr>
<td>Secondary School</td>
<td>27</td>
<td>9.00</td>
</tr>
<tr>
<td>High School</td>
<td>84</td>
<td>28.00</td>
</tr>
<tr>
<td>University</td>
<td>124</td>
<td>41.33</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>146</td>
<td>48.67</td>
</tr>
<tr>
<td>Average</td>
<td>117</td>
<td>39.00</td>
</tr>
<tr>
<td>Upper</td>
<td>37</td>
<td>12.33</td>
</tr>
<tr>
<td>Marital status*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>94</td>
<td>32.87</td>
</tr>
<tr>
<td>Engaged</td>
<td>13</td>
<td>4.55</td>
</tr>
<tr>
<td>Married</td>
<td>159</td>
<td>55.59</td>
</tr>
<tr>
<td>Divorced or Widow</td>
<td>20</td>
<td>6.99</td>
</tr>
</tbody>
</table>

*The summation is less than the total n because of missing observations

RESULTS

Statistical Analysis
Initially, descriptive statistics for demographic characteristics and psychometric instruments were computed. To examine the associations between abuse subtype and cognitive schema domains, we computed Pearson correlations. Possible influences of demographic characteristics, severity of early traumatic experiences and EMSs on interpersonal style were assessed using 6 multiple regression models. Categorical variables in terms of gender, level of education and level of income were entered in the regression models after being converted into dummy variables. Changes in $R^2$ for each variable set in terms of demographic characteristics, childhood traumatic experiences and EMSs and total model $R^2$ were calculated. The statistical significance threshold was held at $p<0.05$.

We evaluated the mediating role of EMSs in accordance with the notion proposed by Baron and Kenny (65) to examine whether the associations between maladaptive interpersonal relationship styles and childhood abuse are mediated by EMSs or not. In the regression analyses, the continuous scores of participants obtained with the YSQ, CTQ and ISS were utilized. We conducted regression analyses in 2 steps. In the first step, we regressed the scores of each maladaptive interpersonal style on the severity scores of childhood traumatic experiences after controlling for demographic characteristics. In the second step, we assessed the possible influences of EMSs on maladaptive interpersonal styles after controlling for demographic characteristics and severity of childhood traumatic experiences.

In the first step, 6 regression models were obtained. Manipulative and Abusive interpersonal styles were positive correlates of child sexual abuse ($\beta=0.14$, $t=-2.52$, $p<0.05$ for the Manipulative subscale and $\beta=0.12$, $t=-2.25$; $p<0.05$ for the Abusive subscale). Dominating ($\beta=0.30$, $t=3.87$, $p<0.01$), Avoidant ($\beta=0.18$, $t=2.30$, $p=0.05$), Aggressive ($\beta=0.27$, $t=3.39$, $p<0.01$) and Abusive ($\beta=0.20$, $t=2.51$, $p<0.05$) interpersonal styles were found to be significantly associated with the severity of physical abuse and neglect. Avoidant ($\beta=0.22$, $t=2.81$, $p<0.01$) and Emotionally Avoidant ($\beta=0.36$, $t=4.68$, $p<0.01$) interpersonal styles were significantly predicted by emotional abuse and neglect.

To understand the influence of demographic characteristics, severity of childhood traumatic experiences and EMS content on the interpersonal styles of the participants, we conducted 6 additional multiple regression
analyses in which the subscales of the ISS were dependent variables. In the second step, 3 sets of variables were entered together into the multiple regression models. The partial effect of each independent variable was evaluated after controlling for other independent variables. In this way, the possible influences of childhood traumatic experiences on maladaptive interpersonal styles were assessed after controlling for demographic characteristics and EMSs. The results derived from the regression models in the second step are presented in Table 4.

The second step of regression analyses with respect to demographical characteristics indicated that age was negatively associated with Aggressive (β = −0.15, t = −2.76, p < 0.01) and Abusive interpersonal styles (β = −0.27, t = −3.256; p < 0.01). These characteristics were significantly linked to Aggressive interpersonal style (β = −0.18, t = −2.99, p < 0.01). On the contrary, the economic status of the older individuals was not a significant predictor of interpersonal styles after controlling for other independent variables.

For the possible associations between the severity of abuse subtypes and interpersonal styles after adjusting for the effects of demographic characteristics and EMSs, we found a negative linkage between sexual abuse and Emotionally Avoidant interpersonal style (β = −0.12, t = −2.460, p < 0.05). However, significant linkages of Manipulative and Abusive interpersonal styles to child sexual abuse became trivial after we entered EMSs into the second step of regression models. The severity of physical abuse and neglect was significantly linked to both Dominating (β = 0.19, t = 2.828, p < 0.01) and Aggressive (β = 0.16, t = 2.262, p < 0.05) interpersonal styles. On the contrary, physical abuse and neglect was not a substantial antecedent of Avoidant and Abusive interpersonal styles after controlling for core beliefs. Similarly, emotional abuse was no longer the antecedent of Avoidant and Emotionally Avoidant interpersonal styles and linkages between the severity of emotional abuse and subtypes of interpersonal styles were not significant in the regression models adjusted for EMSs and demographic characteristics. Finally, in the second step of regression analyses, we addressed the partial influences of EMS domains on interpersonal style after controlling for the partial effects of demographic characteristics and severity of abuse subtype. All types of maladaptive interpersonal styles were significantly associated with the Impaired Limits schema domain as well as the Disconnection and Rejection schema domain, with an exception of Manipulative style, which was not substantially influenced by schemas included in the Disconnection and Rejection domain. A tendency to Other-directedness was negatively connected with Aggressive interpersonal style (β = −0.16, t = −2.365, p < 0.05). The Overvigilance and Inhibition schemas were significantly linked to Aggressive (β = 0.16, t = 2.021; p < 0.05) and Abusive interpersonal styles (β = 0.27, t = −3.256; p < 0.01). These results are presented in Table 4.

**DISCUSSION**

A schema-focused approach is a substantial cognitive model of psychotherapy that has been effectively utilized in therapeutic interventions for psychopathology, particularly in personality disorders (47,66,67). Interpersonal style is a key component in psychosocial functioning and relational problems are one of the benchmarks for severe affect regulation problems. Linehan delineates the pivotal role of psychosocial functioning for positive treatment outcomes and interpersonal effectiveness skill training is the first step in dialectic cognitive behavioral treatment of psychopathology (68,69). Ball and Young (66) asserted that positive improvements in interpersonal functioning and coping capacity occurred in patients successfully treated with a schema-focused therapy. Therefore, in this study, we focused on the associations between childhood traumatic experiences and interpersonal styles and the mediating role of EMSs on psychosocial functioning. We found that consistent with the theoretical considerations, significant relations between childhood traumatic experiences and interpersonal styles were mediated by EMSs.

Scholars have consistently emphasized short-term and long-term poor psychological outcomes that may be directly attributed to early traumatic experiences (16,70,71). In accordance with the cognitive models of psychopathology, researchers have provided strong evidence that EMSs are linked to traumatic experiences in childhood (48,49,54,57,72). Our findings are consistent with those of previous studies. In our analyses, we found mild associations between sexual abuse and interpersonal schema domains but strong associations of EMSs with both physical abuse and emotional abuse. Our findings supported and extended the assumptions of the schema therapy model. As noted by Young et al. (42), individuals who have schemas on the Disconnection and Rejection domain are
thought to have a childhood abuse history. However, it appears that relations between childhood trauma and EMSs cannot be constrained to a specific schema domain such as Disconnection and Rejection. Negative consequences of traumatic experiences in terms of interpersonal problems are also typical among individuals who report negative experiences in childhood (15). It has been suggested that the concept of internal working models is central to the developmental outcomes of childhood trauma and neglect (22,73,74). According to the concept of EMSs, early abusive experiences become internalized as mental representations and shape reactions to interpersonal situations in the future (75,76). Given the theoretical background, our findings provide additional support that the Disconnection and Rejection and Impaired Autonomy and Performance schema domains are generally significant antecedents of maladaptive interpersonal styles. Moreover, the Overvigilance and Inhibition schema domain significantly predicted Aggressive and Abusive interpersonal styles.

The schematic theory of psychopathology asserts that maladaptive schemas are developed in early childhood by virtue of negative interpersonal experiences (41,42). To date, relations between child abuse, core beliefs and interpersonal functioning have received little attention and few studies have found that childhood traumatic experiences are associated with later interpersonal dysfunctions mediated by EMSs (56,57). Our results are in line with the previous findings that child sexual abuse is significantly linked to Manipulative and Abusive interpersonal styles after controlling for demographic features. However, the relations between sexual abuse and maladaptive interpersonal styles became unsubstantial and the connection between Emotionally Avoidant style and sexual abuse reversed, indicating that the associations of sexual abuse with Emotionally Avoidant, Manipulative and Abusive interpersonal styles were mediated by EMSs. Dominating, Avoidant, Abusive and Aggressive interpersonal styles were found to be associated with physical abuse and neglect after controlling for only demographic characteristics. However, significant associations of Dominating and Aggressive interpersonal styles with physical abuse and neglect disappeared after the 5 domains of EMSs were entered in the model. These findings indicated that proneness to Dominating and Aggressive behaviors among physically abused individuals were mediated by core negative beliefs that probably originated from early aversive physical experiences. On the contrary, connections of Avoidant and Abusive interpersonal styles to emotional abuse and neglect were also mediated by negative core schemas, because the significant relations became trivial after controlling for EMSs. These results are consistent with the findings that EMSs mediate the relations between early childhood trauma and later psychosocial difficulties in adulthood (56,57). Adults with an abuse history are more prone to perform poorly in their interpersonal contacts and to have problems in emotion regulation abilities such as recognizing, understanding and expressing emotions (77,78,79,80). There are findings in the literature suggesting that an abused child undergoes a process in which he identifies himself with the abuser and tends to exhibit aggressive and offensive behaviors (11,81). Particularly, psychological stress caused by parents’ early traumatic experiences appears to be an agent of intergenerational transmission of childhood trauma (82,83). However, in our results, it was obvious that maladaptive interpersonal styles among abused individuals were significantly predicted by negative self-schemas among abused subjects. Abuse in childhood affects the understanding of self and others, which in turn shapes psychological well-being and interpersonal relations. These findings also support the mediating role of EMSs defined in the schema model, which emphasizes the impact of EMSs on information processing and interpretation of experiences (42,46). In addition, interpersonal skill training in cognitive behavioral interventions for abused individuals appears to be important for more positive treatment outcomes (66,69).

The study has several limitations. Assessment of child abuse appears to be sensitive to design and language of research in its nature (84,85). Child abuse is generally not reported or underreported in studies (86). Similar to most studies concerning childhood traumatic experiences, this study used retrospective self-reports of participants to assess childhood abuse and neglect. The non-abused sample may have included participants who experienced child abuse but did not disclose their situation. Second, in the current study, we obtained excessively high rates of both emotional abuse and neglect and physical abuse and neglect. In the original form of the CTI developed by Bernstein et al. (61), physical neglect is assessed separately from physical abuse and emotional abuse. On the contrary, in the Turkish form of the CTI, the neglect subscales are merged with the abuse subscales for physical and emotional trauma in childhood. Therefore, we obtained excessively high rates of both physical abuse and neglect and emotional abuse and neglect. Abuse and neglect should have been assessed separately and this was the most important limitation of our study. Third, the research design of the study was cross-sectional. A longitudinal research design may have provided more reliable and profound information pertaining to the relations addressed in the study.

<table>
<thead>
<tr>
<th>Table 4. Regression of demographic characteristics, severity of childhood trauma and EMSs on interpersonal style (n=300)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>β</td>
</tr>
<tr>
<td>Dominating</td>
</tr>
<tr>
<td>Avoidant</td>
</tr>
<tr>
<td>Aggressive</td>
</tr>
<tr>
<td>Emotionally Avoidant</td>
</tr>
<tr>
<td>Manipulative</td>
</tr>
<tr>
<td>Abusive</td>
</tr>
</tbody>
</table>

<sup>a</sup>Gender: 0=Male, 1=Female  
<sup>b</sup>Education: 0=Illiterate, 1=Literate, 2=Primary School, 3=Secondary School, 4=High School, 5=University  
<sup>c</sup>Income: 0=Low, 1=Average, 2=Upper
Table 4. Continued

<table>
<thead>
<tr>
<th></th>
<th>Disconnection and rejection</th>
<th>Impaired autonomy and performance</th>
<th>Impaired limits</th>
<th>Others-directedness</th>
<th>Overvigilance and inhibition</th>
<th>$\Delta R^2$</th>
<th>$R^2$</th>
<th>$F(12, 287)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominating</td>
<td>0.48</td>
<td>4.838**</td>
<td>-0.12</td>
<td>-1.405</td>
<td>0.29</td>
<td>5.560**</td>
<td>0.07</td>
<td>0.039</td>
</tr>
<tr>
<td>Avoidant</td>
<td>0.38</td>
<td>3.844**</td>
<td>0.11</td>
<td>1.279</td>
<td>0.29</td>
<td>5.434**</td>
<td>0.11</td>
<td>-1.734</td>
</tr>
<tr>
<td>Aggressive</td>
<td>0.28</td>
<td>2.660**</td>
<td>0.04</td>
<td>0.392</td>
<td>0.28</td>
<td>4.868**</td>
<td>-0.16</td>
<td>-2.365*</td>
</tr>
<tr>
<td>Emotionally Avoidant</td>
<td>0.27</td>
<td>2.703**</td>
<td>0.16</td>
<td>1.895</td>
<td>0.19</td>
<td>3.576**</td>
<td>-0.11</td>
<td>-1.809</td>
</tr>
<tr>
<td>Manipulative</td>
<td>0.17</td>
<td>1.568</td>
<td>-0.01</td>
<td>-0.102</td>
<td>0.15</td>
<td>2.647**</td>
<td>0.01</td>
<td>0.202</td>
</tr>
<tr>
<td>Abusive</td>
<td>0.46</td>
<td>4.185**</td>
<td>-0.19</td>
<td>-2.090*</td>
<td>0.27</td>
<td>4.556**</td>
<td>-0.07</td>
<td>-1.070</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; $\beta$=Standardized beta coefficient

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study has received no financial support.

**REFERENCES**

38. Hankin BL. Childhood maltreatment and psychopathology: Prospective tests of attachment, cognitive vulnerability, and stress as mediating processes. Cognit Ther Res 2005; 29:645-671. [CrossRef]
40. Baldwin MW. Relational schemas and the processing of social information. Psychol Bull 1992; 112:461-484. [CrossRef]
47. Bernstein DP. Cognitive therapy of personality disorders in patients with histories of emotional abuse or neglect. Psychiatric Annals 2002; 32:618-628. [CrossRef]
51. Wright MO, Crawford E, Del Castillo D. Childhood emotional maltreatment and later psychological distress among college students: The mediating role of maladaptive schemas. Child Abuse Negl 2009; 33:59-68. [CrossRef]
66. Ball SA, Young JE. Dual focus schema therapy for personality disorders and substance dependence: Case study results. Cognitive and Behavioral Practice 2000; 7:270-281. [CrossRef]
82. Milner JS, Thomsen CJ, Crouch JL, Rabenhorst MM, Martens PM, Dyslin CW, Guimond JM, Stander VA, Merrill LL. Do trauma symptoms mediate the relationship between childhood physical abuse and adult child abuse risk? Child Abuse Negl 2010; 34:332-344. [CrossRef]