THE MEDIATING ROLE OF MINDFULNESS, PSYCHOLOGICAL FLEXIBILITY, EXPERIENTIAL AVOIDANCE AND COGNITIVE FLEXIBILITY ON THE RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND SOMATIZATION

İLAYDA ÖZDEMİR

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ABSTRACT

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Özdemir, İlayda

Master's Program in Clinical Psychology

Thesis Advisor: Asst. Prof. Dr. Yasemin Meral Öğütçü

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The aim of the study was to investigate the mediating roles of mindfulness, psychological flexibility, experiential avoidance and cognitive flexibility in the association between childhood trauma and somatization. 380 people between the ages of 18-76 participated. Sociodemographic Information Form, somatization subscale of the Symptom Check List, Childhood Trauma Questionnaire, Mindful Attention Awareness Scale, Psychological Flexibility Scale, The Cognitive Flexibility Scale and Multidimensional Experiential Avoidance Questionnaire-30 were conducted online via Google Forms. Simple mediation analyses were performed to analyze the mediating role of mindfulness, psychological and cognitive flexibility on the

relationship between childhood trauma and somatization. To test the mediating role of experiential avoidance and its 6 subdimensions, multiple mediation analysis was used. While it was found that mindfulness and psychological flexibility had a mediating role in the relationship between childhood trauma and somatization, the mediating role of cognitive flexibility and experiential avoidance was not observed. Besides, a mediator role was observed for the sub-dimension of repression and denial. This study contributed to the importance of studying the effects of the mediator role for future studies on the relationship between childhood trauma and somatization. The findings of the present study provide a better understating of the relationship between childhood traumas and somatization. Furthermore, while Cognitive Behavioral Therapy was found as an effective treatment for somatization, the present study highlights the importance of the third wave approaches such as Acceptance and Commitment Therapy and Mindfulness Based Cognitive Therapy.

Keywords: Somatization, Childhood Trauma, Mindfulness, Psychological Flexibility, Cognitive Flexibility, Experiential Avoidance

ÖZET

ÇOCUKLUK TRAVMALARI VE SOMATİZAYON ARASINDAKİ İLİŞKİDE; BİLİNÇLİ FARKINDALIK, PSİKOLOJİK ESNEKLİK, DENEYİMSEL KAÇINMA VE BİLİŞSEL ESNEKLİĞİN ARACILIK ROLLERİ

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Bu çalışmanın amacı, çocukluk çağı travması ile somatizasyon arasındaki ilişkide bilinçli farkındalık, psikolojik esneklik, deneyimsel kaçınma ve bilişsel esnekliğin aracı rollerini araştırmaktır. 18-76 yaş arası 380 kişi katılmıştır. Sosyodemografik Bilgi Formu, Semptom Kontrol Listesi'nin somatizasyon alt ölçeği, Çocukluk Çağı RuhsalTravma Ölçeği, Bilişsel Farkındalığı Ölçeği, Psikolojik Esneklik Ölçeği, Bilişsel Esneklik Ölçeği ve Çok Boyutlu Yaşantısal Kaçınma Ölçeği-30 Google Formlar üzerinden online olarak yapılmıştır. Çocukluk çağı travması ile somatizasyon arasındaki ilişkide bilinçli farkındalık, psikolojik ve bilişsel esnekliğin aracı rolünü analiz etmek için basit aracılık analizleri yapılmıştır. Deneyimsel kaçınma ve 6 alt boyutunun aracılık rolünü test etmek için çoklu aracılık analizi kullanılmıştır.

Çocukluk çağı travmaları ile somatizasyon arasındaki ilişkide bilinçli farkındalık ve psikolojik esnekliğin aracı rolü olduğu saptanırken, bilişsel esnekliğin ve deneyimsel kaçınmanın aracı rolü gözlenmemiştir. Ayrıca baskılama inkar alt boyutunda aracılık rolü gözlenmiştir. Bu çalışma, çocukluk çağı travmaları ile somatizasyon arasındaki ilişkiye ilişkin gelecekteki araştırmalar için aracılık rolünün etkilerinin araştırılmasının önemine katkıda bulunmuştur. Bu çalışmanın bulguları, çocukluk çağı travmaları ile somatizasyon arasındaki ilişkinin daha iyi anlaşılmasını sağlamaktadır. Ayrıca, Bilişsel Davranışçı Terapi somatizasyon için etkili bir tedavi olarak bulunurken, bu çalışma Kabul ve Kararlılık Terapisi ve Bilinçli Farkındalık Temelli Bilişsel Terapi gibi üçüncü dalga yaklaşımlarının önemini vurgulamaktadır.

Anahtar Kelimeler: Somatizasyon, Çocukluk ÇağıTravması, Bilinçli Farkındalık, Psikolojik Esneklik, Bilişsel Esneklik, Deneyimsel Kaçınma

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LIST OF ABBREVIATIONS

ACT: Acceptance and Commitment Therapy

BDS: Bodily Distress Syndrome

CTQ: Childhood Trauma Questionnaire

CFS: Cognitive Flexibility Scale

DSM: Diagnostic and Statistical Manual of Mental Disorders

MAAS: Mindful Attention Awareness Scale

MBSR: Mindfulness-Based Stress Reduction

MBCT: Mindfulness- Based Cognitive Therapy

MEAQ: Multidimensional Experiential Avoidance Questionnaire

PFS: Psychological Flexibility Scale

PTSD: Post-Traumatic Stress Disorder

SCL: Symptom Check List

CHAPTER 1: INTRODUCTION

Childhood experiences have been investigated excessively and associated with psychological and physical problems in childhood and adulthood (Felitti et al., 1998; Pervanidou and Chrousos, 2007). Examples of these are developmental and emotional problems in children (Chan and Yeung, 2009), health-risk behaviors among adolescents (Briggs-Gowan et al., 2010) and many persistent, challenging psychological and physical problems among adults (Chartier et al., 2010; Felitti and Anda, 2010; Kalmakis and Chandler, 2014). On the other hand, somatization can present as one of these psychological issues (Anda et al., 2006). Somatization refers to the association and expression of psychological conflicts and pain with physical symptoms (Lipowski, 1987; Lipowski, 1988). The clinical manifestation and somatic symptoms associated with bodily restlessness and exaggeration are widely accepted as the most common form of expressing emotional distress in the world (Şahin et al., 2009). Ninety percent of somatization disorder begins before the age of 25; the first symptoms appear primarily during adolescence. Genetic, sociocultural, psychodynamic factors and coping mechanisms are the etiology of the disorder (Özenli et al., 2009). According to studies, childhood traumas are associated with somatization. (Kealy et al., 2018; Waldinger et al., 2006). In the relationship between childhood trauma and somatization, childhood traumas (including sexual, physical and emotional abuse and neglect) have been empirically associated with reports of a wide variety of symptoms in adults, including chronic, without medical explanation (Sansone, Wiederman and Sansone, 2001). In conclusion, it is crucial to understand the mechanisms of the relationship between childhood trauma and somatization. The definition of these mediating mechanisms can contribute to both gaining a different perspective in understanding somatization and the client during the treatment process and improving the therapy process (Kroska, Roche and O'Hara, 2018). At this point, it can be encountered psychological and cognitive flexibility from mechanisms. Furthermore, studies have investigated that mindfulness, psychological flexibility and experiential avoidance; separately and differently, mediate the relationship between childhood traumas and psychological symptoms (such as; somatization) (Kroska et al., 2018; Masuda, Mandavia and Tully, 2014; Masuda and Tully, 2012; Richardson and

Jost, 2019). Moreover, cognitive flexibility has also been associated with childhood trauma and somatization (Doğan Yatar, 2020; Ji and Wang, 2018).

As a result, looking at the literature, the different relationships between childhood traumas and somatization and, mindfulness (Fjorback et al., 2013; Ortiz and Sibinga, 2017; Thompson and Waltz, 2010) psychological flexibility (Bryan, Ray-Sannerud and Heron, 2015; Leonidou et al., 2019; Tavakoli et al., 2019), experiential avoidance (Cullingham et al., 2020; Marx and Sloan, 2002; Tull, Gratz, Salters and Roemer, 2004) and cognitive flexibility (Doğan Yatar, 2020; Whiting et al.,2017; Zhou et al., 2020) have been presented and studied through researches. In addition to the relationship of these variables, it was thought that it would be a novelty to explain the relationship in detail with mediator roles. It is thought that examining the mediating roles of psychological and cognitive flexibility, mindfulness and experiential avoidance (with six dimensions) in the relationship between childhood traumas and somatization in a current study will contribute to the literature.

In the next paragraph, firstly, the definition of Somatization will be discussed. After that, the prevalence and etiology of somatization will be detailed.

1.1.Somatization

Somatization means that a person has some physical symptoms which cannot be explained medically. Medical treatment is not enough at that point. Thus, somatization can be explained as a psychological phenomenon (APA, 2013a).

Johann Christian August Heinroth (1818) was the first psychotherapy professor and psychiatrist in the Western world. He first used psychosomatics in medical literature 80 years before Sigmund Freud. Heinroth emphasized the interdependence of body and mind. He stated that they are inseparable and communicate with each other. He has made significant contributions to the literature by combining clinical and somatic therapies.

" The human being is more than simply his or her body or soul: it is the full person."

this sentence reveals his perspective (Heinroth, 1818).

Somatization is a term used by analysts to explain the process through which emotional feelings manifest physically (Cengiz, 2015). Somatization is defined as

physical complaints and symptoms by the traditional psychoanalytic perspective. According to Lipowski, physical reasons cannot be explained and it has been explained as a medical care-seeking behavior disorder, (Lipowski, 1988). According to the traditional psychoanalytic view, somatic symptoms were a defense mechanism to prevent reaching unacceptable urges and desires to the realm of consciousness. Somatic symptoms are defensive tools that prevent unacceptable impulses and desires from the unconscious. Denial of disturbing emotions results in suppression or rationalization (Kellner, 1990). The denial, suppression, or rationalization of disturbing emotions results in somatization (Kellner, 1990).

Freud (1894) attributed the symptoms of hysteria to the repression of ideas or thoughts that were incompatible with one's moral and social sensibilities. To sustain repression, the libidinal energy associated with the irresistible idea had to be withdrawn; this energy was later transformed into a somatic expression that Freud called a conversion. (Taylor, 2003). Freud never used the term somatization. Besides, it became part of the glossary of psychoanalysis as conversion. Furthermore, some analysts have used somatization to refer to both organic and non-organic disorders and conversion symptoms and other medically unexplained somatic symptoms (Taylor, 2003). Somatization symptoms include lower-order physiological disruption, whereas conversion symptoms require higher-order neurocognitive functioning (Kirmayer and Santhanam, 2001). During the early 1920s, Stekel (1924) invented somatization, which he defined as converting emotional states into physical symptoms. Stekel described somatization as the same conversion mechanism presented by Breuer and Freud (1895) to explain the appearance of sensory or voluntary motor symptoms in hysterical patients (Taylor, 2003).

1.1.1 According to Diagnostic Criteria of Somatization

The category of Somatic disorders was first added in the Diagnostic and Statistical Manual of Mental Disorders (DSM)-III published in 1980. Somatization appeared in DSM-III-R, as a category of undifferentiated somatoform disorder and slight variations for other somatoform disorders (Kellner, 1990). In DSM-III classification of somatization disorder, it is stated that the absence of an organic disease or pathophysiological mechanism to explain the somatic symptoms is required in the diagnostic criteria (APA, 2013a; Dimsdale et al., 2013). There are some reconceptualizations and classifications from DSM-IV to DSM-V. In DSM-IV,

somatization disorder is included in somatoform disorders. In DSM IV, it is stated that it must start before the age of 30 for the diagnosis of somatization disorder. The person has many physical complaints, the symptoms cannot be explained medically, or the physical complaints are more than expected; it is a medical condition. However, this approach has been criticized due to insufficient discriminating diagnostic criteria. Afterwards, the category of Somatic symptoms and related disorders was created in DSM-V (APA, 2013a). Somatoform disorders have been renamed Somatic Symptom Disorder in DSM-V because of the difficulty of understanding Somatoform's term in DSM-IV. (Dimsdale et al., 2013). Currently, DSM-V consists of two main categories, namely (1) Somatic symptom disorder and (2) elated disorders (APA, 2013b), including Illness anxiety disorder, Conversion disorder (functional neurological symptom disorder), Psychological factors affecting other medical conditions, Factitious disorder, Other specified somatic symptom and related disorder and Unspecified somatic symptom. The diagnostic criteria for Somatic Symptom Disorder are given in Table 1.

Table 1. The Diagnostic Criteria for Somatic Symptom Disorder

The Diagnostic Criteria for Somatic Symptom Disorder
A. One or more somatic symptoms that are distressing or result in significant disruption of daily life.
B. Excessive thoughts, feelings, or behaviors related to the somatic symptoms or associated health concerns as manifested by at least one of the following: 1. Disproportionate and persistent thoughts about the seriousness of one's symptoms. 2. Persistently high level of anxiety about health or symptoms. 3. Excessive time and energy devoted to these symptoms or health concerns.
C. Although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (typically more than 6 months).

Table 1. The Diagnostic Criteria for Somatic Symptom Disorder (Continued)

Specify if:
Persistent: A persistent course is characterized by severe symptoms, marked impairment and long duration (more than 6 months).
Specify current severity:
Mild: Only one of the symptoms specified in Criterion B is fulfilled.
Moderate: Two or more of the symptoms specified in Criterion B are fulfilled.
Severe: Two or more of the symptoms specified in Criterion B are fulfilled, plus there are multiple somatic complaints (or one very severe somatic symptom).

As explained above, somatization has existed and continues to exist in different terms for years. In this respect, somatization is the subject of research and reports under different names in the literature. Somatic symptom disorder, which has been used with different terms throughout its development history, expresses the diagnoses related to the clinical sample. This thesis was not done with a clinical sample. Therefore, the term somatization will be used in this thesis.

1.1.2. Prevalence of Somatization

It has been reported that the prevalence of somatization differs from society to society and from west to east (Şahin et al., 2009). Mai and Merskey (1981) emphasized that its prevalence was high and that somatic symptoms accompany other mental disorders significantly in Eastern cultures. Somatization was thought to be psychopathology. It was specific to more traditional, pre-modern, agricultural societies (Özenli et al., 2009). The somatization rate was high in low socio-economic groups (Silber and Pao, 2003). According to the research on somatoform disorders; in the general population, the frequency of somatoform disorders ranged from 11% to 21% in young groups, 10% to 20% in the middle-aged group and 1.5 to 13% in the older age group (Van Driel et al., 2018). Somatoform disorders and medically unexplained symptoms were common in late adulthood, even though existing information only indicates that prevalence rates decline after 65 years of age (Hilderink et al., 2013). Besides, while some somatic symptoms such as fatigue and pain in older adults, these

symptoms were normalized as part of aging. As a result, the rate of people with undiagnosed somatic symptoms may be high (APA, 2013b).

The prevalence of somatization disorder was higher in a study of university students (7.7%) than in epidemiological studies of the general (1.5%) population. In addition, the obtained findings were essential for the development of somatization disorder in young adults indicates the presence of some risk factors in our country in Turkey (Özenli et al., 2009).

The earliest signs of somatization disorder usually develop around adolescence and the disorder begins at the age of 25(Özenli et al., 2009). Looking at the distribution by age; Children have a high rate of somatic symptoms. For example, 20 % to 55 % of children were seen to suffer from headaches, while persistent abdominal pain accounted for 5% of pediatric office visits. During adolescence, 10% of the youth reported frequent headaches, nausea, fatigue and chest pain (Silber and Pao, 2003). Somatization affects 5% to 7% of the adult population. Furthermore, females are more prone to suffer from somatic symptom disorder than males (APA, 2013b). According to many studies, somatization is the most common problem in women (Arroyo and Segrin, 2013; Barsky, Peekna and Borus, 2001; Wool and Barsky, 1994). A study supports these findings, indicating that 11 percent of girls and 4% of boys reported having somatic symptoms (12-16 years) (Silber and Pao, 2003).

Somatization can affect a person's ability in daily life, career and social interactions (Harris et al., 2009). The majority of patients with somatization had at least one psychiatric disorder, according to the same study. Patients with somatization were found significantly more functional impairment than those who did not have somatization (Harris et al., 2009).

In Turkey, in 2014-2015, a study with 500 volunteer high school teenagers were conducted. Results of the study showed that psychosomatic symptoms were found in girls more than boys. Indeed, teenagers who have chronic or mental problems showed more psychosomatic symptoms than those who do not have a chronic or mental problem. Lastly, the discussion part of the study highlighted that family dynamics and treating family dynamics are important for the psychosomatic issues; also, involvement of the family and family members in the psychotherapy is emphasized (Eray, Vural and Çetinkaya, 2015).

1.1.3. Etiology of Somatization

The etiology of somatization includes genetic factors, gain and social reinforcement, repression, learned responses and defense mechanisms (Kellner, 1990; Özenli et al., 2009). Although information about the genetics of somatoform disorders is limited, the relationship between genetic predisposition and the occurrence of somatization disorders has been supported by the research conducted with twins (Silber, 2011).

When it comes to the connection between somatization and family, it has been discovered that somatized children frequently have family members who suffer from identical physical problems. Furthermore, it has been discovered that children who have a family member with a persistent physical illness have more somatic symptoms than children who did not have a family member with a persistent physical illness. This result emphasizes the significance of psychosocial elements in the biological family (Silber and Pao, 2003).

Lackner, Gudleski and Blanchard's study concluded that that there is a strong correlation between perceived paternal hostility (rejection) and somatization symptoms. Indeed, paternal parenting behaviors were more predictive of somatization (Lackner, Gudleski and Blanchard, 2004). In another study, it can be considered that children who do not perceive control from their parents do not produce somatic symptoms. Because the overprotective/controlling nature of the parent against the child can be explained by the child's illness behaviors (Kaya and Gündüz, 2019)

Somatization, which is seen as one of the ways of expressing emotional distress, is associated with different perspectives in societies (Kirmayer, 1984). For example, bodily expression (somatization) of distress in traditional eastern society can be considered a more developed and adaptive mechanism. It provides harmony with the social environment and sociocultural support. However, recent studies claimed that somatization can occur anytime, anywhere (Kirmayer and Young, 1998; Şahin et al., 2009). Leff (1973) emphasized that in many societies, free expression of emotions or expression of emotions with symbolic body language is related with somatization (Özenli et al., 2009). Davis et al. researched cultural and gender differences in the importance and expression of emotions. While American women expressed comparatively much emotion, Chinese men expressed comparatively low emotion (Davis et al., 2012).

The main etiologic factor in DSM-V is early traumatic experiences (e.g., violence, abuse, deprivation), learning (e.g., attention gained from illness), genetic and biological vulnerability (e.g., increased sensitivity to pain) and cultural/social norms diminish and stigmatize psychological suffering compared to physical suffering. (APA, 2013b).

In the next paragraph, traumatic experiences, one of the most important risk factors, will be discussed under childhood trauma. After that, the prevalence, types and consequences of childhood traumas will be mentioned.

1.2.Childhood Traumas

Migration, witnessing violence, accidents, natural disasters, loss of a parent, separation from parents, divorce, physical, sexual and emotional abuse, physical and emotional neglect before the age of 18 are all forms of childhood traumas. (Herman, 2011) Child abuse, on the other hand, is described by the World Health Organization as "behaviors committed by an adult, whether intentionally or unintentionally, that negatively effect the child's health, physical development, or psychosocial development.". The result of the action on the child, not the adult's purpose, is what matters in this definition (WHO, 1999). Child neglect and abuse are defined as inappropriate actions or inaction by an adult who is a parent or caregiver that harms, restricts, or hinders a child's growth. The child is damaged in various ways due to this action or inaction (social, sexual, physical, developmental, or mental). (Oral et al., 2001; Taner and Gökler, 2004). Different cultures and societies have varied traditions and beliefs about what constitutes child abuse, making it difficult to define (Pelendecioğlu and Bulut, 2009). It has been seen, for example, that domestic violence against children is tolerated as a cultural norm in Turkey. This result could indicate that the abuse is not accidental, has a high likelihood of repetition and seriously affects the child's physical and mental health (Güler, et al., 2002; Oral et al., 2001).

Childhood traumas are classified as neglect and abuse. Neglect is described as physical and emotional neglect. Abuse is described as physical, sexual and emotional (Çelik and Hocaoğlu, 2018).

1.2.1. Prevalence and Frequencies of Childhood Traumas

Approximately up to 17, more than two-thirds of children are exposed to at least one traumatic experience (Copeland et al., 2007; Finkelhor et al., 2009). Children

exposed to trauma (75.4%) showed moderate or higher post-traumatic stress symptoms (Gonzalez et al., 2016). The most-reported traumatic events are loss, separation, grief and domestic violence (Briggs et al., 2013; Gonzalez et al., 2016).

For men, the prevalence of childhood maltreatment was over 40%, while for women, it is about 30% (Scher et al., 2004). In a study with 967 adult participants, it was found that a frequency of individual maltreatment forms ranged from 5% for sexual abuse to 18.9% for physical abuse, with physical and mental abuse (8.3%) and physical neglect (8.3%) being the most common types of maltreatment (Scher et al., 2004). In studies conducted in Turkey, the frequency of physical abuse in children was 30-35% and the rate of sexual abuse was 13% (Türkmen et al., 2017; Maniglio, 2014)

In another study conducted in Turkey, 42.5% of sexually abused children were between the ages of 13-15 (Türkmen et al., 2017). Vaginal penetration and touching the body for sexual purposes were the most commonly reported types of sexual abuse in females, accounting for 69.4 percent of all cases. Furthermore, it was shown that 25.9% of the victims had been sexually abused many times. All of the abusers were men, 54.1% were acquaintances and 14.1% were relatives. It was found that 25.9% of the cases were abused by more than one abuser (Türkmen et al., 2017).

Because emotional abuse and neglect are often undetected, the exact number of cases is unknown. Female-male ratios are equal (Kaplan, Pelcovitz and Labruna, 1999). Moreover, this type of abuse is most common to children between the ages of six and eight and remains at similar levels until adolescence (Kaplan et al., 1999).

Experiences with one and more types of traumas seem quite familiar for both men and women. Besides, women were more common than men to report having experienced several types of trauma (Scher et al., 2004). The most common types of maltreatment for both genders were found to be emotional abuse, physical abuse and physical neglect (Scher et al., 2004). In childhood and adolescence, 47.9% reported emotional abuse, 23.9% reported physical abuse, 28.2% reported sexual abuse, 45.3% reported emotional neglect and 46.2% reported any kind of physical neglect (Bohn et al., 2013).

1.2.2. Types of Childhood Traumas

Childhood traumas have been categorized as emotional abuse and neglect, physical abuse and neglect and sexual abuse. Those categories will be detailed.

1.2.2.1. Emotional Abuse

Emotional abuse describes as verbal abuse, non-physical severe punishments, or threats (Claussen and Crittenden, 1991). Cursing at the child, leaving it alone, deceiving, intimidating, threatening, humiliation not meeting their emotional needs are forms of emotional abuse (Acehan et al., 2013). Furthermore, actions such as overprotection, dependency, excessive authority, waiting for obligations beyond the age of the child, discrimination between siblings, harsh punishment incompatible with the child's behavior and violence to the face, even if it leaves no trace, are all included in this abuse category. The association between gender and racial background has been observed in the case of emotional violence. (Scher et al., 2004).

1.2.2.2. Emotional Neglect

Emotional neglect describes not providing enough emotional support, not showing caring or affection and not protecting the child from facing violence (Claussen and Crittenden, 1991). Additionally, not providing enough affection, compassion and emotional support and not protecting a child from being subjected to domestic abuse are examples of emotional neglect (Sedlak and Broadhurst, 1996; Kaplan et al., 1999; Taner and Gökler, 2004)). Emotional neglect is considerably associated with racial background and education (Scher et al., 2004)

The most prevalent type of maltreatment experienced by children and adolescents is emotional neglect. However, until recently, emotional maltreatment was not the field of discussion since it was always assumed to be less damaging than physical maltreatment. Assessing emotional evidence of trauma is more complex than assessing physical evidence of trauma (Kaplan et al., 1999). Emotional neglect and abuse were found in 90% of the physical neglect and abuse cases. Emotional neglect and abuse can also happen in the absence of physical and sexual abuse. Thus, it can be said that emotional neglect and abuse is the most common type of neglect and abuse experienced by children and adolescents (Claussen and Crittenden, 1991).

1.2.2.3. Physical Abuse

Physical abuse describes when a child is pushed or kicked, jolted, thrown with a hand or other weapon, or is in danger of being burned or suffocated by a parent or parent's successor (Sedlak and Broadhurst, 1996). Moreover, an older person's

physical attack on a child causes or threatens injury. (Kaplan et al., 1999; Taner and Gökler, 2004). Interpersonal, cognitive, mental and behavioral disorders, drug misuse and psychological conditions are linked to physical abuse (Taner and Gökler, 2004).

1.2.2.4. Physical Neglect

Physical neglect is described as harm or endangerment resulting from a lack of adequate diet, clothes, hygiene, or supervision (Kaplan et al., 1999; Taner and Gökler, 2004). Physical neglect may have severe and long-term effects on a child's physical, cognitive, mental and behavioral health. Child abuse often presents a significant threat to the development and well-being of children (Hildyard and Wolfe,2002; Taner and Gökler, 2004). It includes inadequate nutrition, clothes, grooming and supervision that cause damage or endangerment (Sedlak and Broadhurst, 1996).

For the physical abuse and neglect, the caregiver should be considered as child risk factors; features such as depression, substance use, poor self-image lack of social support are reported (Powers, Eckenrode and Jaklitsch, 1990). Besides, when compared to physically abused children, neglected children have more severe academic and cognitive impairments, more social disengagement, more restricted peer interactions and more severe withdrawal issues. (Hildyard and Wolfe, 2002).

1.2.2.5. Sexual Abuse

Sexual abuse is defined as the engagement of a child under the age of consent that would lead to the sexual satisfaction of an adult (Bernstein et al., 2003). Centers for Disease Control and Prevention describes sexual abuse as any completed or attempted sexual act, sexual contact, or sexual exploitation by the caregivers of the child (non-contact sexual interaction) (Öztürk, Tanriverdi and Sapmaz, 2017). Gender was found to be a significant factor in sexual abuse. Women were more common than men to say they had been sexually abused in the past (Scher et al., 2004). Girls are three times as likely as males to be sexually abused. Females with behavioral disorders were substantially more likely to report child sexual abuse history than men (Scher et al., 2004). There is a link between childhood abuse and psychopathology in childhood or adulthood. In the psychiatric evaluation of sexual abuse victims, it was determined that 84 (60%) had at least one psychiatric diagnosis due to abuse (Öztürk, Tanriverdi and Sapmaz, 2017). In a study, the rate of exposure to sexual abuse of children who applied to psychiatry outpatient clinics was 20.7% (Agyapong et al., 2017). Young

people with behavioral disorders are at risk of being (or have been) sexually abuse. However, this type of risk does not appear to be more particular or stronger for those individuals with other psychiatric disorders (Maniglio, 2014).

1.2.3. Consequences of Childhood Traumas

Adverse childhood experiences are linked to a number of health risk factors and they are stressful for children. Being exposed to adverse childhood experiences could risk mortality and morbidity for childhood and across the lifespan into adulthood (Felitti et al., 1998). According to findings, physical abuse and neglect have been linked to a wide range of interpersonal, cognitive, emotional, behavioral and drug abuse issues as well as psychological conditions (Kaplan et al., 1999). Maltreated children have also been shown to use more mental health services (Garland et al., 1996).

When compared to other types of abuse, child sexual abuse has a more traumatic and long-term impact on girls. In a research conducted by Türkmen et al., (2017), 42.5 % of sexually abused adolescents are aged 13 to 15. After abuse, 83.5 % were diagnosed with at least one mental disorder, with 37.6% suffering from severe stress disorder, 27.1 percent from depression, 22.4 percent from behavioral disorder and 12.9 percent suffering from post-traumatic stress disorder. As a result, it is an important life stressor for girls who have been exposed to sexual abuse and that girls who have been abused should be followed up in terms of psychological problems (Türkmen et al., 2017). Maltreated children show withdrawal, depression and aggression, which are apparent consequences of emotional damage. Indeed, some abused children become introverted, develop somatic symptoms, or have suicidal ideas. (Aber and Zigler, 1981).

According to research, an individual's lifetime number of different traumas predicts the severity of their symptoms (including such as post-traumatic stress, anxiety, anger and somatic complaints) (Cloitre et al., 2001). Multiple traumas can result multiple symptoms as the particular effects of distinct trauma exposures accumulate over time. Childhood rape and physical abuse were also discovered to be particular predictors of symptom complexity, although accumulated trauma tends to raise symptom complexity. (Briere, Kaltman and Green, 2008). A study (Felitti et al., 1998); aimed to examine childhood exposure to health risk behavior in adulthood and its relationship with the level of childhood exposure to emotional, physical, or sexual

abuse and domestic dysfunction in 7 different exposure categories. When the number of childhood exposures increased, the risk and prevalence of smoking, depressed mood, suicide attempts, severe obesity and physical inactivity increased. There was a significant link between childhood exposures and the number of health risk factors for leading causes of death in adults. Children who have had a lot of unpleasant childhood experiences are more likely to develop irritation, depression and anxiety, as mentioned previously before. When habits such as smoking, drinking, or using drugs have been proved to be effective coping methods, they are more likely to be employed in the long run. The findings suggest that adversity in childhood has a significant and accumulated effect on adult well-being (Felitti et al., 1998).

Childhood traumas can lead to somatization. In the next paragraph, this will be detailed with studies.

1.2.4. The Relationship Between Childhood Traumas and Somatization

In the early period of life, toxic stress can be caused by traumatic situations. One theory is that traumatic or unpleasant childhood events, such as sexual, physical, or emotional abuse, are linked to later pain and somatization (Anda et al., 2006; Kroska, Roche and O'Hara, 2018; Witthöft and Jasper, 2016). Accordingly, studies found that childhood trauma is related with somatization. These results could be a remarkable explanation of different kinds of mental health issues during a lifetime in adulthood (Ortiz and Sibinga, 2017).

Some research found that having somatic symptoms as a child or adolescent was linked to adulthood somatization. (Dhossche, et al.,2001; Kroska et al., 2018). Indeed, somatization in adults has been related to histories of interpersonal childhood trauma (sexual abuse, physical abuse, emotional abuse and neglect) (Waldinger et al., 2006). Furthermore, this can identify mechanisms that explain the relationship between childhood trauma and adulthood somatization (Kroska et al., 2018). It is remarkably showed the importance of identifying mechanisms between childhood traumas and somatization. Based on a study, there is a significant relationship between childhood emotional abuse and neglect and adult symptoms. That relation reveals the importance of the relationship between emotional abuse and neglect and adult emotional and somatic functioning. Emotional abuse and neglect are linked to somatization (Spertus et al., 2003). Survivors of child abuse and neglect are assumed to be vulnerable to issues with physiological functioning and competency later in life

because they were viciously attacked or had basic physical or emotional needs ignored by caregivers (Waldinger et al., 2006). In the study, hypochondriac adults remembered more childhood trauma before seventeen (but not more severe trauma or trauma at a younger age) than non-hypochondriac patients from the same general medical outpatient clinic reference. While controlling sociodemographic factors, hypochondriac patients reported parental upheaval, traumatic sexual experience and abuse history. These variations were statistically significant (Barsky et al., 1994).

Even though traumas harm the individual, such as somatization, not everyone with a traumatic experience develops a disorder. Thus, the literature indicates that different types of childhood traumas are linked to somatization in adulthood. From that point, it might be important to know different types of mediating factors such as mindfulness, psychological flexibility and experiential avoidance. Besides, Acceptance and Commitment Therapy (ACT) was effective in treating somatization (Kroska et al., 2018; Tavakoli et al., 2019). Concepts of ACT such as mindfulness, psychological flexibility, or experiential avoidance might play an important role in the relationship between childhood trauma and somatization. Therefore, in the following paragraphs, the terms mindfulness, psychological flexibility, experiential avoidance and their relationship to childhood traumas and somatization will be discussed separately.

1.3.Mindfulness

Mindfulness is a present-focused and nonjudgmental awareness practice with its roots in Buddhist practices (Kang and Whittingham, 2010). It refers to a mechanism by which events occur in the focus of attention on a moment-by-moment basis. Mindfulness is an acceptance of the moment without being influenced by the possible experiences and feelings planned, in the past or future (Germer, Siegel and Fulton, 2013). It is making awareness concentrate on that moment, the present time, without judging (Kabat-Zinn, 2005). This idea, which goes back around 2500 years, has aroused the interest of many researchers, especially in recent years. Mindfulness has been proposed for treating psychopathologies and as a result, a variety of intervention approaches have been developed.

Mindfulness is a much-debated quality of consciousness about well-being. More recently, a particular aspect of consciousness, namely mindfulness, has come to the fore in the psychology literature. Brown and Ryan (2003) describe consciousness

with attention and awareness. Awareness is the "catcher" of consciousness in the background that constantly observes the internal and external world. The person may be aware of stimuli even though they are not paying attention to them. As Westen (1999) explained, the practice of focusing conscious awareness on offering great sensitivity to a limited range of sensations are known as attention (Westen,1999). Thus, it is thought that through the development of two functions of consciousness, which includes awareness and attention, one can be mentioned with being mindful. Jon Kabat-Zinn argued that awareness includes the awareness that emerges from the moment and without judgment conscious attention. Conceptualizing awareness as a cognitive skill that can be learned has positive effects in therapeutic settings (Brown and Ryan, 2003).

One important step in the future regarding the concept of conscious awareness is that Dalai Lama pioneered the establishment of the Mind and Life Institute. This institution has played an important role in developing and disseminating conscious awareness in scientific terms (Moniz and Slutzky, 2015). As a turning point, When Dr. Jon Kabat-Zinn founded the Awareness-Based Stress Reduction Clinic in 1979, mindfulness started to become a popular concept in the west by crossing both eastern borders and religious teachings.

Looking at the context of clinical psychology and mindfulness; John Kabat-Zinn first created mindfulness as a therapeutic practice with mindfulness-based stress reduction (MBSR). Later continued to be important for other third-wave therapies: Mindfulness-Based Cognitive Therapy (MBCT), Dialectical Behavior Therapy (DBT) and ACT (Kostanski and Hassed, 2008).

1.3.1. Research About the Effects of Mindfulness

In Gallegos et al., (2015) study, there was a relationship between being an MBSR participant and an increase in awareness (Gallegos et al., 2015). As a result of the 8-weeks MBSR program conducted with women who have been exposed to different types of trauma such as physical or sexual abuse in childhood, the sudden loss of loved ones, or domestic violence. It was observed that depression, perceived stress, trauma symptoms, state anxiety and emotion regulation disorders decreased. Even in women who have been physically and sexually victimized; It has been observed that with mindfulness, they can improve their ability to successfully regulate emotions and alleviate trauma symptoms (Gallegos et al., 2015). In a study conducted

with 300 students between 5th grade and 8th grade, after the MBSR program, it was observed that there was a remarkable decrease in negative coping, negative affect, depression, somatization, rumination, self-hostility and post-traumatic symptom severity (Sibinga et al., 2016).

In 2018, in the study conducted with 194 participants, 124 (64%) women and 70 (36%) men; It was observed that the age of the participants increased, the interest in mindfulness increased. In terms of gender, it was found that the mindfulness level of women was higher than men. A negative relationship was observed between interest in mindfulness and perceived stress. It has been found that as mindfulness increases, the perceived stress and depression decrease (Arslan, 2018).

1.3.2. Mindfulness, Childhood Traumas and Somatization

On the other hand, mindfulness plays a role in reducing the effects of childhood traumas and somatization (Fjorback et al., 2013; Ortiz and Sibinga, 2017). In addition, mindfulness had mediating role between childhood trauma and somatization (Kroska et al., 2018).

In Kroska et al. (2018), childhood trauma was found significantly linked to mindfulness, namely that negatively. Mindfulness was found significantly negatively related to somatization (Kroska et al., 2018). In addition, it was observed that a significant direct effect of childhood trauma on somatization and the indirect effect of childhood trauma on somatization through mindfulness were significant (Kroska et al., 2018). Moreover, research suggested that high-quality and structured mindfulness training was shown to reduce the harmful effects of stress and trauma caused by adverse childhood exposures, enhancing short- and long-term outcomes and potentially minimizing poor adult health outcomes (Ortiz and Sibinga, 2017).

Mindfulness is related with various forms of psychological health, such as reduced emotional responsiveness, lower levels of psychological symptoms and somatization (Masuda and Tully, 2012In a study aimed to determine the effectiveness and usefulness of mindfulness therapy in somatization disorders and functional somatic syndromes such as fibromyalgia, irritable bowel syndrome and chronic fatigue syndrome, known as bodily distress syndrome (BDS). Results showed that for patients with multi-organ BDS, mindfulness therapy is feasible and acceptable (Fjorback et al., 2013). Mindfulness therapy, however, may be a potentially beneficial intervention in

BDS patients, given the faster progress following understanding (Fjorback et al., 2013).

1.4. Psychological Flexibility

Psychological flexibility is defined as being in touch with the present, being fully aware of feelings, sensations and thoughts, embracing them, including undesirable ones and acting within a pattern of behavior in the service of chosen values (Hayes, Strosahl and Wilson, 1999). In short, acting on long-term values, rather than the short-term impulses, thoughts and emotions often associated with experiential avoidance (Ramaci et al., 2019).

ACT (Luoma, Hayes and Walser, 2007), which is widespread today, aims to make the person try to live the moment instead of sticking to the past and the future, to be aware of and accept their feelings, thoughts and behaviors. In short ACT; Accept your thoughts and feelings and be present, defined as choose a value direction and take action. On this basis, psychological flexibility is the most important concept. Psychological flexibility is to be present and act value-oriented by approaching our experiences with attention and openness (Harris, 2009). In other words, being in the moment, open and able to do what is necessary is that the individual does not stay attached to the past and the future but touches the moment individual is in and performs behaviors in line with the values individual has determined (Luoma, Hayes and Walser, 2010).

ACT's psychological flexibility model was created in the hexagonal direction hexagon (Figure 1) includes acceptance, cognitive defusion, being present, self as context, defining valued directions and committed action (Harris, 2009; Luoma, Hayes and Walser, 2010). Acceptance involves opening ourselves and creating a space in our mind to the emotions, thoughts, feelings, impulses and memories. Acceptance is stopping fighting, running away, resisting emotions, memories, feelings and impulses and allowing them to be there as they are by giving them a space of movement (Harris, 2009; Luoma, Hayes and Walser, 2010). Cognitive defusion is about letting thoughts come and go rather than get caught up in thoughts and being battered by them. Instead of struggling with the thoughts that come to the individual's mind, it is suggested to watch them like a passing car (Harris, 2009). Being present means experiencing the here and now rather than getting lost in our thoughts and staying on autopilot, involving consciously handling and contacting any situation in the present

(Hayes,2004). Self as context contains two different structures: self as context and conceptualized self. The conceptualized self is a part of us habitual to all of us. It is the side of us where we make up our thoughts, beliefs, memories, judgments, fantasies and plans. However, for most people, the conceptualized self that follows the processes of thinking, feeling, sensing is our foreign and unconventional side. So it can be called a state of pure awareness. Another explanation for pure awareness is observing the self. Observing self is the part of us that is aware of something that what we are thinking, feeling, experiencing, or doing at any one time is known (Luoma et al., 2007). The realization of these self-parts despite all the people's inner life, painful experiences and anxieties increases their psychological flexibility and makes it easier for them to realize their values (Harris, 2009; Luoma, Hayes and Walser, 2010).

Values are defined as chosen life directions, that is, our compass in life determining the direction we want to go. How do you want your life to be? It is like the answer to the question of 'what do I live this life for?' (Harris, 2009). Committed action involves taking action in line with our values. It can be made possible by acting in line with values to make life more meaningful (Harris, 2009; Luoma, Hayes and Walser, 2010).

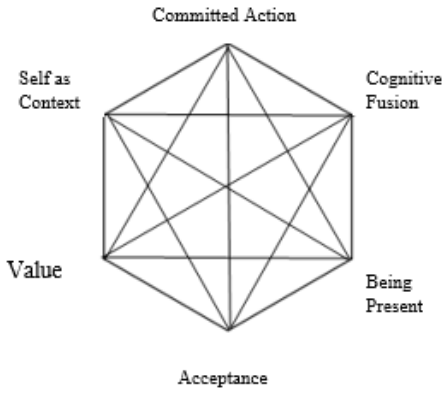


Figure 1. The hexagon of the psychological flexibility model of ACT

1.4.1. Researches about Psychological Flexibility

Psychological flexibility, which includes the ability to use coping mechanisms in various ways depending on the situation, is often advantageous. (Masuda and Tully, 2012).

According to the results of the study with a sample of 972 freshmen between the ages of 17 and 20 conducted by Levin et al., (2014); Psychological inflexibility was significantly higher in a range of current and lifetime history of depressive and anxiety and lifetime eating disorders than without any disorder, even after controlling for general psychological distress. The results draw attention to that psychological flexibility is a construct. It shows usefulness as a transdiagnostic conceptualization of mental health symptomatology (Levin et al., 2014).

According to Tavakoli et al., (2019), the effort of a person to monitor and minimize the experience of unwanted feelings, thoughts, or events has been emphasized as a significant factor to consider in understanding the anxious symptomatology of university students. Even when demographic variables were controlled, the presence of anxiety, generalized anxiety, stress and somatization was positively associated with high psychological flexibility. It has been suggested that teaching psychological flexibility strategies which are important tools for ACT, can help students respond better to psychologically disturbing conditions. (Tavakoli et al., 2019). Besides, more psychological inflexibility is associated with more somatic, depressive and anxiety symptoms (Masuda, Mandavia and Tully, 2014).

The findings show that psychological flexibility may be a promising factor to be considered among traumatized individuals (Bryan et al., 2015; Reddy et al., 2011). It emphasized that psychological flexibility is a potentially important therapeutic skill to reduce moments of intense distress and externalizing behavior among traumatized individuals (Dutra and Sadeh, 2018). In addition, in a study conducted with air force personnel, service members with greater psychological flexibility reported less post-traumatic stress and depression than subjects with less psychological flexibility (Bryan et al., 2015). Also, greater psychological flexibility has been associated with a reduced risk of suicide and significantly alleviated the effects of depression on suicidal ideation over time. The results show that psychological flexibility protects against emotional distress among service members and alleviates the effects of depression on suicide risk (Bryan, Ray-Sannerud and Heron, 2015). Psychological flexibility is a protective factor for people whom early life traumas have adversely impacted. It also emphasizes the importance of looking at the number of traumas and the impact of trauma. According to a study, early life trauma has been linked to depression and post-traumatic stress disorder (PTSD). There was a link between psychological flexibility

and less mental health issues (both depression and PTSD). To some extent, psychological flexibility mediated the link between the harmful impact of traumas and symptoms (Richardson and Jost, 2019).

Anxiety, depression, somatization and general psychological distress were all found to be negatively correlated with psychological flexibility. It highlights the importance of psychological flexibility in conceptualizing the onset and maintenance of anxiety, depression, somatization and general psychological distress (Masuda and Tully, 2012).

1.4.2. Psychological Flexibility, Childhood Traumas and Somatization

Psychological flexibility protects people from the negative effects of somatization symptoms on their life quality, demonstrating the importance of this individual variation variable for mental health and well-being. There was a significant relationship between somatization and physical, social and environmental life quality and illness anxiety, moderated by psychological flexibility. Individuals with somatization maintained a higher degree of physical and environmental quality of life when psychological flexibility was high than when psychological flexibility was low (Leonidou et al., 2019).

It was found that psychological flexibility has a buffering role in childhood trauma and somatizations (Leonidou et al., 2019; Richardson and Jost, 2019). The findings point to psychological flexibility's beneficial and buffering role, which is a coping approach that can be taught in the context of therapy to improve quality of life. In other words, it has been emphasized that reducing avoidant coping through therapy may be important in reducing the negative effects of somatization and illness anxiety (Leonidou et al., 2019). The relationship between the negative effects of early life trauma and symptoms of depression and PTSD was mediated by psychological flexibility. This conclusion suggested that psychological resilience may facilitate coping with the negative impact of early life trauma and may affect an individual's ability to overcome negative psychological consequences (Richardson and Jost, 2019). The study shows that mindfulness and psychological flexibility have a role in explaining the onset and maintenance of somatization (Masuda and Tully, 2012). Psychological flexibility and mindfulness were shown to be positively associated with each other and both factors were found to be adversely associated with somatization when evaluated separately. A study emphasizes the importance of psychological

flexibility and mindfulness in terms of the beginning and continuation of somatization (Masuda and Tully, 2012). In the study, which includes participants from various Asian nationality backgrounds, more psychological inflexibility was linked to more somatic, depressive and anxiety symptoms. In contrast, more mindfulness was linked to less somatic, depressive and anxiety issues. The results indicate that the degree to which one is unable to confront distressing internal and external interactions, as well as the degree to which one is mindful of the present-moment experience, are useful concepts to comprehend somatization, depression and anxiety in Asian American young adults (Masuda et al., 2014).

1.5. Experiential Avoidance

Experiential avoidance is an important concept in ACT (Hayes et al., 1996). Definition of experiential avoidance can conceptualize as the opposite of acceptance (Hayes et al.,1996). It means that experiential avoidance attempts to avoid, change or suppress unwanted emotions, thoughts, memories, or physical sensations. On the other hand, acceptance is the active and conscious acceptance of certain events triggered by our past experiences, without changing their frequency or form, unless they cause psychological damage (Luoma et al., 2007). Moreover, experiential avoidance functions to provide immediate relief from discomfort; using these strategies consistently increases the frequency of unwanted experiences and has long-term costs (Hayes et al., 1996).

Excessive focus on avoiding, suppressing and concealing one's emotions can mean moving away from certain things. The behaviors of getting away from and getting rid of unwanted emotions can cause a decrease in the individual's other emotions and even reduce the mental resources available to the person to enjoy the most basic pleasure situations (Hayes et al., 1996; Machell, Goodman and Kashdan, 2015). Cognitive strategies such as trying to suppress or control thoughts have been shown to paradoxically increase the formation of target thoughts (Gold and Wegner, 1995). Suppression of emotions has been linked to negative psychological and physical health consequences (Gross and John, 2003).

While the link between avoiding negative influences and psychopathology has been studied for a long time, it has only lately been reformulated as an experiential avoidance structure, which is gaining popularity in the empirical literature (Chawla and Ostafin, 2007).

Experiential avoidance is regarded as a pathological process that has been studied from a variety of perspectives. Experiential avoidance is a phenomenon in which a person has particular personal experiences (such as, thoughts, memories, bodily sensations, emotions and behavioral predispositions) and then takes steps to change the pattern or frequency of these events, as well as the situations in which they occur (Hayes et al., 1996). In short, experiential avoidance is trying to avoid or eliminate unwanted emotions, thoughts, or personal experiences, which opposes the concept of acceptance (Harris, 2009).

Gámez et al. (2011) first showed that experiential avoidance could be viewed as a multidimensional construct. Experiential avoidance has six different sub-dimensions; behavioral avoidance, distress aversion, procrastination, distraction and suppression, repression/denial and distress endurance. Besides individual variations in negative emotionality, the six sub-dimensions were linked to other systems in various ways. In the study in which the scale evaluating six sub-dimensions of experiential avoidance in 2014 was used; They emphasized the importance of not considering psychological flexibility in one dimension (Ciarrochi et al.2014). The study shows that people can have different experiential avoidance profiles and this can have important implications for practice (Ciarrochi et al., 2014; Ekşi, 2019).

1.5.1. Researches about Experiential Avoidance

It has been suggesting that reluctance to stay in contact with adverse events or chronic attempts to change the context of the events contributes to psychopathology rather than the content of these events. Therefore, although experiential avoidance seems to be an effective short-term strategy for managing emotional processes, is the energy expended on it and its long-term considered maladaptive? dysfunctional? (Forsyth, Eifert and Barrios, 2006). According to a study conducted by Machell et al. (2015) with 89 participants to investigate the effect of avoidance of experiential anxiety on daily well-being and made a daily evaluation of experiential avoidance. For two weeks, data were obtained (with the experiential avoidance scale) for "daily reports on the agenda, experiential avoidance, enjoyment of daily events and positive and negative affect." The findings emphasized that experiential avoidance is harmful to daily well-being and may impact how much people's well-being varies from day by day. Some experiential avoidance impacts may be related to the quantity of negative affect one has on a given day (Machell et al., 2015)

Additionally, it was discovered that experiential avoidance mediates the association between emotion management approaches and positive everyday outcomes (Kashdan et al.,2006).

A study was conducted to evaluate the harmful effects of experiencing avoidance as a primary mechanism in developing and maintaining psychological distress and interruption of pleasant, engaged and spontaneous activities. It was particularly interesting to see if experiential avoidance could account for the effects of coping and emotion regulation strategies on anxiety-related pathologies. These findings provide some of the first empirical evidence supporting the role of experiential avoidance as a barrier to obtaining purpose and peace from life and responding in more desirable ways in real-world situations. Future implications for research that the assessment of experiential avoidance as a generalized diathesis and toxic process may be useful to improve understanding of the etiology, phenomenology and anxiety states of general human suffering (Kashdan et al., 2006).

In the study conducted by Palm and Follette (2011), experiential avoidance was strongly related to depression and PTSD severity. Experiential avoidance was also suggested as a possible mediator in the relationship between cognitive flexibility and PTSD severity. Furthermore, the association between cognitive flexibility and depression seemed to be mediated by experiential avoidance (Palm and Follette, 2011).

A total of 333 undergraduate students participated in the study, which aimed to investigate the mediating impact of social media disorder on the relationship between experiential avoidance and negative psychological symptoms (depression, anxiety and stress); Distress aversion, repression/denial and behavioral avoidance were found to partly mediate the effects of social media dysfunction on the negative psychological symptoms of depression, anxiety and stress (Ekşi, 2019).

1.5.2. Experiential Avoidance, Childhood Traumas and Somatization

The study emphasized the significant relationship between childhood trauma and experiential avoidance (Kroska et al., 2018). While experiential avoidance was relevant with somatization, there was a significant direct effect of childhood trauma on somatization. The indirect effect of childhood trauma on somatization through experiential avoidance was significant and approximately explained (Kroska et al., 2018).

Experiential avoidance is one of the strategies used to reduce stress, but it has the paradoxical effect of increasing unwanted emotional experiences (Hayes, et al.,1996). Somatic sensations are one of the paradoxical effects of suppression. In the study of Cioffi and Holloway, 1993, participants were exposed to a painful stimulus, namely a cold press pain induction. During the task, participants were asked to think of their home (distraction), to concentrate on the painful feelings (monitoring), or to suppress thoughts about the pain (suppress). After two minutes of pressure, pain ratings revealed that monitoring provided the fastest relief while suppression provided the slowest. Those in the suppression condition later rated the pain as more unpleasant than those in the concentrating condition. Recovery on discomfort ratings after the painful stimulation was withheld was slow (Cioffi and Holloway, 1993).

According to the results of Batten et al.'s (2002) study to investigate variables related to the long-term effects of childhood sexual abuse in women with and without childhood sexual abuse. Findings from general psychological distress and experiential avoidance experiences revealed that survivors of childhood sexual abuse reported more experiential avoidance than those who did not sexually abuse in childhood. Experiential avoidance has also been linked to greater psychological distress in women who have survived child sexual abuse, according to studies (Batten, Follette and Aban, 2002). (Batten, Follette and Aban, 2002). Research results tried to use experiential avoidance as a mediation between sexual victimization and adverse adult outcomes. Thus, victimization had statistically significant but modest effects on depressive and anxiety symptoms and these were compensated by experiential avoidance. Child sexual abuse is not linked to experiential avoidance or harmful consequences, but sexual victimization of adolescents has increased their vulnerability. Sexual victimization in adolescence has been linked to increased experiential avoidance associated with a more negative outcome (Polusny et al., 2004).

In sum, mindfulness, psychological flexibility and experiential avoidance show an essential relationship with childhood trauma and somatization.

In the next paragraph, the concept of cognitive flexibility will be explained, since it is a less common term in the literature. Its definition, relationship with childhood trauma and somatization will be discussed in the light of literature and studies in this field are presented.

1.6.Cognitive Flexibility

Executive function is a collection of skills that allows a person to set goals, keep them inactive memory, track success and manage distractions to achieve those goals (Stuss and Knight, 2013; Diamond, 2002). Inhibitory control ability, cognitive flexibility and working memory are the three elements of executive function (Miyake et al., 2000).

Martin and Rubin (1995) explained cognitive flexibility as the individual is aware that there are suitable options and accessible alternatives for any given situation. Also, an individual is willing to be flexible and feel competent to adapt to the situation and be flexible. According to Dennis and Vander Wal (2010), cognitive flexibility is the ability of an individual to change their cognition according to changing environmental conditions. In this direction, cognitive flexibility includes three main areas. These are; (1) the tendency to perceive difficult situations as controllable, (2) the ability to perceive possible alternatives to situations that arise in life and human behavior, (3) the ability to produce many solutions to solve difficult situations (Dennis and Vander Wal, 2010).

The capacity of humans to adjust their cognitive processing mechanisms to new and unexpected situations in the world is known as cognitive flexibility. Cognitive flexibility includes some main features. It is a skill that can be learned by experience or through a learning process. Adapting cognitive processing techniques (e.g., a set of operations that look for solutions in a problem space) is one aspect of cognitive flexibility. As a result, rather than discrete answers, cognitive flexibility refers to adjustments in complicated activities. Finally, after an individual has been performing a task for some time, they can adjust to new and unexpected environmental changes (Payne et al. 1993). According to cognitive flexibility theory, people who represent a task from multiple perspectives can more easily perceive situational changes and hence are highly cognitively flexible (Spiro, 1998). As a result, these individuals can rapidly reconstruct their knowledge, allowing them to adjust their actions to rapidly changing situational demands (Spiro and Jehng, 1990). The term "cognitive flexibility" refers to how people communicate their understanding of a task and various interaction techniques. Human behavior is influenced by a person's knowledge of environmental parameter values. This information has been obtained by learning from previous

similar situations. However, this information needs to be changed when the situation changes to reinterpret potential new mission requirements.

On the one hand, cognitive flexibility is highly dependent on attention processes. When a situation changes or a non-routine intervention is required, it requires a high level of attention control to evaluate the new situation and plan the action to be taken. To be cognitively flexible, a person needs to perceive environmental conditions that may interfere with the task at hand. In addition, there is a need to invest resources to cancel an automatic response and therefore plan a new set of corresponding actions that effectively meet new task demands (Canas, Fajardo and Salmeron, 2006).

According to Martin and Anderson (1998), cognitive flexibility includes three basic elements. These individuals can be aware of alternative ways and options, be flexible and adapt to situations and be self-efficacious or flexible. Many factors are linked to cognitive flexibility. Cognitively flexible individuals are communication competent, assertive, responsible, able to make sense of their experiences and accommodate various circumstances (Martin and Anderson, 1998).

1.6.1. Researches about Cognitive Flexibility

Cognitive flexibility has been linked to improved adaptive functioning, mental and physical well-being, life satisfaction and positive affect, as well as lower levels of negative emotions, anxiety and somatization (Masuda and Tully, 2012).

A study conducted by Bilgin (2009) in Turkey consists of 155 students between 17-19 years of age. It shows that the variables that significantly affect cognitive flexibility are social competence expectation, authoritarian parental attitude and problem-solving skills. It can be stated that adolescents with high social competency expectations and high problem-solving skills are more cognitively flexible than other adolescents. In addition, it was found that authoritarian parental attitude was an obstacle to cognitive flexibility (Bilgin, 2009).

In a study investigating the relationship between the cognitive flexibility of university students and their happiness levels; A statistically significant and positive relationship was found between university students' cognitive flexibility and happiness levels (Asıcı and İkiz, 2015). It was found that the student's cognitive flexibility and happiness levels did not differ according to age, the field of education and the state of

emotional relationship. The cognitive flexibility mean scores of male university students were higher than the mean scores of female university students (Asıcı and İkiz, 2015). In a research conducted with 549 university students; It was found that the cognitive flexibility levels of university students did not differ significantly according to gender (Doğan Laçın and Yalçin, 2019). Self-confident approach, helpless approach, seeking social support and submissive approach, which are sub-dimensions of self-efficacy and coping styles, were found to significantly predict cognitive flexibility (Doğan Laçın and Yalçin, 2019).

Cognitive flexibility was strongly related to depression and PTSD severity (Palm and Follette, 2011). Besides, People with PTSD have less cognitive flexibility than those exposed to trauma but have not developed post-traumatic stress disorder (Daneshvar, Basharpoor and Shafiei, 2020).

1.6.2. Cognitive Flexibility, Childhood Traumas and Somatization

According to the findings, child abuse might impair the expected development of competence in some executive tasks. According to reports, this may affect the nature and persistence of some types of psychopathology linked to abuse and lacking self-control, according to reports (Mezzacappa, Kindlon and Earls, 2001).

Several correlated and potentially traumatic experiences, such as emotional neglect and abuse, physical neglect and abuse, sexual abuse and drug abuse, peer violence, parental divorce, or death, are examples of adverse childhood experiences. These negative stress factors, which occurred before the age of 18, may affect the normal development of executive functions in some way (Anda et al., 2006; Ji and Wang, 2018). Other factors, such as psychological growth, social support, mental flexibility, independent adjustment and changes in the environment, influence the impact of adverse life events on the executive functions of individuals. As a result, the findings of this study indicate that life events are more likely than hardship childhood experiences to have a negative effect on executive performance (Ji and Wang, 2018)

One study showed associations between childhood maltreatment and diminished cognitive flexibility in adolescents (Mothes et al., 2015). In addition, children exposed to early life stress showed impairment in the cognitive flexibility process (Harms et al.,2018). The analysis was performed to reveal the relationship between cognitive flexibility level and somatization tendency. It was found that there

was a negative statistically significant and weak relationship in the negative direction between cognitive flexibility level and somatization tendency (Doğan Yatar, 2020). As a result, stressful childhood experiences such as physical, mental and sexual abuse have been shown to affect executive functions in early adulthood (Tashjian et al., 2016).

Moreover, abusing in childhood was associated with diminished executive functions (Porter, Lawson and Bigler, 2005). The effects of trauma on basic executive functions were demonstrated in the conclusion of a study and executive function issues were reported as a consequence of children subject to maltreatment becoming more vulnerable to academic and behavioral challenges than their peers (DePrince et al., 2009).

In another study, the results show that both physical abuse and physical neglect are associated with decreased cognitive flexibility in adolescents (Spann et al., 2012). Indeed, results confirmed reports of executive dysfunction associated with physical abuse and neglect in prepubertal children; in addition, significant associations with perseverative errors were observed for physical abuse and physical neglect in the Childhood Trauma Questionnaire (CTQ) subscales in the same study (Spann et al., 2012)

1.2. Aim of the Present Study

The present study aims to investigate mediating roles of mindfulness, psychological flexibility, experiential avoidance and cognitive flexibility in the association between childhood trauma and somatization. There are many researches about the relationship between somatization, childhood trauma, mindfulness, psychological flexibility, experiential avoidance and cognitive flexibility in literature. Somatization, childhood traumas, psychological and cognitive flexibility are important terms studied and researched in literature. Rather, somatization is seen as a psychological issue (APA, 2013) in which medical treatment is not enough. Adverse events and traumas in early life can cause different kinds of mental health issues in adulthood (Ortiz and Sibinga, 2017). Accordingly, studies found that childhood trauma is associated with somatization (Anda et al., 2006; Kroska, Roche and O'Hara, 2018; Witthöft and Jasper, 2016).

On the other hand, mindfulness can help to reduce the impact of childhood traumas and somatization. (Fjorback et al., 2013). Psychological flexibility has also been shown to act as a barrier to childhood trauma and somatizations. (Richardson and Jost, 2019). In addition, the study of Kroska et al. (2018) found a significant relationship between higher somatization and increased experiential avoidance. Another research found relationships between childhood maltreatment and decreased cognitive flexibility in teenagers. (Mothes et al., 2015). Childhood traumas, mindfulness-based and cognitive frameworks have all been studied separately concerning somatization, but no study has combined all of these critical elements in one study.

Thus, investigating the roles of psychological and cognitive flexibility in the relationship between childhood traumas and somatization with different dimensions such as experiential avoidance and mindfulness will be an achievement for the clinical practice because knowing the relationship between childhood traumas, somatization, psychological and cognitive flexibility can be crucial in treatment and in trying to understand the client's experiences while providing a perspective on the possible comorbidities. The study results will contribute to different aspects of childhood trauma and somatizations and better understand this relationship. From this view of point some additional analysis such as t- Tests in order to investigate gender difference will be conducted and also regression analysis will be conducted investigate the which childhood trauma types predict somatization and lastly Pearson correlation analysis will be conducted to examine the relationship between the all variables, Furthermore, mediation analysis to will be conducted to examine the mediating roles of mindfulness, psychological flexibility, experiential avoidance with sub dimension; behavioral avoidance, distress aversion, procrastination, distraction and suppression, repression and denial and distress endurance between childhood trauma and somatization will run. On the other hand, better knowledge about the constructs mentioned above will have an important clue for the treatment of somatization/somatic symptom disorder?

Based on the literature, the following research questions and hypotheses were formulated.

1.7. Research Questions

1.Is there any gender difference accordingly somatization, childhood traumas, mindfulness, psychological and cognitive flexibility and experiential avoidance levels?

2. Which childhood trauma subtypes predict somatization?

1.8. Hypothesis

It is expected that:

H1: Mindfulness mediates the association between childhood traumas and somatization.

H2: Psychological flexibility mediates the association between childhood traumas and somatization.

H3: Cognitive flexibility mediates the association between childhood traumas and somatization.

H4: The subscales behavioral avoidance, distress aversion, procrastination, distraction and suppression, repression and denial and distress endurance of the experiential avoidance scale mediate the association between childhood traumas and somatization

CHAPTER 2: METHOD

2.1. Participants

The sample of the study consists of 380 participants, 279 women and 101 men, in the age group 18 and over in Turkey as convenience sample. The average age of participants was found to be 30.63 (*SD* = 11.62), 31.14 for females and 29.23 for males. The research was voluntary. The participants of the study were 395 and the valid sample number of 380 participants were obtained by excluding the answers of the participants who did not complete the scales and excluding the extreme values. Participant characteristics are shown in Table 1.

2.2. Instruments

In the study, to gain information about participants, a sociodemographic information form was developed by the researcher. Childhood Trauma Questionnaire used to measure traumatic experiences in childhood; Multidimensional Experiential Avoidance Questionnaire-30 used to investigate experiential avoidance; Psychological Flexibility Scale used to measure psychological flexibility; Mindful Attention Awareness Scale used to measure mindfulness; to investigate somatization, the somatization subscale of the Symptom Check List used; Cognitive Flexibility Scale used to measure cognitive flexibility. Furthermore, at the beginning of the study, Informed Consent Form was given to the participants. The data collection tools used in the study are discussed in detail in the following sections.

2.2.1. Sociodemographic Form

A Personal information form was developed by the researcher in order to obtain sociodemographic information of the participants. The form is included questions about gender, age, education, income level, marital status, having children, regular usage of medicine, having physical / chronic health issue and having psychological help before (APPENDIX C).

2.2.2. Somatization Scale of the Symptom Check List (SCL)

The Somatic Symptom Scale used in this study was taken from the SCL (Symptom Checklist-90) and was developed by Derogatis in 1977. It is a screening material for psychiatric symptoms and for the negative stress response experienced by the individual. The scale was revised in 1994 by Derogatis. The revised form of scale includes 90 items and 9 subscales; somatization, anxiety, obsession, depression,

interpersonal sensitivity, hostility, phobic anxiety, paranoid ideation and psychoticism. There are 12 items related to somatization, which is one of these subscales. All items are answered according to the options of 'low-moderate-fairly high-advanced' with 5-point Likert and it is scored by giving points as 0 (low) to 4 (advanced). Higher scores means higher somatization discomfort level. The alpha internal consistency reliability coefficient were between .77 and .90 in original study (Derogatis, 1977) Test-retest reliability for the whole scale was found between .78 and .90 for subscales in one-week intervals (Dağ, 1991).

The scale was adapted to Turkish culture by Dağ (1991). It provided the same factor structure for the culture. The statements in the scale are self-reports of the individuals' situation in the last 15 days. Increasing mean scores indicate an increase in distress with symptoms (Dağ, 1991). The scale was firstly adapted to Turkish in 1991 by Dağ finding an alpha internal consistency reliability coefficient of .97. in original study.

In Europe, lot of studies carried out an updated version of the scale. Since SCL-90 is also a frequently used scale in Turkey, Koğar (2019) carried an update with the scale for the purpose of proving the validity and reliability. The factor structure of the original SCL-90 was analyzed with using Mokken scaling analysis on Turkish sample. Items of scale decreased to 79 items and nine dimensions of the Symptom Checklist were provided; it was concluded that it has high validity and reliability with an alpha internal consistency reliability coefficient of .87 for somatization Cronbach α values for the whole scale were calculated between .72 and .89 (Koğar, 2019). This version was used in present study.

In the present study, the alpha internal consistency reliability coefficient was .87

(APPENDIX D).

2.2.3. Childhood Trauma Questionnaire (CTQ)

Childhood Trauma Questionnaire was developed by Bernstein et al in 1994. The questionnaire consists of 28 items, three of them which measure the minimization of trauma because these three items only measure denial of trauma and do not affect the total score. The scale evaluates childhood trauma and has five subscales: sexual, physical, emotional abuse, emotional and physical neglect. The sum of the five sub-scores gives the CTQ total score. Scores of the subscales range between 5 and 25 and

total score between 25 and 125. Items 2,5,7,13,19,26,28 are reversed items. Responses in the 5-point Likert-type CTQ are scored between 1 and 5 (never=1, rarely=2, sometimes=3, often=4, very often=5). Participants are asked to answer by thinking about items that may have happened to them before the age of 20. The alpha internal consistency reliability coefficients were ranged between .79 and .94 in original study (reference). Test-retest reliability for the whole scale were ranged between .80 and .88 in 2 to 6 month intervals.

In 2012, Şar, Öztürk and Ikikardeş adapted Turkish version of questionnaire and its reliability and validity were accepted (Şar, Öztürk and Ikikardeş, 2012). The alpha internal consistency reliability coefficients was .90 in Turkish version. Test-retest reliability for the whole scale was .90 in 2 weeks interval.

In the present study; The alpha internal consistency reliability coefficient was.86 in total CTQ, for the subscales; alpha internal consistency reliability coefficients were .81 in emotional abuse, .70 in physical abuse, .46 in physical neglect, .88 in emotional neglect and .88 in sexual abuse in present study (APPENDIX E).

2.2.4. Mindful Attention Awareness Scale (MAAS)

Mindful Attention Awareness Scale was developed by Brown and Ryan in 2003. The scale includes 15 items which are rated with six- point Likert scale (1: Strongly Disagree; 6: Strongly Agree). Scores range from 15 to 90 with higher scores indicating higher mindfulness. The alpha internal consistency reliability coefficients were .82 for students sample and .87 for adult sample. Test-retest reliability for the whole scale was .81 in 4 weeks interval. (Brown and Ryan,2003).

The scale was adapted to Turkish study is carried by Catak (Catak, 2012). The overall Cronbach's alpha coefficient was 0.85. The alpha internal consistency reliability coefficients were between .84 and .89 in Turkish version.

In the present study, the alpha internal consistency reliability coefficient was.87 (APPENDIX F).

2.2.5. Psychological Flexibility Scale (PFS)

Psychological Flexibility Scale developed by Francis, Dawson and Golijani-Moghaddam (2016). Trial form of the original scale developed for adult individuals 37 item. It consists of items and is made with a 7-point Likert type evaluation. The

final version of the scale consists of 23 items. The original scale has three sub-dimensions: openness to experience (10 items), behavioral awareness (5 items) and valued action (8 items). High scores obtained from each subscale in the evaluation of scale items indicate that individuals are psychologically flexible. (Francis, Dawson and Golijani-Moghaddam, 2016) The Cronbach α value for the whole scale was calculated as .91 in original one.

The Scale was adapted to Turkish by Karakuş and Akbay (2020). According to the result of the factor analysis made with the data obtained from adaptation to Turkish study, the scale consists of 28 items and five factors. The items of the adapted scale were renumbered with the final version. Values and behaviors, getting in contact with the present moment, acceptance, self as context and cognitive defusion. 2, 3, 5, 6, 8, 18, 20, 22, 23, 24 and 25 are reversed items. The lowest possible score is 28 and the highest score is 196. High scores obtained from each subscale in the evaluation of scale items reflect high psychological flexibility (Karakuş and Akbay, 2020). The Cronbach α value for the whole scale was calculated as .79 in adapted one.

In the present study, the alpha internal consistency reliability coefficients was .83 (APPENDIX G).

2.2.6. Multidimensional Experiential Avoidance Questionnaire-30 (MEAQ)

It was designed as a scale that addresses different behavioral reflections of experiential avoidance separately. Due to the high number of items, it was converted into a short 30-item with 7-point Likert (1: Strongly Disagree; 7: Strongly Agree) form by Sahdra et al. (2016). The scale has six subscales: Behavioral avoidance (I won't do something if I think it will make me uncomfortable), distress aversion (If I could magically remove all of my painful memories, I would), procrastination (I tend to put off unpleasant things that need to get done), distraction and suppression (When negative thoughts come up, I try to fill my head with something else), repression / denial (Others have told me that I suppress my feelings) and distress endurance (Even when I feel uncomfortable, I don't give up working toward things I value). The higher scores indicate the higher level of the respective avoidance type. The alpha internal consistency reliability coefficients were between .78 and .80 in original one.

The scale was adapted to the Turkish by Ekşi, Kaya and Kuşcu in 2018. In the Turkish sample, the scale was adapted as 7-point Likert (1: Strongly Disagree; 7:

Strongly Agree). The scale only gives points based on the subscales, thus scale does not give total score. Only item 15 is reverse scored. The alpha internal consistency reliability coefficients were .79 in behavioral avoidance, .76 in distress aversion, .78 in procrastination, .87 in distraction and suppression, .81 in repression / denial and .87 in distress endurance (Ekşi, Kaya and Kuşcu, 2018).

In the present study, the alpha internal consistency reliability coefficients were .82 in behavioral avoidance, .82 in distress aversion, .82 in procrastination, .93 in distraction and suppression, .82 in repression / denial and .87 in distress endurance (APPENDIX H).

2.2.7. Cognitive Flexibility Scale (CFS)

The Cognitive Flexibility Scale , developed by Martin and Rubin (1995), consists of 12 items with 6-Likert type (1: Strongly Disagree; 6: Strongly Agree). The scores that can be obtained from the measuring instrument in which items 2, 3, 6 and 10 are reverse scored vary between 12 and 72. High scores shows that the level of cognitive flexibility is also high. The alpha internal consistency reliability coefficient was .80. Test-retest reliability for the scale was .83.

The scale adapted to Turkish by Çelikkaleli in 2014.(Çelikkaleli, 2014). The alpha internal consistency reliability coefficient was .74. Test-retest reliability for the scale was .98.

In the present study, the alpha internal consistency reliability coefficient was .81 (APPENDIX I).

2.3. Procedure

Firstly, an ethical approval was obtained from the Ethic Committee of IEU. All measures were conducted online via Google Forms. It was aimed to reach participants with convenience sampling from Turkey. Thus, participants were reached by email group and online announcement in social media such as Instagram, Facebook and mail groups. People aging over eighteen years took part in the study. At the beginning, an informed consent was given to the participants with information about the study. Participants also reached the information that the participation was based on voluntary and that they can end the study whenever they want. After signing the informant consent, participants filled in the questionnaires in the following order; Sociodemographic Information Form (APPENDIX C), Somatization Subscale of the

Symptom Check List (APPENDIX D), Childhood Trauma Questionnaire (APPENDIX E), Mindful Attention Awareness Scale (APPENDIX F), Psychological Flexibility Scale (APPENDIX G), Multidimensional Experiential Avoidance Questionnaire-30 (APPENDIX H) and The Cognitive Flexibility Scale (APPENDIX I) Ps.

2.4. Statistical Analysis

SPSS 20.0 program was used to analyze the data. Missing values and outliers were excluded. Normality values of all sales were checked. Furthermore, according to the Tabachnick and Fidell (2007) the skewness and kurtosis values of scales were found in the range between +1.5, -1.5 and the data were normally distributed. Cronbach alpha reliability was checked for all scales and except physical neglect subscale of childhood trauma scale, all scales reliabilities were found appropriate values accordingly original studies. Thus, physical neglect was not included in any analysis. In the comparison of data, independent sample t-test analysis was used to compare the two groups by gender. Pearson correlation analysis was used to examine the relationship between the variables. The predictor relationship of the variables on each other was examined by regression analysis. Additionally, mediation analysis was performed with Hayes Process Macro v3.4.

CHAPTER 3: RESULTS

3.1. Descriptive Statistics

3.1.1. Results on Frequency of Demographic Characteristics of Participants

Three hundred eighty people participated in this study. Participants' ages range from 18 to 76 and the average age was 30.63 (*SD* = 11.62). 279 (73.4%) of the participants were female and 101 (26.6%) are male. Demographic characteristics of participants; age, education level, relationship status, having children, having relationship, having physical health problem, getting any psychological help and medication use were gave detailly in Table 2.

Table 2. Frequency of Demographic Characteristics of Participants

		***N* (%)**
Gender	Female	279 (73.4)
	Male	101 (26.6)
Education Level	Elementary School	4(1.1)
	Middle School	12(3.2)
	High School	104(27.4)
	Associate degree	21 (5.5)
	Bachelor’s degree	202(53.2)
	Master’s degree	33(8.7)
	Doctoral Degree	4(1.1)
Relationship Status	Single	261(68.7)
	Marriage	90(23.7)
	Divorced	22(5.8)
	Widow	7(1.8)
Having Children	Yes	99(26.1)
	No	281(73.9)

Table 2. Frequency of Demographic Characteristics of Participants (Continued)

		N (%)
Having Relationship	Yes	186(48.9)
	No	194(51.1)
Physical Health Problem	Yes	67(17.6)
	No	313(82.4)
Getting Any Psychological Help	Yes	152(40)
	No	228(60)
Medication Use	Yes	101(26.6)
	No	279(73.4)
Income Level	Very Low	17 (4.5)
	Low	39 (10.3)
	Middle	221 (58.2)
	Good	93 (24.5)
	Very Good	10(2.6)

3.1.2. Gender Differences for Somatization, Childhood Traumas, Mindfulness, Psychological Flexibility, Cognitive Flexibility and Experiential Avoidance Scales

An independent samples t-test was conducted in order to investigate whether somatization, childhood traumas, mindfulness, psychological flexibility, cognitive flexibility and experiential avoidance were significantly different in gender. When the findings of the analysis conducted to examine the distribution of gender according to the scales are examined; It was observed that female participants (M = 1.15, SE = .048) experienced more somatization symptoms than male participants (M = .83, SE = .074), t (189.910) = 3.562, p <0.05. It was observed that male participants (M = 16.60, SE = .78) experienced more repression denial than female participants (M = 14.25, SE =.43), t (378) = -2.771, p <0.05. It was observed that male (M = 25.74, SE =.41), participants experienced more distress endurance than female (M = 27.62, SE =.60), participants, t (378) = -2.445, p <0.05. Besides, gender difference did not observe for the childhood traumas t (378) = 512, p >.05, mindfulness t (378) = -.182, p >.05, psychological flexibility t (378) = 1.498, p >.05 , cognitive flexibility t (378) = -1.093, p >.05 ,

behavioral avoidance *t* (378) = 1.332, *p* >.05, distress aversion, *t* (378) = -1.206, *p* >.05 , procrastination *t* (378) = 301, *p* >.05 and distraction suppression *t* (378) = .072, *p* >.05 (*Table 4*).

Table 4. T-Test Values For The Gender According To The Scales

	Gender	***N***	***M***	***SD***	***T***	***df***	***p***
Somatization Scale	Female	279	1.15	.80	3.562	189.910	.000*
	Male	101	.83	.74			
Childhood	Female	279	45.51	8.73	.512	378	.609
Trauma	Male	101	45.00	8.29			
Questionnaire							
Mindfulness	Female	279	61.32	14.28	.-182	378	.856
Awareness Scale	Male	101	61.62	14.21			
Psychological	Female	279	136.22	19.90	1.498	378	.135
Flexibility	Male	101	132.67	21.56			
Cognitive	Female	279	55.23	8.76	-1.093	378	.275
Flexibility Scale	Male	101	56.36	9.21			
Behavioral	Female	279	26.57	6.34	1.332	378	.184
Avoidance	Male	101	25.59	6.22			
Distress Aversion	Female	279	20.82	7.75	-1.206	378	.228
	Male	101	21.91	7.88			
Procrastination	Female	279	20.78	7.16	.301	378	.763
	Male	101	20.52	7.88			
Distraction	Female	279	24.74	7.55	.072	378	.942
Suppression	Male	101	24.67	8.24			
Repression Denial	Female	279	14.25	7.11	2.771	378	.006*
	Male	101	16.60	7.81			
Distress	Female	279	25.74	6.82	2.445	378	.015*
Endurance	Male	101	27.62	6.05			

* $p < .05$

3.1.3. Minimum, Maximum, Average and Standard Deviation Values for Scales

Mean, standard deviation, minimum and maximum values of the scores of childhood traumas, somatization, mindfulness awareness, psychological flexibility, cognitive flexibility, behavioral avoidance, distress aversion, procrastination, distress suppression, repression denial, distress endurance of participants obtained from the scales measuring are presented in Table 3.

Table 3. Minimum, Maximum, Average and Standard Deviation Values for Scales

Scales	Mean	Standard Deviation	Minimum	Maximum
CTQ	45.38	8.61	33	76
SCL-11	1.06	.80	.00	3.64
MAAS	61.40	14.24	19	90
PFS	135.27	20.39	68	187
CFS	55.53	8.88	30	72
Behavioral Avoidance	26.31	6.31	6	35
Distress Aversion	21.11	7.79	5	35
Procrastination	20.71	7.23	5	35
Distress Suppression	24.72	7.73	5	35
Repression Denial	14.88	7.37	5	35
Distress Endurance	26.24	6.67	5	35

3.2. Main Analysis

3.2.1. Correlation Analysis for All Scales

Pearson correlation analysis was conducted to measure the relationship between somatization, emotional abuse, emotional neglect, physical abuse, sexual abuse. It was found that there was significant positive relationship between somatization and emotional abuse (r = .32, p< 0.01), emotional neglect (r = .22, p< 0.01), physical abuse (r = .17, p< 0.01) and sexual abuse (r = .18, p< 0.01) (*Table 5).*

The results of pearson correlation analysis measuring the relationship between somatization, childhood traumas, mindfulness, psychological flexibility, cognitive flexibility and experiential avoidance are presented in *Table 6.*

There was a significant relationship between childhood trauma and somatization, showing that individuals with higher somatization experiences more traumas. Furthermore, somatization was also found as negatively correlating with mindfulness, psychological flexibility and cognitive flexibility. These results show that the higher somatization associated with the lower mindfulness, psychological flexibility and cognitive flexibility. Additionally, somatization was also found as positively correlating with distress aversion, procrastination, distraction suppression

and repression denial. These results show that the higher somatization associated with the higher distress aversion, procrastination, distraction suppression and repression denial. Besides, there is not any correlation between somatization and behavioral avoidance and distress endurance (*Table 6*).

There was a significant negative relationship between childhood trauma and mindfulness, psychological flexibility, cognitive flexibility, behavioral avoidance, repression and denial and distress endurance, showing that individuals with higher childhood trauma experiences lower mindfulness, psychological flexibility, cognitive flexibility, behavioral avoidance, repression and denial and distress endurance. Furthermore, childhood trauma was found as positively correlating with distress aversion, procrastination and distress endurance. These results show that the higher childhood trauma associated with the higher distress aversion, procrastination and distress endurance. Besides, there is not any correlation between childhood trauma and distraction suppression (*Table 6).*

Table 5. Correlations Between Somatization Scale and Subscales of Childhood Trauma Questionnaire

	Somatization Scale	Emotional Abuse	Emotional Neglect	Physical Abuse	Sexual Abuse
Somatization Scale	1				
Emotional Abuse	.32**	1			
Emotional Neglect	.22**	.60**	1		
Physical Abuse	.17**	.46**	.29**	1	
Sexual Abuse	.18**	.31**	.15**	.09	1

* $p<.05$, ** $p<.01$.

Table 6. Pearson's Correlation Analysis Results for All Variables

	1	2	3	4	5	6	7	8	9	10	11
1.Somatization Scale	1										
2.CTQ	.30**	1									
3.MAAS	-.31**	-.24**	1								
4.PFS	-.26**	-.25**	.44**	1							
5.CFS	-.16**	-.26**	.25**	.62**	1						
6.Behavioral Avoidance	.07	-.16**	-.04	.01	.78	1					
7.Distress Aversion	.21**	.12*	-.16**	-.39**	-.21**	.38**	1				
8.Procrastination	.20**	.11*	-.30**	-.43**	-.34**	.05	.27**	1			
9.Distraction Suppression	.12*	-.03	-.07	-.18**	.04	.42**	.52**	.13*	1		
10.Repression Denial	.26**	-.13*	-.30**	-.49**	-.28**	.17**	.32**	.38**	.27**	1	
11.Distress Endurance	-.03	-.19**	.11*	.44**	.51**	.16**	-.02	-.32**	.15**	-.03	1

Note. * $p<.05$, ** $p<.01$. 1= Somatization Scale, 2= Childhood Trauma Questionnaire, 3=Mindful Attention Awareness Scale, 4=Psychological Flexibility Scale, 5= Cognitive Flexibility Scale, 6= Behavioral Avoidance, 7= Distress Aversion, 8= Procrastination, 9= Distraction Suppression, 10= Repression Denial, 11= Distress Endurance

3.2.3. Regression Analysis Predicting Somatization

The results of the regression analysis regarding whether emotional neglect, physical abuse, emotional abuse and sexual abuse significantly predict somatization levels presented in Table 7. It was found that the scores obtained from the emotional neglect scale had an effect on the somatic symptom scores (β=.22, p<0.01). The scores obtained from the emotional neglect scale affect 4.6% of the somatic symptom scores. In other words, 4.6 % of somatic symptoms are explained by emotional neglect scores. It was found that the scores obtained from the physical abuse scale had an effect on the somatic symptom scores (β =.17, p<0.05). The scores obtained from the physical abuse scale affect 2.9 % of the somatic symptom scores. In other words, 2.9 % of somatic symptoms are explained by physical abuse scores. It was found that the scores obtained from the emotional abuse scale had an effect on the somatic symptom scores (β =.32, p<0.01). The scores obtained from the emotional abuse scale affect 10.4 % of the somatic symptom scores. In other words, 10.4 % of somatic symptoms are explained by emotional abuse scores. It was found that the scores obtained from the sexual abuse scale had an effect on the somatic symptom scores (β = .18, p<0.01). The scores obtained from the sexual abuse scale affect 32 % of the somatic symptom scores. In other words, 32 % of somatic symptoms are explained by sexual abuse scores (*Table 7*).

Table 7. Simple Linear Regression Analysis of the Effects of Subscales of CTQ Scores on Somatic Symptom Scores

Predicter	Dependent Variable	*B*	*SE B*	*β*	*t*	*p*
Emotional	Constant	.70	.10		7.335	.000**
Neglect	Somatization	.04	.01	.22	4.283	.000**
Physical	Constant	.57	.15		3.768	.000**
Abuse	Somatization	.09	.03	.17	3.370	.001**
Emotional	Constant	.51	.09		5.583	.000**
Abuse	Somatization	.08	.01	.32	6.625	.000**
Sexual	Constant	.75	.10		7.620	.000**
Abuse	Somatization	.05	.02	.18	3.555	.000**

Note. R^2 = .046 for Emotional Neglect; R^2 = .029 for Physical Abuse; R^2 = .104 for Emotional Abuse; R^2 = .32 for Sexual Abuse. * p<.05, **p<.01.

3.2.4. Mediation Analysis

Analyzes were made using the PROCESS Macro developed by Hayes (2013), which was added to the SPSS 20.0 program. The PROCESS program basically makes use of regression analysis and ensures that the variables are entered into the regression analysis collectively during the mediator variable analysis. The "bootstrap" method is used during the mediator variable analysis in the PROCESS program. In this method, sub-samples are randomly generated from the research data and the tested mediation model is analyzed for these sub-samples and the analysis results of the larger research sample and sub-samples are compared with each other. In the current study, during the mediator variable analysis, 5000 bootstrap samples were used as suggested by Hayes (Field, 2013; Hayes, 2013) and 95% confidence interval was used as the confidence interval. The fact that the confidence interval contains "0" indicates that the effect between variables is not significant. In the study, childhood trauma was taken as the predictor variable (independent variable) and somatization level as the predicted variable (dependent variable), while mindfulness, psychological flexibility, cognitive flexibility and experiential avoidance respectively were considered as the mediator variable.

3.2.4.1. Mediating Role of Mindfulness in the Relationship Between Childhood Trauma and Somatization

The simple mediation analysis was run to examine mediating role of mindfulness in the relationship between childhood trauma and somatization. According to the findings, childhood trauma significantly predicted mindfulness, b = -.40, t = -4.79, p <.001. Mindfulness explains 6% of the variance. Childhood trauma significantly predicted somatization statistically significantly even with mindfulness, b = .02, t = 4.95, p <.001. When childhood traumas were controlled, mindfulness statistically significantly predicted somatization, b = -.01, t = -5.13, p <.001. When mindfulness is not in the model, childhood trauma significantly predicted somatization level statistically significantly, b =.03, t = 6.16, p <.001. There was a significant indirect effect of childhood trauma on somatization through mindfulness, b =.01, 95% Cl = [.003, .009] (*Figure 2*).

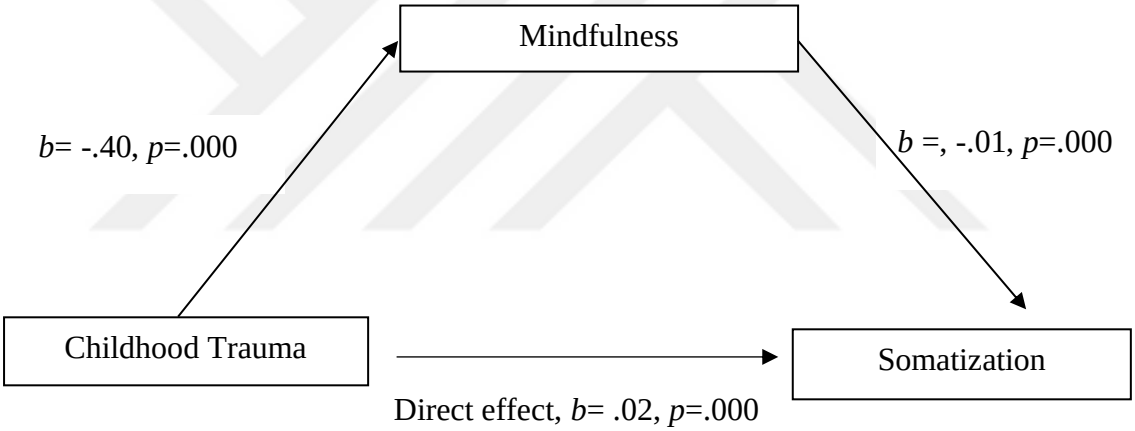


Figure 2. Mediator Analysis Model for Mindfulness

3.2.4.2. Mediating Role of Psychological Flexibility in the Relationship Between Childhood Trauma and Somatization

The simple mediation analysis was run to examine mediating role of psychological flexibility in the relationship between childhood trauma and somatization. According to the analysis findings, childhood trauma significantly predicted psychological flexibility, b = -.59, t = -4.97, p <.001. Psychological flexibility explains 6% of the variance. Childhood trauma significantly predicted somatization statistically significantly even with psychological flexibility, b = .02, t = 5.10, p <.001. When childhood traumas were controlled for, psychological flexibility

statistically significantly predicted somatization, *b* = -.01 *t* = -3.94, *p* <.001. When psychological flexibility is not in the model, childhood trauma significantly predicted somatization statistically significantly, *b* =.03, *t* = 6.16, *p* <.001. There was a significant indirect effect of childhood trauma on somatization through psychological flexibility, *b* =.01, 95% Cl = [.002, .010] (*Figure 3*).

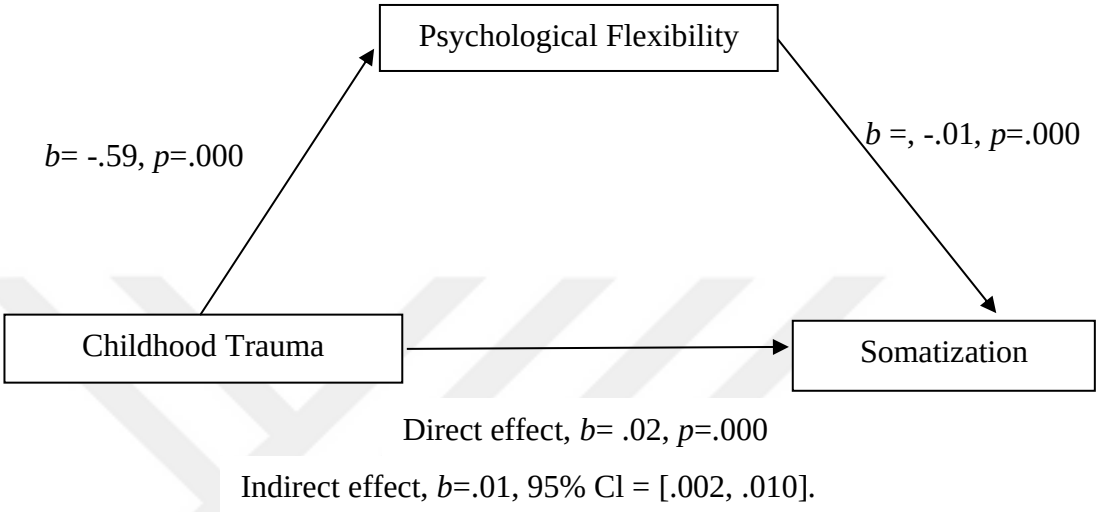
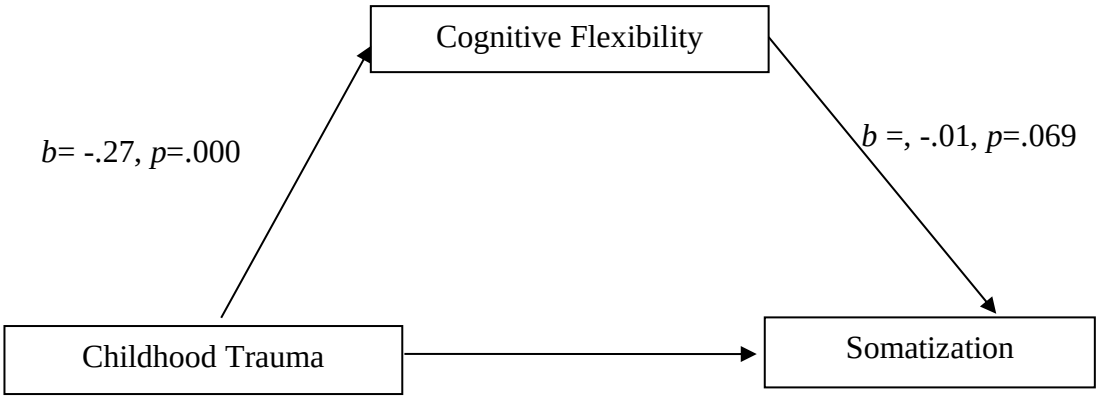


Figure 3. Mediator Analysis Model for Psychological Flexibility

3.2.4.3. Mediating Role of Cognitive Flexibility in the Relationship Between Childhood Trauma and Somatization

The simple mediation analysis was run to examine mediating role of cognitive flexibility in the relationship between childhood trauma and somatization. According to the analysis findings, childhood trauma significantly predicted cognitive flexibility, *b* = -.27, *t* = -5.17, *p* <.001. Cognitive flexibility explains 7% of the variance. Childhood trauma significantly predicted somatization statistically significantly even with cognitive flexibility, *b* = .03, *t* = 5.150, *p* <.001. When childhood traumas were controlled for, cognitive flexibility did not statistically significantly predict somatization, *b* = -.01 *t* = -1.82, *p* >. 05. When cognitive flexibility is not in the model, childhood trauma significantly predicted somatization statistically significantly, *b* =.03, *t* = 6.16, *p* <.001. There was not a significant indirect effect of childhood trauma on somatization through cognitive flexibility, *b* =.00, 95% Cl = [-.000, .005] (*Figure 4*).



Direct effect, *b*= .03, *p*=.000

Indirect effect, *b*=.00, 95% Cl = [-.000, .005].

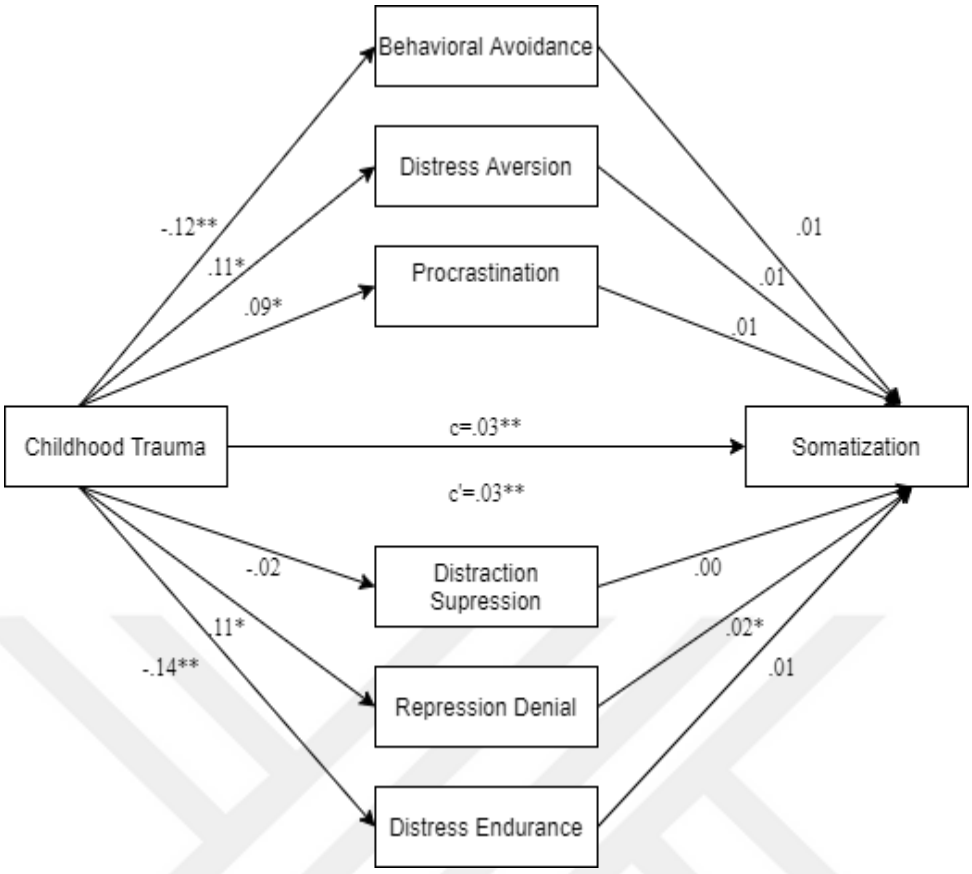
Figure 4. Mediator Analysis Model for Cognitive Flexibility

3.2.4.4. Mediating Role of Experiential Avoidance in the Relationship Between Childhood Trauma and Somatization

The mediating role of experiential avoidance and experiential avoidance subscales in the relationship between childhood traumas and somatization was examined by parallel multiple mediation analysis. 6 sub-scales of the multidimensional experiential avoidance questionnaire included in the model as mediating variables at the same time.

The model significantly predicted and explained the 16% of variance in somatization, R^2= .163, $F_{(7,372)}$= 10.32, *p*= .000. According to the analysis findings, childhood trauma significantly predicted behavioral avoidance, *b*= -.12, *t* = -3.24, *p* <.01. Behavioral avoidance explains 3% of the variance. According to the analysis findings, childhood trauma significantly predicted distress aversion, *b*= .11, *t* = 2.34, *p* <.05, explaining 1% of the variance. On the other hand, childhood trauma significantly predicted procrastination, *b*= .09, *t* = 2.07, *p* <.05. Procrastination explains 1% of the variance. Regarding distraction suppression, childhood trauma did not predict distraction suppression, *b*= -.02, *t* = -.497, *p* >.05. Furthermore, childhood trauma significantly predicted repression denial, *b*= .11, *t* = 2.62, *p* <.05, with explaining 2% of the variance. Finally, childhood trauma significantly predicted distress endurance, *b*= -.14, *t* = -3.66, *p* <.01. Distress endurance explains 3% of the variance. When behavioral avoidance, distress aversion, procrastination, distraction suppression, repression denial and distress endurance are not in the model, childhood

trauma *b*= .03, *t* = 6.157, *p* <.001significantly predicts somatization. In addition, childhood trauma *b*= .03, *t* = 5.570, *p* <.001 significantly predicted somatization statistically significantly even with behavioral avoidance, distress aversion, procrastination, distraction suppression, repression denial and distress endurance. When childhood traumas were controlled, the following subscales did not predicted somatization; behavioral avoidance (*b*= .01 *t* = .733, *p* >05), distress aversion (*b*= .01 *t* = 1.39, *p* >05), procrastination (*b*= .01 *t* = 1.99, *p* >05), distraction suppression (*b*= .00 *t* = -.022, *p* >05) and distress endurance (*b*= .01 *t* = 1.17, *p* >05). Only repression denial significantly predicted somatization with *b*= .02 *t* = 2.78, *p* <05. When experiential avoidance 6 dimensions is not in the model, childhood trauma significantly predicted somatization significantly, *b*=.03, *t* = 6.16, *p* <.001. There was not a total significant indirect effect of childhood trauma on somatization through experiential avoidance with 6 dimensions, *b*=.00, 95% Cl = [-.002, .007]. Furthermore, there was a significant indirect effect of childhood trauma on somatization through only repression and denial, *b*=.00, 95% Cl = [-.000, .004] (*Figure 5*).



*p<.05, ** p<.01, c' = direct effect, c = total effect

Figure 5. Parallel Multiple Mediator Analysis Model for Experiential Avoidance with 6 sub-dimensions

CHAPTER 4: DISCUSSION

4.1. Discussion of the Results

The present study aimed to examine the mediating role of mindfulness, psychological flexibility, cognitive flexibility and experiential avoidance in the relationship between childhood traumas and somatization. For this purpose, related analyzes were performed. Firstly, the gender difference was found for the somatization, repression denial and distress endurance scores while gender difference was not found for childhood traumas, mindfulness and psychological flexibility. Secondly, somatization was related to childhood traumas and, moreover, sexual abuse, emotional abuse, emotional neglect and physical abuse were explained somatization. Emotional abuse had the strongest relationship with somatization. Another relationship was between somatization and experiential avoidance. As somatization increased, experiential avoidance increased. Childhood traumas were one of the important predictors for cognitive flexibility. Regarding the main analysis, mindfulness, psychological flexibility and only repression denial subscale from the experiential avoidance scale were found as significant mediators in the relationship between childhood trauma and somatization. Cognitive flexibility on the other hand did not mediate the relationship between childhood trauma and somatization. The findings obtained from the analyzes were discussed in the light of the literature. Findings related to research questions, limitations and recommendations for future research are discussed in the next section.

4.1.1. Gender Differences for Somatization, Childhood Traumas, Mindfulness, Psychological Flexibility, Cognitive Flexibility and Experiential Avoidance Scales

Results showed that gender differences were found for experiencing somatization. Women experienced somatization more than men. Also, a study conducted in 2019 supports this result (Aydınlı, 2019). The research with 219 participants showed that somatization scores were different in gender and women experienced somatization more than men (İnci, 2020). In addition, one population-based study with 7.466 participants supported this gender-related result (Ladwig et al., 2001). Ethnicity, race, upbringing, personality and plenty of other characteristics could impact somatization results in different genders. Barsky et al., have attempted to explain this in a variety of ways. Firstly, women are more likely than men to suffer from various common psychiatric diseases (such as depression and anxiety) that have

different bodily manifestations. Also, women report more present and previous abuse and trauma linked to seeking medical treatment and reporting somatic symptoms. Alternatively, men and women appear to have different judgment and evaluation thresholds regarding labeling and describing a certain experience as damaging, unpleasant and irritating, i.e., as a symptom (Barsky et al., 2001). This reporting bias is cultural norms and perspectives on gender differences in childhood (Kirmayer and Young, 1998). Another result is that gender differences could not be found significantly different in the childhood trauma scores. The same result was found in literature many times (Baylan, 2019; İnci, 2020;). Moreover, the prevalence of childhood abuse in men was over 40%, whereas it was around 30% in women. Furthermore, gender has been discovered to be a significant factor in sexual abuse. Women were more likely than men to say they had been sexually abused in the past (Scher et al., 2004). Thus, gender differences could not find in researches, but there is still gender difference accordingly types of traumas. Furthermore, the sample was not a prom clinical sample. It can be explained why gender differences could not be found in the research because childhood traumas are generally more common in a clinical sample (Katon, Sullivan and Walker2001). Moreover, gender differences did not find significant for mindfulness. Similar results were found in the literature (Masuda and Tully, 2012; Ramaci et al., 2019). Another research found a significant gender difference in mindfulness and it was explained that the ability of the individual to express own feelings and thoughts with words was found to be more related to women (Gilbert and Waltz, 2010). A study showed that there were gender and age differences for some aspects of mindfulness. Thus, using a scale that evaluates mindfulness with different aspects and evaluating different age groups might explain the different results (Alispahic and Hasanbegovic-Anic, 2017). Similarly, for psychological flexibility, gender differences were not significant. In 2012, one study showed the opposite result, which was found significant for gender in psychological flexibility value (Masuda and Tully, 2012). Psychological flexibility is a general term and consists of different concepts, such as acceptance, cognitive fusion, being in contact with the present moment, self as context, values and committed action. Thus, it is difficult to conclude from the study why studies differ regarding gender differences. Further research is needed to gain detailed information about gender differences in psychological flexibility. According to the results of the t-test, gender differences could not be found significantly different in the cognitive flexibility scores. A study with 549 university

students showed a similar result with same analysis in 2019 (Doğan Laçın and Yalçin, 2019). To determine whether the cognitive flexibility levels of the participants differ according to gender, a t-test was performed for unrelated samples in other studies. No significant difference was found regarding the cognitive flexibility scores of men and women (Doğan Laçın and Yalçin, 2019; Zahal,2014). Adults who can think abstractly are developmentally expected to perform high-level cognitive tasks such as reasoning and problem-solving. Therefore, it was stated that cognitive flexibility, which is a part of this high-level cognitive system, depends on the normal functioning of the cognitive systems of every healthy individual. Owen et al., (1993) stated that cognitive flexibility depends on the normal functioning of the cognitive systems of every healthy individual (Owen et al., 1993). Thus, as a result, it was concluded that cognitive flexibility could not be differentiated by gender. Gender could not be found enough to the explanation of cognitive flexibility. As Owen et al., emphasized, quality of functioning is one of the important things for cognitive flexibility; thus, age is not enough. Lastly, in the present study, when experiential avoidance subscales were examined by gender, according to the t-test results, no gender differences were found in behavioral avoidance, distress aversion, procrastination, distraction suppression. Besides, men showed more experiential avoidance with repression denial and distress endurance than women. Differently, compared to men students, women students' subscale of MEAQ were found to be significantly higher (Kurtoğlu, Yıldırım and Güzel, 2019). Moreover, explaining the gender difference between experiential avoidance with the above sub-dimensions, both experiential avoidance and many forms of masculinity may be associated with rigidity in men's responses to negative personal experiences (Spendelow and Joubert, 2018). Thus, Social roles or norms can be an explanation for this difference. Along with the view supported by Spendelow and Joubert (2018), it explains the nature of the relationship between social norms and experiential avoidance, when viewed within the framework of the idealized view of masculinity, how men should feel, think and act.

4.1.2. Discussion of Relationships Between, Somatization, Childhood Traumas, Mindfulness, Psychological Flexibility, Cognitive Flexibility and Experiential Avoidance

Many studies suggested that somatization was associated with childhood trauma (Anda et al., 2006; Kroska, Roche and O'Hara, 2018; İnci, 2020). Similarly, in the present study, greater childhood trauma scores were found associated with greater

somatization. There are many different studies about different types of childhood trauma and somatization (Anda et al., 2006; Waldinger et al., 2006). Both somatic symptom severity and somatoform dissociative symptoms were strongly associated with sexual abuse, emotional abuse, emotional neglect and physical neglect. It was emphasized that adverse emotional abuse affected the severity of somatic symptoms (Bohn et al., 2013). In another study, somatization was related to emotional abuse and neglect (Spertus et al., 2003). Indeed, traumatic sexual experiences were related to somatization and different psychiatric disorders (Barsky et al., 1994; Öztürk, Tanriverdi and Sapmaz, 2017). One study supposed that individuals who have been emotionally abused in childhood are more likely to show psychosomatic symptoms (Hunca, 2015). Women who had experienced sexual abuse had significantly greater somatization scores than women who had not experienced sexual abuse (Reiter et al., 1991). Furthermore, expectedly, somatization was found associated with childhood traumas and the relationship between sexual abuse and somatization is another significant finding. In the present study, sexual abuse, emotional abuse, emotional neglect and physical abuse were significant predictors for somatization. Additionally, emotional abuse was stronger associated with somatization than sexual abuse, emotional neglect and physical abuse. In conclusion, it has been emphasized that the individual's distressing life events (childhood traumas) are showed as a manifestation of the psychological state with the body (somatization).

In understanding somatic symptoms, psychological inflexibility and mindfulness are two linked but distinct emotion/behavior control processes. It means psychological inflexibility and mindfulness can investigate separately, even both of them take a similar approach generally. (Hayes et al., 2006). Higher mindfulness was associated with higher psychological flexibility in the present study. A study showed a similar result; mindfulness and psychological flexibility were positive relationships (Masuda and Tully, 2012). The present study showed that higher mindfulness and higher psychological flexibility were related to lower somatization symptoms, which is in line with the literature (Masuda and Tully, 2012; Leonidou et al., 2019). It explained that mindfulness and psychological flexibility are related but not identical phenomena and that both are required to understand the onset and persistence of somatization (Masuda and Tully, 2012). Similarly, more psychological flexibility and mindfulness were associated with less somatic, depressive and anxiety symptoms

(Masuda et al., 2014). Indeed, greater mindfulness is associated with weak somatic symptoms in the research, similarly with the literature. Lower somatic complaints were associated with greater mindfulness (Masuda et al., 2014). According to the findings of a study, an individual's behavior to regulate and reduce to experience undesired emotions, ideas, or experiences is an essential factor to consider in comprehending anxious symptomatology (such as somatization) (Tavakoli et al., 2019). Most of the research showed similar results with the study that mindfulness and psychological flexibility have a relationship between early life traumas and somatization (Masuda and Tully, 2012; Fjorback et al., 2013; Ortiz and Sibinga, 2017; Ramaci et al., 2019; Richardson and Jost, 2019; Tavakoli et al., 2019). Psychological flexibility was found to be lower in people who reported being more negatively affected by trauma. The explanation for this is assumed to be because those who are still suffering from the adverse effects of their trauma have not acquired the necessary psychological flexibility to minimize the impact of trauma (Elliot et al., 2015; Richardson and Jost, 2019).

Findings emphasized that regulating processes such as conscious awareness and psychological openness without avoidance play critical roles in somatization maintenance (Masuda and Tully, 2012). Similarly, somatization was found related to distress aversion, distraction suppression, procrastination, repression denial and while it did not relate to behavioral avoidance and distress endurance. Higher somatization symptoms were found associated with higher related experiential avoidance types. Similarly, experiential avoidance has been associated with somatic problems, according to one study (Greco, Lambert and Baer, 2008). Another study showed a similar result that experiential avoidance was related to somatization symptoms (Kroska et al., 2018). From that view of point, one regulating process can be one of the explanations for the relationship between somatization and experiential avoidance. Although experiential avoidance functions to provide immediate relief from discomfort, continued involvement in these strategies increases the frequency of undesirable experiences and can have long-term costs (Greco et al., 2008). In addition, the explanation for the associated emergence of somatization and experiential avoidance; can be explained by the fact that individuals exposed to avoiding trauma are more likely to experience somatization symptoms (Tull et al., 2004). There was no

evidence of a relation between thought suppression and the occurrence of somatization symptoms.

Additionally, experiential avoidance has been associated with higher psychological distress in women who have experienced child sexual abuse, according to a study (Batten, Follette and Aban, 2002). Following childhood trauma, the recent studies clearly emphasize the necessity of nonjudgmental acceptance of internal experience, rather than avoidance or judgment of these, as crucial objectives for intervention (Masuda and Tully, 2012). In the present study, according to the results of the scale containing the sub-dimensions of experiential avoidance, childhood traumas were found related to behavioral avoidance, distress aversion, procrastination, repression denial and distress endurance while did not find associated with distraction suppression. When experienced childhood traumas increase, related experiential avoidance types increase. Thus, experiential avoidance can be a regulatory process for one's traumatic experiences (Marx and Sloan, 2002). Meaning that individuals try to avoid behaviors and triggers relating to the trauma to cope with it.

Higher somatic symptoms were associated with lower cognitive flexibility. Besides, Somatization tendencies were found inversely related to cognitive flexibility (Doğan Yatar,2020). In literature, the relationship between somatization and cognitive flexibility was not explained efficiently. A study was conducted to explore the distinct effects of cognitive versus somatic components of anxiety; neither somatic nor cognitive anxiety predicted processing speed significantly (Mella et al., 2020). Cognitive (but not somatic) anxiety was a significant predictor of cognitive flexibility, with higher levels of anxiety being associated with shorter cognitive flexibility completion times (Mella et al., 2020).

Moreover, experiencing high childhood traumas was associated with low cognitive flexibility in the present study. Similarly, in one cross-sectional study, results revealed that in measures of cognitive flexibility, the group's mean scores with PTSD were considerably lower than those of the group without PTSD (Daneshvar et al., 2020). In another study which examined the relationship between self-reported childhood maltreatment and cognitive flexibility, in adolescent. The findings imply that physical abuse and physical neglect in adolescents are associated with reduced cognitive flexibility (Porter, Lawson and Bigler, 2005; Spann et al., 2012; Harms et

al., 2018). In the present study, childhood traumas were found significant predictor for cognitive flexibility.

Additionally, according to one of the results of the study examining the relationship between the types of childhood trauma experiences and cognitive flexibility; physical abuse, sexual abuse, emotional abuse and neglect emotional were identified to have a significant effect on cognitive flexibility (Odacı, Bülbül and Türkkan, 2021). Childhood traumatic events may have a negative impact on cognitive flexibility, which is defined as the ability to perceive challenging situations as controllable and the ability to be aware of alternative human responses (Finkelhor, 1990). Furthermore, according to many sources, childhood abuse can cause individuals to develop a distrustful attitude and cognitive impairments and impaired affect processing. Thus, childhood traumas may have made it difficult for people to produce different solutions and develop alternative perspectives; that is, a person may not has had the opportunity to develop their cognitive flexibility. These impairments can be one of the explanations of the relationship between somatization and cognitive flexibility.

4.1.3. Discussion of Mediating Role of Mindfulness in the Relationship Between Childhood Trauma and Somatization

Mindfulness was found as a significant mediator for the relationship between childhood traumas and somatization, supported by another study by Kroska et al. (Kroska et al., 2018). In the present study, childhood trauma significantly predicted somatization meaning that individuals who experienced more childhood traumas also showed higher somatization. Childhood trauma negatively predicted mindfulness, meaning that individuals who had more childhood traumas also showed lower mindfulness levels. Mindfulness also negatively predicted somatization meaning that individuals who experienced more mindfulness showed lower somatization. They also found mindfulness as an important mediation factor. Furthermore, psychological flexibility was also seen as a mediator for the relationship between childhood traumas and somatization in the present study. In the present study, childhood traumas negatively predicted psychological flexibility meaning that individuals who had more childhood traumas also showed lower psychological flexibility. Psychological flexibility also negatively predicted somatization which means that individuals who experienced more psychological flexibility also showed lower somatization. Masuda

and Tully (2012) were found the same mediating role of psychological flexibility in the relationship between childhood trauma and somatizations (Masuda and Tully, 2012). Indeed, the level to which one encounters these psychological problems may be accounted for separately by one's unwillingness to face challenging psychological experiences and one's impaired capacity to pay attention to one's internal and external situations in an instant in time (Masuda et al., 2014). From the point of view, the degree to which one is afraid to contact distressing internal and external experiences (such as childhood traumas), as well as the extent to which one is mindful of the present-moment experience, are both significant notions in understanding somatization (Kroska et al., 2018; Masuda et al., 2014). According to these results, it is thought that the importance of using the ACT therapy approach, which emphasizes staying in the moment and psychological flexibility, in the treatment of somatization and childhood will contribute to clinical studies (Hayes et al., 1996; Kroska et al., 2018).

Consequently, even though participants reported childhood traumas, those with mindfulness reported less somatization. Mindfulness means concentrate awareness on the moment, the present moment, without evaluating it. Thus, it might be that being in the present moment, having a non-judgmental attitude towards inner experience could be a protective factor for somatization. Similarly, psychological flexibility might also be an important protective factor, showing that it decreases somatization even though individuals experience childhood trauma.

While some recent research indicates that experiential avoidance can be linked to various psychopathologies, a significant flaw in this study is the lack of theoretical integration and sophistication in terms of operationalizing and evaluating experiential avoidance (Chawla and Ostafin, 2007). The different subscales given by the multidimensional experiential avoidance measure can be useful in clinical settings, identifying possible areas of focus and guiding interventions (Gámez et al., 2011) and supporting the concept of experiential avoidance as a multifaceted, cross-theoretical framework that offers knowledge on a broad variety of pathologies (psychopathology, quality of life) beyond the consequences of people's tendency for negative emotions (Gámez et al., 2011). Experiential avoidance has been identified as a mediator in the relationship between trauma exposure and poor psychological outcomes in many research (Polusny et al., 2004; Reddy, Pickett and Orcutt, 2006). Additionally, the study within adolescents showed that the relationship between childhood trauma and

somatization was strongly mediated by experiential avoidance (Kroska et al., 2018). In the present research mediating roles of experiential avoidance with six dimensions were not found in the relationship between childhood trauma and somatization. In detail, the relationship between childhood trauma and somatization explained one of the experiential avoidances subdimension, which is repression denial. In the present study, childhood traumas positively predicted repression denial which means that individuals who had more childhood traumas also showed lower mindfulness levels.. Repression denial also positively predicted somatization which means that individuals who experienced more repression denial also showed high somatization. According to this result, it is seen that childhood traumas did not explain somatization with six sub-dimensions of experiential avoidance. As a result, that, the literature and present study were showed different results. One explanation for that could be the used scales. In the present study, MEAQ was used, which measures experiential avoidance with six detailed sub-dimensions with 30 questions, which is relatively new in the literature and therefore is not familiarly used yet. On the other hand, in the literature, experiential avoidance is commonly measured with scales such as Avoidance and Fusion Questionnaire for Youth, Acceptance and Action Questionnaire-II (Kroska et al., 2018; Reddy, Pickett and Orcutt, 2006). In this difference, the first explanation can be the use of this scale while another reason can be participants' age range. In this research participants' age were between 18-76. From this point of view, one study conducted by Robertson and Hopko (2009) supports this situation. The study; emphasized that experiential avoidance can be observed in different ways in different age groups and its role may differ (Robertson and Hopko, 2009). Moreover, a person's response to situations (such as experiential avoidance) can explain the mechanism between childhood trauma and somatization with repression denial. At the same time, this study emphasized that repression denial will be an important variable for the relationship between childhood trauma and somatization in the literature.

Cognitive flexibility did not mediate the relationship between childhood trauma and somatization. In the present study, childhood traumas negatively predicted cognitive flexibility which means that individuals who had higher childhood trauma showed also lower cognitive flexibility. Cognitive flexibility did not predict somatization. In addition, in the mediation analysis, cognitive flexibility did not explain somatization. At the same time, another research was supported that cognitive

flexibility level has a statistically significant predictive role on somatization tendency even with low levels (Doğan Yatar, 2020). There could not be any similar study in the literature to investigate the relationship between the mediating role of cognitive flexibility between childhood trauma and somatization. As explained by the related studies above (Finkelhor, 1990; Doğan Yatar, 2020; Odacı et al., 2021), cognitive flexibility has been a concept that has significant effects and is associated with childhood trauma and somatizations. Cognitive flexibility is defined as the ability to change their cognition according to changing environmental conditions (Dennis and Vander Wal, 2010). In other words, considering alternative explanations or changing the perspective for a given situation. The results of the present study showed that cognitive flexibility is negatively associated with childhood traumas. It could be that individuals in general who experience less traumatic events in their childhood are more cognitively flexible, perhaps due to better coping strategies. Thus, individuals who have experienced childhood trauma may have difficulties in bringing other perspectives and alternatives to the trauma they have experienced. Regarding the results that cognitive flexibility was not found as a mediating role, it could be that cognitive flexibility is not enough to decrease the effects of trauma on somatization. In addition, somatization is associated with emotional states. While it is also defined as the embodied state of excessive emotions, the fact that somatization is associated with emotional processes and cognitive flexibility is associated with cognitive processes may be an explanation for the present study's results.

In summary, mindfulness, psychological flexibility and repression, denial were found as significant mediators for the relationship between childhood trauma and somatization.

4.2. Limitations and future suggestions

In this section, the research limitations are mentioned and suggestions for future research are made. A comprehensive study was conducted examining the mediating effect of different variables in the relationship between childhood trauma and somatizations. This situation caused most participants' feedback about the length of the scale presented to the participants and the excess of questions. The similarities of variables such as mindfulness, psychological flexibility and experiential avoidance may lead to the thought of filling similar questions and again. Consequences of that may be that the participants are bored or distracted. At the same time, since this study

was conducted during the Covid-19 pandemic, data was collected online. There is no information about the conditions for the participants to fill in the questions in the study. When the research limitations are evaluated, the characteristics of the sample structure are one of the points. First, the participants' education level, age and gender distribution are extensive and an approximate distribution cannot be achieved. The fact that there are more women participants than men is the limitation of the study. Another limitation of the study is the limitations of data collection tools. The fact that the scales are based on self-report is an important limitation of the study. Questioning retrospective experiences in studies examining experienced traumatic events causes limitations due to time, memorability and age. Studies revealing that age affects incorrect recall of negative emotional stimuli and illusions occur in the recall of past events with increasing age available (Brainerd et al., 2003; Brainerd et al., 2008). In addition, this study was conducted using a scale that includes sub-dimensions of experiential avoidance; it does not give a total score, which is not very common in the literature. The details provided by this scale are important, so it is recommended to use this scale as an experiential avoidance scale in studies.

Another limitation is the sample. The sample is not clinical; this is a healthy sample. Thus, if this study conduct with a clinical and control group might give different results. Although associations have been found between cognitive flexibility, somatization and childhood traumas, some points do not provide clear evidence. It has been seen that there is a need for research, especially looking at the mediator effect of cognitive flexibility and its relationship with somatization. Based on the findings of this study, only collected data on the scale due to the limitations of time and the Covid 19 process. It is suggested that the creation of research designs with clinical interventions based on these concepts may be necessary in presenting the place of these concepts in clinical practice, such as applying mindfulness or psychological flexibility interventions within a certain time and collecting data before and after the intervention.

Additionally, mindfulness, psychological flexibility and repression denial were found to have mediator roles, so they may be tools that can be used to treat somatization. As demonstrated in this study and other studies (Lakhan and Schofield, 2013; Leonidou et al., 2019; Woolfolk and Allen, 2007), mindfulness and psychological flexibility can develop through Cognitive Behavioral Therapy (CBT), MBCT or ACT. As a result, it can be said that there may be a decrease in somatic

symptoms and repression denials. Furthermore, while this study can contribute to the field of intervention, it has also been a guide for prevention. Based on the fact that mindfulness, psychological and cognitive flexibility are concepts related to psychopathology; To prevent psychopathology, mindfulness practice in schools, or prevention studies to develop psychological and cognitive flexibility might be done.

CHAPTER 5: CONCLUSION

According to the study's findings, which investigated the role of mindfulness, psychological flexibility, cognitive flexibility and experiential avoidance in the relationship between childhood trauma and somatization, all variables were found related to childhood trauma and somatization. While mindfulness, psychological flexibility and repression denial were mediated, behavioral avoidance, distress aversion, procrastination, distraction suppression, distress endurance, cognitive flexibility have not mediated the relationship between childhood traumas and somatization. The present recent study is the first one which investigated ACT concepts, namely mindfulness, psychological flexibility and experiential avoidance and cognitive flexibility factors in the relationship between childhood trauma and somatization all together in one study. The results highlight again the importance of mindfulness, psychological flexibility and repression denial on the relationship between childhood trauma and somatization. The result of the study contributes to the literature by providing a better understanding of the mediating variables that play a role in the relationship between childhood trauma and somatization. It also has the following clinical implications. Somatization has pain and symptoms that have no physical explanation and when there is no physical treatment, working on more acceptance and awareness may make a greater contribution, rather than finding flexible thinking and alternatives when working with CBT. Perhaps the lack of cognitive flexibility can be explained by the importance of other theories when working with somatization is considered. As a result, the importance of mindfulness and psychological flexibility concepts is emphasized while working with somatization. Therefore, it is thought that therapy approaches such as Mindfulness based interventions, MBCT, or ACT, which contain concepts such as mindfulness, staying in the moment, acceptance, or combining mindfulness with cognitions can be used effectively in treatment.

5.1. Implications

It was emphasized that the importance of examining these terms in detail and in different ways and that these variables should be considered both academic research and clinical applies (such as; therapy) and impact people's mental health. These findings play an important role in both research and treatment. As mentioned before, ACT includes the concepts of mindfulness and psychological flexibility. And it is

emphasized that with psychological flexibility, experiential avoidance can be minimized. Therefore, clinically, it may be important to emphasize the importance of these concepts in the psychoeducation part first. Then it may be adequate to use ACT exercises that progress through these concepts. In addition, while mindfulness-based therapies such as MBCT are known to be effective in somatization, it can be said that interventions aimed at the development of mindfulness and psychological flexibility can increase the effectiveness. Moreover, although it is difficult to completely prevent childhood traumas, bringing mindfulness and psychological flexibility skills to children and adults can prevent problems such as somatization by developing coping mechanisms instead of avoidance. In summary, as a new perspective; when working with somatization; It is thought that using techniques including mindfulness, acceptance, psychological flexibility, combining them with other approaches, or making use of approaches that include them might be effective and beneficial in terms of prevention and intervention.

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APPENDIX

Appendix A: Ethics Committee Approval

SAYI : B.30.2.İEÜ.0.05.05-**020**-*120* 03.03.2021

KONU : Etik Kurul Kararı hk.

Sayın İlayda Özdemir,

"Çocukluk Travmaları ve Somatizayon Arasındaki İlişkide; Psikolojik Esneklik, Bilişsel Esneklik, Bilinçli Farkındalık Ve Deneyimsel Kaçınmanın Aracılık Rolleri" başlıklı projenizin etik uygunluğu konusundaki başvurunuz sonuçlanmıştır.

Etik Kurulumuz 25.12.2020 tarihinde sizin başvurunuzun da içinde bulunduğu bir gündemle toplanmış ve projenin incelenmesi için bir alt komisyon oluşturmuştur. Projenizin detayları alt komisyon üyelerine gönderilerek görüş istenmiştir. Üyelerden gelen raporlar doğrultusunda Etik Kurul 03.03.2021 tarihinde tekrar toplanmış ve raporları gözden geçirmiştir.

Sonuçta 03.03.2021 tarih ve 118 numaralı **"Çocukluk Travmaları ve Somatizayon Arasındaki İlişkide; Psikolojik Esneklik, Bilişsel Esneklik, Bilinçli Farkındalık Ve Deneyimsel Kaçınmanın Aracılık Rolleri"** konulu projenizin etik açıdan uygun olduğuna oy birliği ile karar verilmiştir.

Gereği için bilgilerinize sunarım.

Saygılarımla,

[redacted]

Prof. Dr. Murat Bengisu

Etik Kurul Başkanı

Appendix B: Informed Consent Form
Sayın Katılımcı,

Bu çalışma, İzmir Ekonomi Üniversitesi Klinik Psikoloji Yüksek Lisans programı kapsamında, Dr. Öğretim Üyesi Yasemin Meral Öğütçü danışmanlığında, İlayda Özdemir tarafından hazırlanan bir tez çalışmasıdır. Çalışma yaklaşık 25 dakika sürecektir. Çalışmaya katılabilmeniz için 18 yaş ve üzeri olmanız gerekmektedir.

Bu araştırmanın amacı; Somatizasyon, Çocukluk Çağı Travması, Psikolojik ve Bilişsel Esneklik arasındaki ilişkiyi incelemektir.

Araştırmaya katılmak tamamen gönüllülük esasına dayanmaktadır. Araştırmaya katılmama veya katıldıktan sonra istediğiniz herhangi bir anda araştırmadan ayrılma hakkına sahipsinizdir. Araştırmayı yürütürken sizden hiçbir kimlik bilgisi talep edilmeyecektir. Cevaplarınız gizli tutulacak, yalnızca araştırma görevlisi tarafından değerlendirilecektir.
Bu anketten elde edilen sonuçlar, yalnızca bilimsel amaçlar doğrultusunda kullanılacaktır. Ankette bulunan sorulara vereceğiniz yanıtların doğruluğu, araştırmanın niteliği açısından oldukça önemlidir. Lütfen her bir ölçeğin yönergesini dikkatli okuyunuz ve sorulara sizi en iyi ifade eden cevabı vermeye çalışınız.

Katılımınız için teşekkürler.

Herhangi bir sorunuz olursa ilaydaozdemirsez@gmail.com adresine iletebilirsiniz.

Bu çalışmaya tamamen gönüllü olarak katılmayı kabul ediyorum ve verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum.

- ✓ EVET
- ✓ HAYIR

Appendix C: Sociodemographic Form

Cinsiyetiniz;

- Erkek
- Kadın
- Diğer

Yaşınız:…….

En son mezun olduğunuz okul ?

- İlkokul
- Ortaokul
- Lise
- Lisans
- Yüksek Lisans
- Doktora

Medeni Durumunuz;

- Evli
- Bekar
- Boşanmış
- Dul

Çocuğunuz var mı ?

- Evet
- Hayır

İlişkiniz var mı ?

- Evet
- Hayır

Gelir Düzeyiniz ;

- Alt Gelir Grubu
- Ortanın Altı Gelir Grubu
- Orta Gelir Grubu
- Ortanın Üstü Gelir Grubu
- Üst Gelir Grubu

Fiziksel/Kronik bir sağlık sorununuz var mı ?

- Evet
- Hayır

Düzenli kullandığınız bir ilaç var mı?

- Evet
- Hayır

Daha önce psikolojik bir yardım aldınız mı?

- Evet
- Hayır

Appendix D: Somatization Scale

SCL-90Somatizasyon Ölçeği

Aşağıda zaman zaman herkeste olabilecek yakınma ve sorunların bir listesi vardır. Lütfen her birini dikkatlice okuyunuz. Sonra her bir durumun, bugün de dahil olmak üzere son onbeş gün içinde sizi ne ölçüde huzursuz ve tedirgin ettiğini göz önüne alarak, cevap kağıdında belirtilen tanımlamalardan (Hiç / Çok az / Orta derecede / Oldukça fazla / İleri derecede) uygun olanının (yalnızca bir seçeneğin) altındaki kutuya bir (X) işareti koyunuz. Düşüncenizi değiştirirseniz ilk yaptığınız işaretlemeyi tamamen silmeyi unutmayınız. Lütfen anlamadığınız bir cümleyle karşılaştığınızda uygulamacıya danışınız.

	Hiç	**Çok az**	**Orta derece**	**Oldukça fazla**	**İleri derece**
Baygınlık veya baş dönmesi					
Göğüs veya kalp bölgesinde ağrılar					
Belin alt kısmında ağrılar					
Bulantı veya midede rahatsızlık hissi					
Adale (kas) ağrıları					
Nefes almada güçlük					
Soğuk veya sıcak basması					
Bedeninizin bazı kısımlarında uyuşma, karıncalanma olması					
Boğazınıza bir yumru tıkanmış olma hissi					
Bedeninizin çeşitli kısımlarında zayıflık hissi					
Kol ve bacaklarda ağırlık hissi					

Appendix E: Childhood Trauma Questionnaire

Çocukluk Çağı Travmaları Ölçeği

Bu sorular çocukluğunuzda ve ilk gençliğinizde (20 yaşından önce) başınıza gelmiş olabilecek bazı olaylar hakkındadır. Her bir soru için sizin durumunuza uyan rakamı daire içersine alarak işaretleyiniz. Sorulardan bazıları özel yaşamınızla ilgilidir; lütfen elinizden geldiğince gerçeğe uygun yanıt veriniz. Yanıtlarınız gizli tutulacaktır.

1.....2.....3.....4.....5

Hiç bir zaman Nadiren Kimi zaman Sık olarak Çok sık

Çocukluğumda ya da ilk gençliğimde...

	1	2	3	4	5
1.Evde yeterli yemek olmadığından aç kalırdım.					
2.Benim bakımımı ve güvenliğimi üstlenen birinin olduğunu biliyordum.					
3.Ailemdekiler bana "salak", "beceriksiz" ya da "tipsiz" gibi sıfatlarla seslenirlerdi.					
4.Anne ve babam ailelerine bakamayacak kadar sıklıkla sarhoş olur ya da uyuşturucu alırlardı.					
5.Ailemde önemli ve özel biri olduğum duygusunu hissetmeme yardımcı olan biri vardı.					
6.Yırtık, sökük ya da kirli giysiler içersinde dolaşmak zorunda kalırdım.					
7.Sevildiğimi hissediyordum.					
8.Anne ve babamın benim doğmuş olmamı istemediklerini düşünüyordum					
9.Ailemden birisi bana öyle kötü vurmuştu ki doktora ya da hastaneye gitmem gerekmişti.					
10.Ailemde başka türlü olmasını istediğim bir şey yoktu.					
11.Ailemdekiler bana o kadar şiddetle vuruyorlardı ki vücudumda morartı ya da sıyrıklar oluyordu.					
12.Kayış, sopa, kordon ya da başka sert bir cisimle vurularak cezalandırılıyordum					
13.Ailemdekiler birbirlerine ilgi gösterirlerdi.					
14.Ailemdekiler bana kırıcı ya da saldırganca sözler söylerlerdi.					
15.Vücutça kötüye kullanılmış olduğuma (dövülme,itilip kakılma vb.) inanıyorum.					
16.Çocukluğum mükemmeldi					
17.Bana o kadar kötü vuruluyor ya da dövülüyordum ki öğretmen, komşu ya da bir doktorun bunu farkettiği oluyordu.					
18.Ailemde birisi benden nefret ederdi					
19.Ailemdekiler kendilerini birbirlerine yakın hissederlerdi.					
20.Birisi bana cinsel amaçla dokundu ya da kendisine dokunmamı istedi.					
21.Kendisi ile cinsel temas kurmadığım takdirde beni yaralamakla ya da benim hakkımda yalanlar söylemekle tehdit eden birisi vardı.					
22.Benim ailem dünyanın en iyisiydi.					
23.Birisi beni cinsel şeyler yapmaya ya da cinsel şeylere bakmaya zorladı.					

24.Birisi bana cinsel tacizde bulundu					
25.Duygusal bakımdan kötüye kullanılmış olduğuma (hakaret, aşağılama vb.) inanıyorum					
26.İhtiyacım olduğunda beni doktora götürecek birisi vardı.					
27.Cinsel bakımdan kötüye kullanılmış olduğuma inanıyorum.					
28.Ailem benim için bir güç ve destek kaynağı idi.					

Appendix F: Mindfulness Attention Awareness Scale

Mindful Attention Awareness Scale ,
Brown K.W. & Ryan, R.M. (2003),
Catak, P.D. (2011)

Aşağıdaki cümleler günlük yaşantınızla ilgilidir. Cümlelerin altında verilen ölçeği kullanarak, her yaşantıyı ne sıklıkta yaşadığınızı belirtiniz. Lütfen ne olması gerektiğini düşündüğünüz seçeneği değil, gerçekte ne yaşıyorsanız onu işaretleyin. Her cümleyi diğer cümlelerden ayrı olarak, tek başına değerlendirin.

1. Bazı duygular yaşıyor ve bir süre bunun farkına varmamış olabiliyorum.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
2. İtina etmediğimden, dikkatsizlikten ya da o sırada başka bir şey düşündüğümden eşyaları kırdığım ya da etrafa saçtığım olur.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
3. Bir şey olurken, o anda olanlara odaklanmakta güçlük çekerim.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
4. Gideceğim yere yol boyunca yaşadıklarıma dikkat etmeden, hızlıca yürümeye meyilliyimdir.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
5. Gerçekten dikkatimi çekmediği sürece fiziksel gerginlik veya rahatsızlık hislerinin farkına varmam.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
6. Birinin adını neredeyse bana ilk söylendiği anda unuturum.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
7. Ne yaptığımın pek farkında olmadan otomatik yaşıyor gibiyim.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
8. Ne yaptığımın farkında olmadan günlük işlere koştururum.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
9. Başarmak istediğim hedefe öyle odaklanırım ki, ona ulaşmak için o an ne yaptığımın farkına bile varmam.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
10. İşleri veya görevleri otomatik olarak, ne yaptığımın farkına varmadan yaparım.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
11. Kendimi bir kulağımla karşımdakini dinleyip, aynı anda başka bir şey yaparken bulurum.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
12. Arabayı bir yerlere otomatik pilotta gibi sürer, sonra oraya neden gittiğime şaşırırım.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
13. Kendimi, gelecek veya geçmişle uğraşırken bulurum.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
14. Kendimi dikkatimi vermeden bir şeyler yaparken bulurum.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman
15. Ne yediğimin farkında olmadan atıştırırım.					
1 Hemen hemen her zaman	2 Oldukça sık	3 Sık	4 Seyrek	5 Oldukça seyrek	6 Neredeyse hiçbir zaman

Appendix G: Psychological Flexibility Scale

Psikolojik Esneklik Ölçeği

Aşağıda psikolojik esneklik düzeyinizi ölçmeye ilişkin ifadeler yer almaktadır.Sizden, kendi yaşantınızı dikkate alarak aşağıdaki ifadeleri değerlendirmeniz istenmektedir.Her bir maddeye katılma durumunuza göre7 aralıklı ölçek üzerinde, ilgili rakam üzerine çarpı (X) koyarak gösteriniz.

	Hiç Katılmıyorum Tamamen katılıyorum 1---2---3---4---5---6--7	Hiç katılmıyorum						Tamamen katılıyorum
1.	Benim için neyin önemli olduğunu ve hayatımda gelmek istediğim noktayı biliyorum.	1	2	3	4	5	6	7
2.	Duygu ve düşüncelerin ortaya çıkmasını engellemek için bir şeylerle meşgul olmaya çalışırım.	1	2	3	4	5	6	7
3.	Olumsuz duygular hissettiğimde dikkatimi dağıtmaya çalışırım.	1	2	3	4	5	6	7
4.	Duygu ve düşüncelerimi değiştirmeksizin, onları olduğu gibi kabullenebilirim.	1	2	3	4	5	6	7
5.	Zorlayıcı duygu, düşünce veya hisleri ortaya çıkarabilecek durumlardan kaçınmaya çalışırım.	1	2	3	4	5	6	7
6.	Üzüntü verici duyguları uzak tutmak için elimden geleni yaparım.	1	2	3	4	5	6	7
7.	Stresli olsa bile, tercihlerimi benim için neyin önemli olduğuna dayanarak yaparım.	1	2	3	4	5	6	7
8.	İş veya görevlerimi, ne yaptığımın farkında olmaksızın, otomatik bir şekilde yaparım.	1	2	3	4	5	6	7

9.	Yaşamayı seçtiğim önemli değerlere sahibim.	1	2	3	4	5	6	7
10.	Duygu ve düşüncelerimi kontrol etmek yada onlardan kaçınmak yerine, onları olduğu gibi kabul edebilirim.	1	2	3	4	5	6	7
11.	Düşünceler sadece düşüncelerdir-yaptıklarımı kontrol etmezler.	1	2	3	4	5	6	7
12.	Aklıma gelen düşünce, duygu ve hisler ne olursa olsun, onları değiştirmeden ve onlara karşı çıkmadan tam anlamıyla deneyimlemeye razıyım.	1	2	3	4	5	6	7
13.	Kişisel değerlerim doğrultusunda hareket ederim.	1	2	3	4	5	6	7
14.	Düşüncelerime öyle takılırım ki en çok yapmak istediğim şeyleri yapamam.	1	2	3	4	5	6	7
15.	Düşüncelerimin, yapmak istediğim şeyleri engellemesine izin vermem.	1	2	3	4	5	6	7
16.	Yapması zor olsa bile, benim için anlamlı olan şeylerin sorumluluğunu alırım.	1	2	3	4	5	6	7

17.	Kendim hakkındaki bir düşüncemetam olarak uymak zorunda değilim.	1	2	3	4	5	6	7
18.	Ne yaptığımın pek farkında olmadan otomatik hareket ediyormuşum gibi görünür.	1	2	3	4	5	6	7
19.	Hayatta benim için gerçekten önemli olan şeyleri belirler ve onların peşinden giderim.	1	2	3	4	5	6	7
20.	Benim için anlamlı olan etkinlikleri çok dikkatimi vermeden aceleyle yaparım.	1	2	3	4	5	6	7
21.	Bir şey benim için önemli ise onu yapmaya devam edebilirim.	1	2	3	4	5	6	7
22.	Şu anda yaşananlara odaklanmakta zorlanırım.	1	2	3	4	5	6	7
23.	Geçmiş ya da gelecek ile çok meşgul olduğumdan, kendimi şu an olanları kaçırırken bulurum.	1	2	3	4	5	6	7
24.	En büyük hedeflerimden biri bana acı veren duygularımdan kurtulmaktır.	1	2	3	4	5	6	7
25.	Benim için oldukça önemli olsalarda, kendimi, o işi dikkatimi vermeden yaparken bulurum.	1	2	3	4	5	6	7
26.	Değerlerim, davranışlarıma tamamıyla yansır.	1	2	3	4	5	6	7
27.	İlerleme yavaş olsa bile, zaman gerektiren uzun vadeli planlarıma sadık kalabilirim.	1	2	3	4	5	6	7
28.	Hayatımı nasıl yaşamak istediğimle uyumlu bir şekilde hareket ederim.	1	2	3	4	5	6	7

Appendix H: Multidimensional Experiential Avoidance Questionnaire-30

Lütfen aşağıdaki ifadelere ne derecede katıldığınızı değerlendirip sizin için en uygun seçeneğin üzerine çarpı (X) işareti koyunuz.		Kesinlikle Katılmıyorum	Katılmıyorum	Bazen Katılmıyorum	Kararsızım	Bazen [illegible]	Katılıyorum	Kesinlikle
1	Beni rahatsız edeceğini düşündüğüm bir şeyi yapmam.	1	2	3	4	5	6	7
2	Çok küçük bile olsa, beni incitme ihtimali olan faaliyetlerden kaçınırım.	1	2	3	4	5	6	7
3	Eğer kendimi köşeye sıkışmış hissedersem ortamı hemen terk ederim.	1	2	3	4	5	6	7
4	Beni rahatsız etmeye başlayan bir durumda kaldığımda, hemen oradan ayrılmaya çalışırım.	1	2	3	4	5	6	7
5	Gergin hissetme ihtimalim olan durumlardan kaçınırım.	1	2	3	4	5	6	7
6	Eğer sihirli bir şekilde bütün acı veren anılarımı silebilseydim, bunu yapardım.	1	2	3	4	5	6	7
7	Mutluluk; hiçbir zaman acı ya da hayal kırıklığı yaşamamak demektir.	1	2	3	4	5	6	7
8	En büyük hedeflerimden biri acı veren duygulardan kurtulmaktır.	1	2	3	4	5	6	7
9	Daha az stresli hissetmek için her şeyi yaparım.	1	2	3	4	5	6	7
10	Kötü hissetmemek için pek çok şeyden vazgeçebilirim.	1	2	3	4	5	6	7
11	Yapılması gereken ama hoşuma gitmeyen şeyleri erteleme eğilimindeyim.	1	2	3	4	5	6	7
12	Yapmam gereken önemli bir şey olduğunda kendimi onun yerine bir sürü başka şeyi yaparken bulurum.	1	2	3	4	5	6	7
13	Hoşuma gitmeyen işleri olabildiğince ertelemeye çalışırım.	1	2	3	4	5	6	7
14	Kesinlikle yapmam gerekene kadar bir işi yapmam.	1	2	3	4	5	6	7
15	Karşılaştığım sorunları bir an önce halletmeye çalışırım.	1	2	3	4	5	6	7
16	Olumsuz düşünceler aklıma geldiğinde kafamı başka şeylerle meşgul etmeye çalışırım.	1	2	3	4	5	6	7
17	Üzücü hatıralar aklıma geldiğinde başla şeylere odaklanmaya çalışırım.	1	2	3	4	5	6	7
18	Üzüntülü hislerden uzak kalmak için çok çabalarım.	1	2	3	4	5	6	7
19	Tatsız hatıralar aklıma geldiğinde, onları zihnimden çıkarmaya çalışırım.	1	2	3	4	5	6	7
20	Olumsuz bir düşünce aklıma	1	2	3	4	5	6	7

	geldiğinde hemen başka bir şey düşünmeye çalışırım.							
21	Başkalarının bana hislerimi bastırdığımı söylediği olmuştur.	1	2	3	4	5	6	7
22	Ne hissettiğimi bilmek benim için çok zordur.	1	2	3	4	5	6	7
23	Kötü hissettiğimde bunu fark etmem biraz zaman alır.	1	2	3	4	5	6	7
24	Duygularımdan kopuk olduğumu hissederim.	1	2	3	4	5	6	7
25	Başkalarının bana sorunlarımın farkında olmadığımı söylediği olmuştur.	1	2	3	4	5	6	7
26	Rahatsız hissettiğim zaman bile değer verdiğim şeyler için uğraşmaktan vazgeçmem.	1	2	3	4	5	6	7
27	Acı çekiyorken bile yapılması gerekenleri yaparım.	1	2	3	4	5	6	7
28	Acı ve rahatsızlığın istediğim şeyi almamı engellemesine izin vermem.	1	2	3	4	5	6	7
29	İç karartıcı düşüncelerin istediğimi yapmama engel olmasına izin vermem.	1	2	3	4	5	6	7
30	Önemli bir şey üzerinde çalışırken işler zorlaşsa bile vazgeçmem.	1	2	3	4	5	6	7

Appendix I: Cognitive Flexibility Scale

Bilişel Esneklik Ölçeği

BEÖ	Kesinlikle ***Katılıyorum***	Katılıyorum	Kısmen ***Katılıyorum***	Kısmen ***Katılmıyorum***	Katılmıyorum	Kesinlikle ***Katılmıyorum***
1. Bir fikri/düşünceyi birçok farklı biçimde ifade edebilirim.	6	5	4	3	2	1
2. Yeni ve alışık olmadığım durumlardan ***kaçınırım***.	6	5	4	3	2	1
3. Hiçbir zaman, hiçbir konuda karar ***veremeyecekmişim*** gibi hissediyorum. (gelecekle ilgili, alışveriş yaparken, karşı cinsle ilgili vb.)	6	5	4	3	2	1
4. Her duruma uygun davranabilirim.	6	5	4	3	2	1
5. Çözülemeyecek gibi görünen sorunlara işe yarar çözümler bulabilirim.	6	5	4	3	2	1
6. Nasıl davranacağıma karar verirken, farklı bakış açıları ***geliştiremem.***	6	5	4	3	2	1
7. Sorunlara yaratıcı çözümler bulabilirim.	6	5	4	3	2	1
8. Davranışlarım bilinçli kararlılarımın bir sonucudur.	6	5	4	3	2	1
9. Her hangi bir durum karşısında farklı biçimlerde davranabilirim.	6	5	4	3	2	1
10. Sahip olduğum bilgilerimi gerçek hayatımda kullanmakta ***zorlanırım.***	6	5	4	3	2	1
11. Bir problemin üstesinden gelmeye çalışırken çevremdeki kişilerin görüşlerini almak ve bunları değerlendirmek isterim.	6	5	4	3	2	1
12. Bir işi farklı biçimlerde yapmayı deneme konusunda kendime güvenirim.	6	5	4	3	2	1