

**T.C.**  
**BAHCESEHIR UNIVERSITY**  
**GRADUATE SCHOOL OF EDUCATION**  
**THE DEPARTMENT OF CLINICAL PSYCHOLOGY**

**Ş. BİL**

**THE RELATIONSHIP BETWEEN PARENTAL PSYCHOLOGICAL  
MALTREATMENT DURING CHILDHOOD AND ADULTHOOD SOMATIC  
SYMPTOMS THROUGH PSYCHOLOGICAL RESILIENCE**

**MASTER'S THESIS**

**ŞİMAL BİL**

**BAÜ 2023**

**İSTANBUL 2023**

**T.C.**  
**BAHCESEHIR UNIVERSITY**  
**GRADUATE SCHOOL OF EDUCATION**  
**THE DEPARTMENT OF CLINICAL PSYCHOLOGY**

**THE RELATIONSHIP BETWEEN PARENTAL PSYCHOLOGICAL  
MALTREATMENT DURING CHILDHOOD AND ADULTHOOD SOMATIC  
SYMPTOMS THROUGH PSYCHOLOGICAL RESILIENCE**

**MASTER'S THESIS**

**ŞİMAL BİL**

**THESIS ADVISOR**

**DR. ÇİĞDEM KOŞE**

**ISTANBUL 2023**



**T.C.**  
**BAHÇEŞEHİR UNIVERSITY**  
**GRADUATE SCHOOL**

**MASTER THESIS APPROVAL FORM**

<b>Program Name:</b>	Clinical Psychology
<b>Student's Name and Surname:</b>	Şimal Bil
<b>Name of The Thesis:</b>	The Relationship between Parental Psychological Maltreatment during Childhood and Adulthood Somatic Symptoms through Psychological Resilience
<b>Thesis Defense Date</b>	12.06.2023

This thesis has been approved by the Graduate School which has fulfilled the necessary conditions as Master thesis.

.....  
**Director of Institute**

This thesis was read by us, quality and content as a Master's thesis has been seen and accepted as sufficient.

	<b>Title, Name</b>	<b>Institution</b>	<b>Signature</b>
<b>Thesis Advisor:</b>	Dr. Çiğdem Koş	Topkapı University	
<b>2nd Member</b>	Dr. Sadıga Osmanlı Shirolu	Bahçeşehir University	
<b>3rd Member (Outside Institution)</b>	Dr. Pınar Arslantürk	Okan University	

**I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.**

Name, Surname : Şimal Bil

Signature :

## **ABSTRACT**

### **THE RELATIONSHIP BETWEEN PARENTAL PSYCHOLOGICAL MALTREATMENT DURING CHILDHOOD AND ADULTHOOD SOMATIC SYMPTOMS THROUGH PSYCHOLOGICAL RESILIENCE**

Bil, Şimal

Master's Program in Clinical Psychology

Supervisor: Dr. Çiğdem Koş

June, 2023, 90 pages

This thesis deals with the relationship between parental psychological maltreatment in childhood and somatic symptoms in adulthood through psychological resilience. Parental psychological maltreatment is an important topic since its effect is quite detrimental and persistent. As the literature presents, psychological maltreatment in childhood is associated with psychological issues, such as somatic symptoms. Somatic symptoms are quite prevalent, yet the symptoms' psychological sources may be underestimated. Further, psychological resilience has been emphasized with its concept of successful adaptation after challenging circumstances and protection of mental health. According to literature, the relationship between these variables was investigated as a novel study in Turkey. During this investigation, correlation, regression, and mediation analyses were presented. The sample was 332 university students all around Turkey with a mean age of 21.2 (SD = 2.446). This study concludes that family cohesion mediates the relationship between parental undifferentiated rejection and adulthood somatic symptoms, and the relationship between paternal hostility and aggression and adulthood somatic symptoms. Moreover, it is presented that family cohesion mediates the relationship between paternal indifference and neglect and adulthood somatic symptoms. Lastly, perception of self mediates the relationship between paternal undifferentiated rejection and adulthood somatic symptoms. These findings present the importance of parental attitudes and consequently how they have an impact on the family structure while this situation

influences children's well-being in the long run. In addition, the findings show that parental attitudes are also influential on individuals' perception toward themselves, therefore, their well-being.

**Keywords:** Parental Psychological Maltreatment, Somatic Symptoms, Psychological Resilience



## ÖZ

# ÇOCUKLUK DÖNEMİNDE ANNE-BABANIN GÖSTERDİĞİ PSİKOLOJİK ŞİDDET VE YETİŞKİNLİKTE GÖRÜLEN SOMATİK BELİRTİLER ARASINDAKİ İLİŞKİNİN PSİKOLOJİK DAYANIKLILIK ARACILIĞIYLA İNCELENMESİ

Bil, Şimal

Klinik Psikoloji Yüksek Lisans Programı

Tez Danışmanı: Dr. Çiğdem Koşe

Haziran, 2023, 90 sayfa

Bu tez çocuklukta ebeveynlerin gösterdiği psikolojik şiddet ve yetişkinlikteki somatik belirtiler arasındaki ilişkiyi psikolojik sağlamlık aracılığıyla incelemektedir. Anne-babanın uyguladığı psikolojik şiddetin etkisi oldukça yıkıcı ve kalıcı olduğu için önemli bir konudur. Literatürde, çocuklukta maruz kalınan psikolojik şiddet somatik semptomlar gibi psikolojik sorunlarla ilişkilendirilir. Öte yandan psikolojik dayanıklılık, zorlu şartlara başarılı bir şekilde uyum sağlama ve ruh sağlığını koruma kavramlarıyla vurgulanmıştır. Literatür doğrultusunda bu değişkenler arasındaki ilişki, Türkiye'de yeni bir çalışma olarak incelenmiştir. Bu araştırma sırasında korelasyon, regresyon ve aracılık analizleri kullanılmıştır. Örneklem, yaş ortalaması 21.2 (SD = 2.446) olan Türkiye genelinde 332 üniversite öğrencisidir. Bu çalışma, aile uyumunun ebeveyn farklılaşmamış reddi ile yetişkinlikteki somatik semptomlar arasındaki ilişkiye aracılık ettiği ve aile uyumunun baba düşmanlığı ve saldırganlığı ile yetişkinlikteki somatik semptomlar arasındaki ilişkiye aracılık ettiği sonucuna varmaktadır. Dahası, aile uyumu, babanın kayıtsızlığı ve ihmali ile yetişkinlik somatik belirtileri arasındaki ilişkiye aracılık etmiştir. Son olarak, benlik algısı, babanın farklılaşmamış reddi ile yetişkinlik somatik belirtileri arasındaki ilişkiye aracılık etmiştir. Bu bulgular, ebeveyn tutumlarının önemini ve dolayısıyla aile yapısını nasıl etkilediğini ve bu durumun uzun vadede çocukların refahını nasıl etkilediğini ortaya

koymaktadır. Ayrıca bulgular, ebeveyn tutumlarının da bireylerin kendilerine yönelik algıları, dolayısıyla iyi oluşları üzerinde etkili olduğunu göstermektedir.

**Anahtar Kelimeler:** Ebeveyn Psikolojik Şiddet, Somatik Belirtiler, Psikolojik Dayanıklılık



This thesis is dedicated to my parents and those who have always believed in and supported me.



## ACKNOWLEDGMENTS

Firstly, I would like to thank endlessly my thesis advisor Dr. Çiğdem Koşer who shares her knowledge, guidance, and support with me even before the beginning of the thesis process. Her knowledge and guidance provided me to carry out scientific research. Besides, she always mentions the importance of psychological support during this process, and she provided her support to me at every step. I wish to express my gratitude for her guidance, understanding, patience, and support.

I would like to thank all my professors in my undergraduate and graduate education for inspiring and encouraging me to keep on this path.

I owe my gratitude to my family, especially my parents Yeşim Bil, and Altuğ Bil who always believed in me, supported me in my goals, and helped me find my own path by doing their best. I have always felt their unconditional love and trust, and I am grateful to them for all their efforts.

I would like to thank Utku Durmuş who showed his sincere support, understanding, and optimism from the beginning of my graduate education. I thank him for all his efforts to help me, for listening to me, and for always being with me.

Lastly, I would like to thank my friends for their support and encouragement. I am grateful for their presence.

## TABLE OF CONTENTS

ETHICAL CONDUCT.....	iii
ABSTRACT.....	iv
ÖZ.....	vi
DEDICATION.....	viii
ACKNOWLEDGMENTS.....	ix
TABLE OF CONTENTS.....	x
LIST OF TABLES.....	xiii
LIST OF FIGURES.....	xv
LIST OF SYMBOLS/ABBREVIATIONS.....	xvi
Chapter 1: Introduction.....	1
1.1 Statement of the Problem.....	1
1.2 Purpose of the Study .....	4
1.3 Hypotheses .....	4
1.4 Significance of the Study .....	6
1.5 Definitions.....	6
Chapter 2: Literature Review.....	8
2.1 Parental Psychological Maltreatment during Childhood.....	8
2.1.1 Interpersonal Acceptance-Rejection Theory.....	10
2.2 Adulthood Somatic Symptoms.....	15
2.3 The Relationship between Parental Psychological Maltreatment and Somatic Symptoms.....	19
2.4 Psychological Resilience.....	22
2.5 The Relationship between Psychological Resilience and Parental Psychological Maltreatment.....	27
2.6 The Relationship between Psychological Resilience and Somatic Symptoms .....	29
2.7 The Relationship between Parental Psychological Maltreatment, Somatic Symptoms, and Psychological Resilience.....	31
Chapter 3: Methodology.....	33
3.1 Research Design.....	33
3.2 Participants.....	33
3.3 Data Collection.....	37

3.3.1 Data Collection Instruments.....	37
3.3.1.1 Demographic Information Form.....	37
3.3.1.2 Resilience Scale for Adults (RSA).....	37
3.3.1.3 Parental Acceptance-Rejection Questionnaire.....	39
3.3.1.4 Bradford Somatic Inventory-44 (BSI-44).....	40
3.3.2 Data Collection Procedures.....	41
3.3.3 Data Analysis Procedures.....	41
3.3.4 Reliability and Validity.....	43
3.4 Limitations.....	45
Chapter 4: Findings.....	48
4.1 Descriptive Statistics.....	48
4.2 Correlation Analysis.....	49
4.3 Group Differences.....	52
4.4 Regression Analyses.....	55
4.5 Mediation Analyses.....	63
Chapter 5: Discussion and Conclusions.....	77
5.1 Discussion of Findings of Research Questions.....	77
5.1.1 Discussion on Main Variables.....	77
5.1.2 Discussion on Demographic Information.....	84
5.2 Conclusions.....	87
5.3 Recommendations.....	88
REFERENCES.....	91
APPENDICES.....	
A. Demographic Information Form.....	118
B. Resilience Scale for Adults (RSA).....	121
C. Parental Acceptance-Rejection Questionnaire (PARQ).....	122
D. Bradford Somatic Inventory-44 (BSI-44).....	126
E. Bahçeşehir University Scientific Research and Publication Ethics Committee Approval.....	130
F. Informed Consent.....	131

## LIST OF TABLES

### TABLES

Table 1 Descriptive Statistics of the Demographic Characteristics.....	35
Table 2 Frequency Distribution of the Demographic Characteristics.....	35
Table 3 Internal Consistencies.....	43
Table 4 Goodness of Fit Measures.....	45
Table 5 Mean, SD, Min., and Max. Values of PARQ Mother, PARQ Father, RSA, and BSI-44.....	48
Table 6 Pearson Correlations between the Scales of PARQ Mother, PARQ Father, RSA, and BSI-44.....	50
Table 7 Pearson Correlations between the subscales of PARQ Mother and RSA....	50
Table 8 Pearson Correlations between the subscales of PARQ Father and RSA....	51
Table 9 Pearson Correlations between the subscales of PARQ Mother and PARQ Father.....	52
Table 10 Demographic Differences in Adulthood Somatic Symptoms.....	54
Table 11 Parental Psychological Maltreatment Predicted Adulthood Somatic Symptoms.....	59
Table 12 Parental Psychological Maltreatment Predicted Psychological Resilience	59
Table 13 Psychological Resilience predicted Adulthood Somatic Symptoms.....	60
Table 14 The Mediator Role of Family Cohesion on the Relationship between Maternal Undifferentiated Rejection and Adulthood Somatic Symptoms.....	66
Table 15 The Mediator Role of Family Cohesion on the Relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms.....	68
Table 16 The Mediator Role of Family Cohesion on the Relationship between Paternal Hostility and Aggression and Adulthood Somatic Symptoms.....	70
Table 17 The Mediator Role of Family Cohesion on the Relationship between Paternal Indifference and Neglect and Adulthood Somatic Symptoms.....	71
Table 18 The Mediator Role of Family Cohesion on the Relationship between Maternal Hostility and Aggression and Adulthood Somatic Symptoms.....	73
Table 19 The Mediator Role of Perception of Self on the Relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms.....	75

## LIST OF FIGURES

### FIGURES

Figure 1 The Proposed Model for the Mediator Role of Psychological Resilience on the Relationship between Parental Psychological Maltreatment during Childhood and Adulthood Somatic Symptoms.....	5
Figure 2 The Warmth Dimension of Interpersonal Relationships (Rohner, 2021)....	11
Figure 3 The Mediator Role of Family Cohesion on the Relationship between Maternal Undifferentiated Rejection and Adulthood Somatic Symptoms.....	66
Figure 4 The Mediator Role of Family Cohesion on the Relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms.....	68
Figure 5 The Mediator Role of Family Cohesion on the Relationship between Paternal Hostility and Aggression and Adulthood Somatic Symptoms.....	69
Figure 6 The Mediator Role of Family Cohesion on the Relationship between Paternal Indifference and Neglect and Adulthood Somatic Symptoms.....	71
Figure 7 The Mediator Role of Family Cohesion on the Relationship between Maternal Hostility and Aggression and Adulthood Somatic Symptoms.....	73
Figure 8 The Mediator Role of Perception of Self on the Relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms.....	75

## LIST OF SYMBOLS/ABBREVIATIONS

$\alpha$	Alpha
ACE	Adverse Childhood Experience
APSAC	American Professional Society on the Abuse of Children
$\beta$	Beta Coefficient
B	Unstandardized Beta
BSI	Bradford Somatic Inventory
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CI	Confidence Interval
df	Degrees of Freedom
DSM	Diagnostic and Statistical Manual of Mental Disorders
F	F-Statistics
FSS	Functional Somatic Syndrome
IBS	Irritable Bowel Syndrome
IPARTheory	Interpersonal Acceptance-Rejection Theory
L	Lower
M	Mean
Max.	Maximum
M. H. A.	Maternal Hostility and Aggression
Min.	Minimum
M. U. R.	Maternal Undifferentiated Rejection
N	Sample Size
$p$	Probability
PARQ	Parental Acceptance-Rejection Questionnaire

P. H. A.	Paternal Hostility and Aggression
PM	Psychological Maltreatment
P. I. N.	Paternal Indifference and Neglect
P. U. R.	Paternal Undifferentiated Rejection
<i>r</i>	Pearson Correlation
R <sup>2</sup>	R Square
ΔR <sup>2</sup>	Adjusted R Square
RMSEA	Root Mean Square Error of Approximation
RSA	Resilience Scale for Adults
SD	Standard Deviation
SE	Standardized Error
SSD	Somatic Symptom Disorder
SRMR	Standardized Root Mean Square Residual
SPSS	Statistical Package for the Social Sciences
t	t statistic
TLI	Tucker-Lewis Index
U	Upper
VIF	Variance Inflation Factor
WHO	World Health Organization
x <sup>2</sup>	Chi-Square
x <sup>2</sup> /df	Chi-Square /Degrees of Freedom

# Chapter 1

## Introduction

In the first chapter of this research, statement of the problem, purpose of the study, hypotheses, significance of the study, and finally definitions for the variables that are measured in the study are provided respectively.

### 1.1 Statement of the Problem

It was reported that approximately 3 out of 4 children who are 2-4 years old routinely subject to physical abuse and/or psychological abuse by their caregivers (WHO, 2022), and family members were found to be the main perpetrators of child maltreatment (Finkelhor, Ormrod, Turner & Hamby, 2005). According to the study of Unicef Child Abuse and Domestic Violence in Turkey (2010), 56% of children aged between 7-18 children reported that they witnessed physical abuse, 49% of them witnessed psychological abuse and 10% of them witnessed sexual abuse within the last year. They witnessed psychological abuse both at home and outside. Furthermore, 51% of the same children were exposed to psychological abuse, 43% of them were exposed to physical abuse, 25% of them were subjected to neglect, and 3% of them were subjected to sexual abuse within the last year. Some of the academicians who study domestic violence defend that domestic violence passes on from generation to generation through social learning. Namely, domestic violence is observed and learned within the family and transmitted to other members (Özgentürk, Karğın & Baltacı, 2012). According to previous studies, children with the experience of any kind of abuse generally become the victim of other kinds of abuse (Briere, & Runtz, 1988; Finkelhor et al., 2005; Gilbert, Widom, Browne, Fergusson, Webb & Janson, 2009; WHO 2006). In addition to the co-occurrence of types of maltreatment, prioritizing other types of maltreatment also prevents psychological abuse to be recognized (Dinleyici & Şahin Dağlı, 2016). Considering the findings, any kind of violence in Turkey is a serious issue, and contributing to the literature by examining psychological maltreatment in childhood in Turkey is a crucial aspect to help identify its components and create awareness in the community. Moreover, investigating exposure to parental

psychological maltreatment in childhood has an important role in understanding the roots of one's current mental status.

Child maltreatment is perceived as one of the aspects that ought to be taken into consideration when evaluating a person's medical history since individuals who have been exposed to childhood abuse are more likely to have health issues that lead to hospitalization (Moeller, & Bachmann, 1993). In the course of earlier childhood, extreme levels of stress arousal in a person's body switch mental and physiological capacities from prolonged development to instant survival. Further, it restricts long-lasting biological sources in the brain and different structures to damage of person's health (Shonkoff, 2016). It was indicated that maltreatment during the early years of life is a significant jeopardy in terms of developing various bodily symptoms in the future (Arnou, 2004). In eastern Turkey, it was found that women who are vastly exposed to traumatic stress during childhood and/or adulthood showed diversified somatic signs and these symptoms were found to be correlated with major depressive disorder and constant accumulative trauma (Taycan, Sar, Celik & Erdogan-Taycan, 2014). Crucially, a history of emotional neglect may enhance the possibility of having chronic pain nearly four times among individuals with depression. In addition, exposure to emotional neglect at an early age may increase the risk of having comorbidity for depression and chronic pain (Macedo, von Werne Baes, Menezes & Juruena, 2019). In different studies, it was remarked that the most prevalent cause for doctor appointments consists of somatic symptoms (Katon, Kleinman & Rosen, 1982; Khan, Khan, Harezlak, Tu & Kroenke, 2003; Rief, & Martin, 2014) yet patients with bodily symptoms are rarely seen in mental health institutions (American Psychiatric Association, 2022; Henningsen, Zipfel, Sattel & Creed, 2018). This was hypothesized that other than psychiatrists, the reason why medical practitioners take a considerable part in mental health cases is they frequently explore psychological problems within the patients during the treatment of their bodily complaints (Schurman, Kramer & Mitchell, 1985). Generally, individuals with somatic symptoms do not comprehend or may ignore the association between their condition of suffering and the possible source of the issue. Namely, they react somatically, instead of psychologically, and they are apt to perceive their suffering as signs of physical diseases. Therefore, they may seek medical support (Lipowski, 1988). This may be understood through the perspective that even though the term health includes both body and mind, the health of the body

has aspects that are concrete and visible while mental health contains more abstract aspects, and this creates an obstacle to emphasizing both parts equally (Uğurlu & Soydal, 2004). Under these circumstances, examining the relationship between childhood parental psychological maltreatment and the current somatic symptoms of individuals may be beneficial to shed light on the aspects that influence bodily complaints.

Since psychological resilience gives promise about efficient impediments of serious consequences of traumatic events, the concept is spotlighted (Rutter, 1995). It is important to note that encountering adversities and getting through problems are natural. Moreover, since resilience cannot be boosted by avoiding stress, effective coping with tense circumstances may provide power (Rutter, 1985). This may be understood as people may acquire sources, connections, and successful coping abilities for subsequent events when they expose to early difficulties (Graber, Pichon & Carabine, 2015). In the light of the sources that are concerned with resilience in youths, resilience concentrates on the constructive development of young individuals while encountering possible dangers and gives a theoretical idea to comprehend despite the probability of adverse outcomes, how certain youths become wholesome individuals in the future (Garmezy, 1991; Rutter, 1987; Masten, Best & Garmezy, 1990). As indicated, the first graduate study that examined psychological resilience in Turkey was done in 2005 (Özcan, 2005) and the highest number of theses on this subject were published between 2016-2020. It was signified that resilience research started late in Turkey and the years in which this subject was most researched were interpreted as including rapid changes in life such as developments, crises, and epidemics, which are perceived as the risk factors of resilience (Akfirat & Özsoy, 2021).

It should be noted that stresses and challenges are not casually handed out in society, rather, some youths are exposed to more calamities while the rest of the young individuals encounter less burden (Rutter, 1995). Parents' manners have a significant role in attaching child and family resilience theory and studies (Masten, 2018). In Turkey, it was indicated that psychological resilience mediated the relationship between mothers' and fathers' accepting and rejecting attitudes and depression among women. Namely, psychological resilience decreased the signs of depression among women university students (Sart, Börkan, Erkman & Serbest, 2016). Childhood

maltreatment is related to several mental health issues in adulthood, yet, not all maltreated individuals develop a psychological disorder as the findings of a 30-year follow-up study demonstrated. These individuals who did not develop any disorder were related to the concept of resilience (Collishaw, Pickles, Messer, Rutter, Shearer & Maughan, 2007). Moreover, it was shown that an increased degree of psychological resilience is related to a diminished degree of clinical pain and functional limitations (Tanner et al., 2021). In this sense, examining the mediating role of psychological resilience between childhood psychological maltreatment and adulthood somatic symptoms in Turkey may be beneficial to help enhance awareness for individuals with challenging experiences to protect themselves from adverse consequences.

## **1.2 Purpose of the Study**

The purpose of the present quantitative study is to explore the relationship between parental psychological maltreatment during childhood and current somatic symptoms through the mediating role of psychological resilience among university students aged between 18-30 in Turkey. The current study will mainly examine a) the relationship between parental psychological maltreatment during childhood (predictor variable), psychological resilience (mediator variable), and adulthood somatic symptoms (criterion variable), b) the mediator role of psychological resilience on the relationship between parental psychological maltreatment during childhood and adulthood somatic symptoms, c) the mediator role of family cohesion on the relationship between parental undifferentiated rejection and adulthood somatic symptoms. Moreover, demographic variables of age, gender, places mostly lived, income level, relationship status, having a trusted one, receiving psychotherapy, smoking, having a chronic illness, using psychiatric medication, and mental disorder diagnosis are also investigated in the study.

## **1.3 Hypotheses**

The main hypotheses in the current study are provided below and the proposed model for the mediator role of psychological resilience on the relationship between parental psychological maltreatment during childhood and adulthood somatic symptoms is shown in Figure 1.

(H<sub>1</sub>) Parental psychological maltreatment during childhood will positively predict adulthood somatic symptoms.

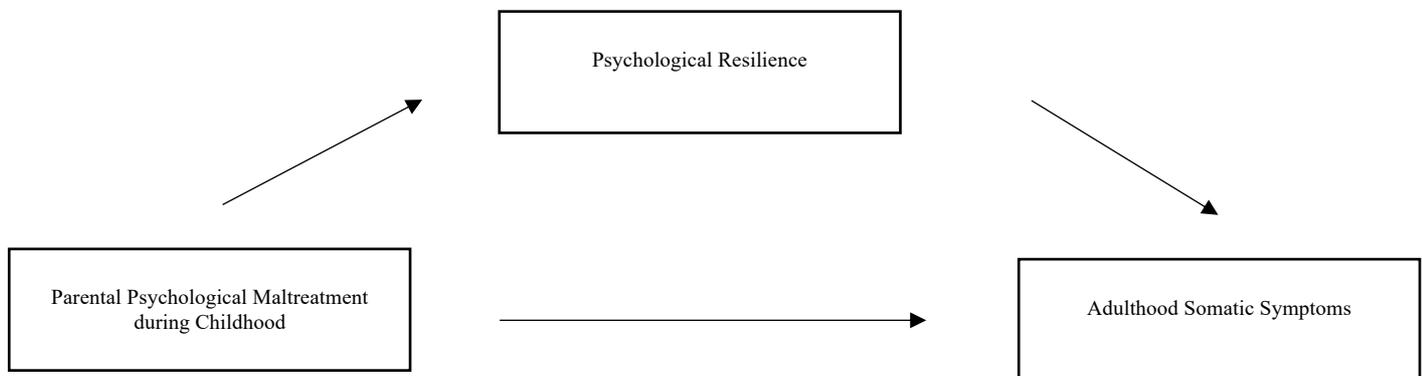
(H<sub>2</sub>) Psychological resilience will negatively predict adulthood somatic symptoms.

(H<sub>3</sub>) Psychological resilience will mediate the relationship between parental psychological maltreatment during childhood and adulthood somatic symptoms.

(H<sub>4</sub>) There will be a significant relationship between parental psychological maltreatment during childhood, psychological resilience, and adulthood somatic symptoms.

(H<sub>5</sub>) Parental psychological maltreatment will negatively predict the level of psychological resilience.

(H<sub>6</sub>) Family cohesion, the subdimension of psychological resilience, will mediate the relationship between parental undifferentiated rejection, the subdimension of parental psychological maltreatment, and adulthood somatic symptoms.



*Figure 1.* The Proposed Model for the Mediator Role of Psychological Resilience on the Relationship between Parental Psychological Maltreatment during Childhood and Adulthood Somatic Symptoms.

## 1.4 Significance of the Study

In Turkey, some previous studies investigated the dual relationships between parental psychological maltreatment, somatic symptoms, and psychological resilience. However, the topic of the current study has not been examined specifically. Psychological maltreatment may not be as visible as other types of maltreatment, but the consequences are sometimes greater than the rest. Considering the prevalence of parental psychological maltreatment toward children in Turkey, examining this issue retrospectively may contribute to individuals' perspectives in terms of understanding parental psychological maltreatment and breaking this cycle. Furthermore, as a novel national study, investigating parental psychological maltreatment's relationships with current somatic symptoms and the mediator role of psychological resilience is important for the literature to fill the gap. Also, demonstrating a link between parental psychological maltreatment and current somatic symptoms may be beneficial to provide awareness about bodily complaints. Moreover, since psychological resilience is not a deep-rooted concept in Turkey, contributing to the literature by examining this topic as psychological resilience's mediator role in the relationship between parental psychological maltreatment and somatic symptoms is necessary to provide a perspective for further studies, interventions, and treatments which may focus on the enhancement of psychological resilience of individuals.

## 1.5 Definitions

Definitions for the main variables of this study are provided in this part.

**1.5.1 Definition of psychological maltreatment.** Emotional abuse and neglect are also used to refer to psychological maltreatment. The term defines the parent-child relationship, and this relationship is truly or possibly damaging for a child in terms of their psychological well-being and development. Moreover, it contains acts of omission and commission toward a child (Glaser, 2002).

**1.5.2 Definition of somatic symptoms.** As a dictionary term, somatic refers to deriving from the body (APA, n.d.), and somatization is the way of physically expressing the psychologically experienced disturbance (APA, n.d). Somatization is

perceived as feeling and interacting with somatic distress and symptoms and individuals are apt to interpret bodily distress and symptoms as physical illness and look for medical support for them. Moreover, this issue is frequently related to depression and anxiety (Lipowski, 1988).

**1.5.3 Definition of psychological resilience.** In the light of an investigation of various studies that present a definition of psychological resilience, it may be said that psychological resilience is the capability of constructive adjustment to the circumstances, and it is an active process. This process includes a kind of adjusting functioning that enables individuals to encounter adversities by gaining primary balance or recuperating as a chance for growth (Sisto, Vicinanza, Campanozzi, Ricci, Tartaglino & Tambone, 2019).

## **Chapter 2**

### **Literature Review**

In this chapter, the literature review includes studies and theories of parental psychological maltreatment, adulthood somatic symptoms, and psychological resilience. Previous studies for the relationship between three of these variables are provided.

#### **2.1 Parental Psychological Maltreatment during Childhood**

Adverse childhood experiences (ACEs) are traumatic experiences that may create permanent unfavorable consequences on one's wellness (Boullier & Blair, 2018) and the period of ACEs includes ages 0 to 18 years (Ports, Ford, Merrick, & Guinn, 2020). In different research, psychological/emotional abuse (Dube, Anda, Felitti, Chapman, Williamson & Giles, 2001; Felitti et al., 1998; Masuda et al., 2007) and neglect (Boullier & Blair, 2018) is examined as a type of ACEs. According to O'Hagan (1995), psychological abuse is consistent and recurring behaviors that disrupt or prevent the development of significant mental processes. On the other hand, he mentioned that caregivers' recurring improper responses to the child's emotions may lead to emotional abuse. Nevertheless, as Glaser (2002) stated, the differentiation of cognition and emotion may not be beneficial. Considering the interrelatedness of the concepts, experiences' cognitive assessment contributes to the emotional experience and contrariwise. This study benefited from both the terms of psychological and emotional abuse while investigating parental attitudes toward their children.

As Claussen and Crittenden (1991) stated, the obstacle to investigating psychological maltreatment is because of its description and evaluation. According to the American Professional Society on the Abuse of Children (APSAC) (1995), description of childhood maltreatment is related to abuse and neglect and, further, psychological maltreatment (PM) refers to parent's continuous attitudes or severe event(s) that sends signals to a child that they have no value, they are not loved, they are rejected, they are in jeopardy or they are valuable only if they please others. Moreover, PM consists of acts of commission and omission (APSAC, 1995; Claussen

& Crittenden, 1991). Acts of commission may be explained as verbal or apparent acts which include physical, sexual, and psychological abuses while acts of omission are the caregiver's failure to meet the primary needs of the child or guard the child from any actual or possible damage. Acts of omission may lead to physically, emotionally, and educationally neglecting the child when their primary needs are not met. Furthermore, these actions may lead to insufficient care, or encountering severe situations when a child is not guarded by a caregiver (Leeb, Paulozzi, Melanson, Simon & Arias, 2008). In the report of Unicef Child Abuse and Domestic Violence in Turkey (2010), notwithstanding age, gender, or district, all children in the study declared that they are abused respectively at home, in school, and outside. In the research, it was found that girls aged between seven to fourteen declared that they were exposed to emotional maltreatment respectively by peers, teachers, fathers, and mothers, boys, on the other hand, mentioned that their emotional abusers are chiefly teachers, peers, and fathers. Older girls aged between fifteen to eighteen reported that their emotional abusers are their teachers and mothers while boys of the same age reported them as peers and fathers. Moreover, in Turkey, common types of emotional maltreatment were found as insulting, teasing, menacing, shouting, not asking the child's point of view, pressurizing, humiliating, blaming, and comparing with others.

In the research of Egeland, Sroufe, and Erickson (1983), four different maltreatment (physical abuse, verbal abuse, psychological unavailability, and neglect) were analyzed until the preschool ages of young children. The observations showed that other maltreatment can be seen together with physical abuse. Similarly, in Adverse Childhood Experiences Study, it was concluded that most of the children who experienced one type of maltreatment or household dysfunction experienced another type of maltreatment or household dysfunction as well (Felitti et al., 1998). Yet, As Glaser (2002) indicated, in some cases, emotional abuse and neglect may occur separately from any type of maltreatment. Glaser identified the distinction between the categories of sexual, physical, and emotional abuse and neglect during childhood. It was indicated that abusive behavior is generally apparent in emotional maltreatment and neglect while it is covered in sexual, and sometimes in physical maltreatment. Furthermore, in contrast to sexual abuse, the abuser is familiar in emotional maltreatment and neglect, and the person can be familiar in physical abuse. Crucially, the victimizer and primary caregiver are the same person in emotional maltreatment

and neglect while these may be different people in sexual and sometimes in physical maltreatment. Lastly, emotional maltreatment and neglect uncommonly end up with prompt protection in contrast to sexual and physical abuse.

According to Mulryan, Cathers, and Fagin (2000), while defining the child maltreatment risk factors, the features of the family may not be strict since this issue may be seen in all ethnicities, cultures, races, and socioeconomic statuses. However, some specific adult attitudes and adversities in the environment are prevalent in cases. It was declared that a lot of abusive caregivers have poor self-esteem, are impulsive, and are not mature. On the other hand, adversities such as issues about work, poverty, health problems, spousal problems, and domestic violence may lead to abuse or neglect the child. According to Child Abuse Research Report, some of the familial risk factors for child abuse include conflicts and violence between parents, the mother's difficulty in bonding with the child, using physical violence as a disciplinary technique, stress on parents, communication problems within the family, difficulties in financial issues in the family, using the child for parents' benefit, and unrealistic parental expectations from the child. Moreover, environmental risk factors such as socioeconomic level, social isolation, poverty, the existence of a man other than the biological father at home, living in an area with a high crime rate, and the absence of one or both parents are also prominent reasons for child abuse (Kuruca, Özer, Kaplan & Tüysüz, 2019).

**2.1.1 Interpersonal acceptance-rejection theory.** This research benefited from the Interpersonal Acceptance-Rejection Theory (IPARTheory) during the examination of parental attitudes in childhood psychological maltreatment. The IPARTheory emerged from the Parental Acceptance-Rejection Theory (PARTheory), which was developed by Rohner. In 2014, IPARTheory became the new name of the theory since it covers not only parent-child but also other intimate relations in adulthood (Rohner, 2016). The theory has personality subtheory, coping subtheory, and sociocultural systems model and subtheory (Rohner, 2021). According to IPARTheory, interpersonal acceptance and rejection between parent and child, romantic partners, peers, and others are constituted the warmth dimension of mutual relation (Figure 2). This dimension, which is related to the kind of affectional connection among people, concentrates on the physical, verbal, and symbolic acts people display when they accept or reject others. One point of the dimension represents

interpersonal acceptance with its warmth, affection, and care which the person may show to the other. This point includes the physical part such as kissing and cuddling, the verbal part such as appreciating and saying pleasant things, and also the symbolic part which may be shown through culturally based expressions. On the other hand, the other point of the dimension indicates interpersonal rejection; unavailability, or removal of constructive emotions. This point includes psychological and physical destructive acts and emotions. Furthermore, interpersonal rejection may occur as different mixtures of (1) cold and uncaring, which may reveal two parts such as physical withdrawal of kissing and hugging, and verbal withdrawal of praising and saying pleasant things (2) hostile and aggressive, which may occur in two ways as physically harming and verbally saying brutal things and yelling (3) indifference and neglect, which may be explained as caregiver’s psychological and physical inaccessibility, and recklessness of child’s needs, and (4) undifferentiated rejecting, which may be thought as the child’s feeling that the caregiver does not love, or does not value them although there are no apparent signs. Moreover, as Rohner indicated, it is vital to declare that people are not entirely accepted or rejected; instead, they experience different levels of caring and uncaring within their interpersonal relations (Rohner, 2021).

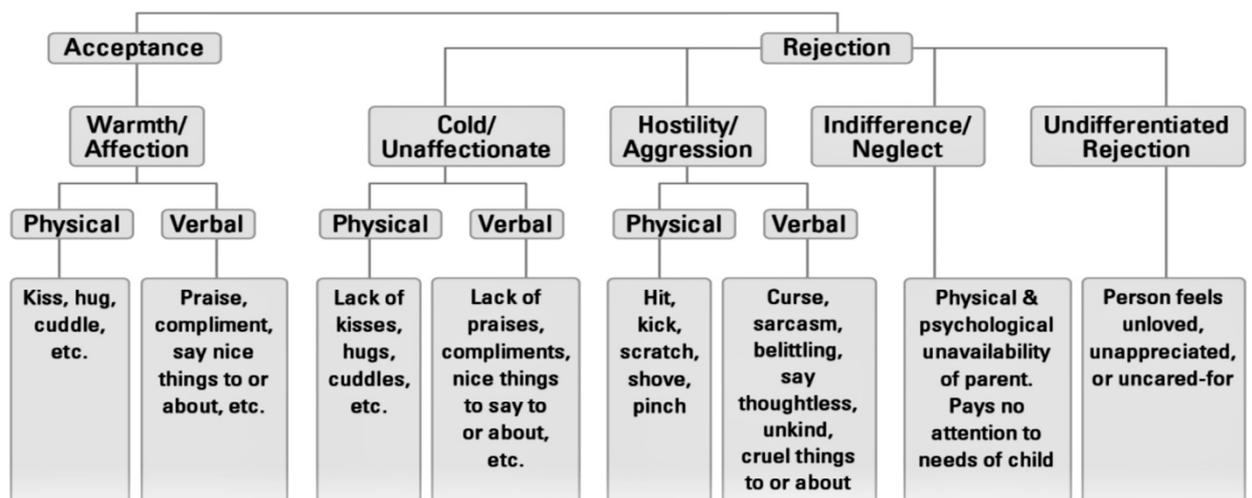


Figure 2. The warmth dimension of interpersonal relationships (Rohner, 2021).

Personality subtheory focuses on the psychological outcomes of one’s acceptance or rejection in a relationship, particularly, the relationship between parent and child. A person’s state of mind may be considered highly related to the kind of

emotional relationship that they experience with significant one (Rohner, 2021). The significant one, the one that the person creates enduring affectional tie with, is accepted as an attachment figure (Rohner, 2005). According to Ainsworth (1989), although there are other significant ones, the attachment figure cannot be completely changed with any other one. Moreover, compared to significant ones, there may be an important additional quality that attachment figures have; a person's emotional tie with attachment figures includes looking for and yearning for emotional closeness, which brings safe and comfort to the relationship.

In this subtheory, the definition of personality includes both one's relatively permanent dispositions which come from internal motives to react, and one's observable reactions in different circumstances, generally, both dispositions and actions demonstrate consistency and pattern over time (Rohner, 2005, 2021). This may infer that actions are affected by both internal such as emotional, and biological and external such as environmental aspects, and since the parents are accepted as incomparably significant for a child, the tendency of the parent's attitude as accepting or rejecting has crucial impacts on forming child's personality and psychological progress (Rohner, 2021). In accordance with the subtheory, a child's affective needs contain a constructive reaction from significant ones and attachment figures. Yet, when this need is not met sufficiently, the child may adopt particular emotional and behavioral reactions. The personality subtheory explained these as a child dependence continuum with three different aspects; normal dependence, immature dependence, and defensive independence. In the continuum, one side represents dependence while the other side stands for independence (Rohner, 2021). The term dependence may be explained as the internally experienced desire for affective positive reactions such as concern and care from significant ones. Moreover, in the theory, the term represents the person's observable actions that they perform to receive these reactions (Rohner, 2005). A person with a feeling of being rejected by an important one may tend to be anxious. To overcome the rejection and meet affective needs, the person may be dependent (Rohner, 2021). Adversely, independence refers to being comparatively free from the feeling of need for positive reactions. How frequently and how strongly the need is felt creates the difference between dependent and independent individuals (Rohner, 2005). The caregiver's high degree of care and interfering behavioral dominance may lead the child to develop immature dependence. This may prevent the

child to gain the perception of developmentally proper competence and a rational perspective about their limits. On the other hand, significant ones' or attachment figures' rejection may lead the child to develop defensive independence; they demonstrate comparably fewer actions in order to gain positive reactions, yet they pursue their intense desire for affection. Besides these concepts, people who perceived themselves as rejected may not gain a proper sense of self-esteem and self-adequacy. Perception of being rejected may lead to a decrease in one's capability for coping with stress adequately and may lead one to experience difficulty in regulating their emotions (Rohner, 2021).

The second subtheory is the coping subtheory which concentrates on how some individuals handle daily rejection without experiencing adverse mental health problems. This subtheory divides copers into two categories as affective and instrumentals (Rohner, 2021). Affective copers are grown up with caregivers who are rejecting them, but their psychological health is fairly good. Namely, they are majorly capable of avoiding damaging psychological influences of being rejected. Furthermore, instrumental copers are also rejected individuals and they show good performance in school or job. However, unlike affective copers, they experience mental health problems as a result of being rejected by attachment figures (Rohner, 2005, 2021). It is defended that one's ability to cope with perceived rejection is related to the extent of their distinct self-differentiation, which includes one's capacity to recognize others' feelings and beliefs and separate them from own feelings and beliefs. On the other hand, it is also supported that self-determination is an important concept that one has while dealing with rejection better. People with a sense of self-determination accept that even though they do not have the power to change all, they are able to have a bit of effect on events through their endeavors or personal characteristics whereas others believe that events occur through destiny or powerful others. It is thought that self-determined people have an inner psychological system to diminish negative outcomes of rejection, Correspondingly, one's ability of depersonalizing supports the person to cope with perceived rejection (Rohner, 2021). As the opposite meaning, personalization stands for egocentric perception; it refers to automatically thinking events are connected with the person and explaining these events from the viewpoint of themselves, mostly in unfavorable ways (Rohner, 2005). Adversely, people with the ability of depersonalization have a psychological system

that provides to cope with the uncertainties in mutual relations with more constructive manners. In the theory, it is indicated that these abilities support the person to develop a psychological shield that protects the person from the hurtful consequences of rejection (Rohner, 2021).

As it was indicated in the third subtheory, the sociocultural systems model and subtheory, acceptance and rejection in mutual relations reveal in the manifold framework which contains ancestral, societal, and sociocultural aspects. In this perspective, this model and subtheory tries to anticipate and describe universal reasons for accepting and rejecting attitudes of parents (Rohner, 2021). These attempts create the question of why some parents adopt loving and caring attitudes while the rest behave in a more aggressive and neglectful way toward their children (Rohner, 2016). The sociocultural systems model defends that, parental behavior is influenced by maintenance systems of the community such as familial attitude, domestic organization, financial system, and the rest of the organizations which pertain to the survival of a culturally formed community in their natural environment. Moreover, as in the personality subtheory, it indicates that parental behaviors, including acceptance and rejection, fairly influence the personality development of the child. Correspondingly, the model proposes that the traits of the child markedly influence the manner of parental behaviors (Rohner, 2021). Also, the sociocultural systems model and subtheory asks how the community and the people's attitudes and beliefs are influenced by the parental attitudes of accepting and rejecting (Rohner, 2016). Besides familial relations, the person acquires diverse affecting experiences (intervening developmental experiences) through their surroundings, maintenance systems of the community, peers, and others in the community, and the institutionalized expressive systems of the community (Rohner, 2021). According to the subtheory, the term institutionalized expressive systems indicates pervasive, yet nonsurvival characteristics of the community (Rohner, 2005). Religious rituals, aesthetic and musical choices, humor types, and different symbolic beliefs and attitudes may be given as examples of these characteristics (Rohner, 2005; 2021). Humor style is found to be related to parents' love and withdrawal of love toward a child (Kazarian, Moghnie, & Martin, 2010), similarly, the theory defends that individuals' religious rituals, aesthetic choices, and other symbolic beliefs are likely to be related to

childhood period experiences of parental accepting and rejecting attitudes (Rohner, 2016).

## **2.2 Adulthood Somatic Symptoms**

Kellner indicated that the description of the term somatization varies (1994). From psychiatric perspective, Lipowski (1988) mentioned that somatization occurs as a reaction to psychosocial stress and this situation includes experiencing bodily discomfort, which leads individuals to suffer (Kellner, 1990). Also, Silber (2011) argued that somatization is not an innate act. Yet, it is acquired through realizing that somatic symptoms are recognized with less effort or welcomed better than demonstrating feelings of anxiety, envy, and anger. From psychoanalytical perspective, Freud (1894) mentioned that in hysteria, incongruous thought is converted to somatic demonstration, therefore, the conversion that he referred to, leads the thought to become harmless for an individual. However, the thought that was repressed remains a mark in memory. On the other hand, MacAlpine (1952) explained psychosomatic symptom as primitive, covered, and partially revealed emotion in the absence of awareness about proper affect. Moreover, the psychosomatic symptom is not a defense mechanism, and it does not occur because of a conflict, rather, it occurs since sufficient discharge is not provided in the mind-body unit. On the contrary, According to Rangell (1959), conversion is not a symptom, however, it is a process of transforming into a symptom and it includes and uses various defense techniques, particularly repression.

While referring to bodily complaints, the term somatic may be used as psychosomatic (Weigel, Maehder, Witt & Löwe, 2020). It represents the association between the psyche and soma, in other words, the mind and body (Kellner, 1994; APA, n.d.). Namely, this association was defined as the function of psychological elements, as a source of disorder, in the physical system of the person (APA, n.d.). According to Kendell (2001), separating mental and physical illness is an outdated and unfounded perspective, and instead of a phrase of mental illness, psychiatric illness or disorder ought to be used to remove the distinction between mind and body. Using mental and physical words for different disorders may cause harm to the individuals' benefits in the long run. It may lead both patients and medical practitioners to neglect the aspects

that may be the roots of the disorder and possibly effective therapy techniques, also, it may elicit stigmatizing individuals with “mental” disorder by separating them from all other diseases. This study benefited from the terms of somatization, somatic and psychosomatic symptoms, and functional somatic syndromes while covering bodily sensations.

In the fifth edition of the DSM (Diagnostic and Statistical Manual of Mental Disorders), some changes have been made to somatic disorders after the fourth edition of the book (American Psychiatric Association, 2022). The category of somatoform disorders took part in DSM-IV-TR to represent the bodily symptoms with the presence of powerful possibility to associate with psychological causes and the absence of any proof for a biological reason. To diagnose, these bodily symptoms should lead to apparent distress or substantially damage social or professional functioning in one’s life (APA, n.d.). According to the American Psychiatric Association Division of Research (2013), in DSM-IV, the identification of somatization disorder was related to symptoms that cannot be explained from a medical perspective. In DSM-5, the category of somatoform disorders changed with somatic symptom and related disorders to display a complicated interface between psychological and physical well-being. This new category includes somatoform disorder’s diagnostic criteria of bodily symptoms which cause apparent distress or substantially damage the individual’s functioning, along with extreme and disproportionate thinking, emotions, and acts related to the symptoms. Furthermore, to identify the issue as somatic symptom disorder (SSD), the person should exhibit those signs constantly for at least six months (American Psychiatric Association, 2022). From a more contemporary perspective, in DSM-5, the presence of positive signs such as disturbing bodily symptoms, and abnormal thinking, emotions, and acts are stressed instead of medically unexplained bodily signs (American Psychiatric Association, 2022). It is indicated that people with health problems (e.g., heart disease, cancer) may experience abnormal thinking, emotions, and acts associated with their disease. Therefore, these people may be diagnosed with somatic symptom disorder (American Psychiatric Association, 2013).

It was indicated that pain in different places of the body shows prevalence among somatic signs and doctor visits (Khan et al., 2003; Rezaki, Özgen, Kaplan, Gürsoy, Sağduyu & Öztürk, 1995). Individuals may experience multiple bodily

symptoms rather than a single one (Kroenke & Mangelsdorff, 1989; Khan et al., 2003; Creed et al., 2013; American Psychiatric Association, 2022). In general, bodily signs that individuals frequently experience were found as abdominal pain, shortness of breath, chest pain, fatigue, and limb pain (Garnefski, van Rood, de Roos & Kraaij, 2017). Also, another study indicated frequently reported symptoms as back pain, headache, and pain in the lower and upper limbs. Other than pain, dyspnea, cough, and different symptoms which are related to respiratory systems were found frequent (Khan et al., 2003). Similarly, the study by Schurman and colleagues (1985) found that chest pain, fever, fatigue, headaches, and dizziness were the frequent causes of doctor visits which ended in the diagnosis of psychological disorders. As indicated, the symptoms that the person experiences may be certain, such as pain, in a specific location, however, it may be comparatively uncertain, such as fatigue (American Psychiatric Association, 2022).

Lipowski indicated that every bodily sign may be viewed as perception and/or communication, by this way, an individual may declare their bodily perception, communicate their mental suffering through physical metaphors, or do these two together. Moreover, he mentioned that symptoms such as aches, weakness, and tingling directly cause cognitive and emotional reactions within an individual (1967). On the other hand, other signs such as fibromyalgia, tension headache, and irritable bowel syndrome (IBS) may be perceived as a demonstration of authentic functioning problems in the individual's influenced physical area or system (Lipowski, 1986). The issues such as fibromyalgia, IBS, and chronic fatigue syndrome may be clustered into functional somatic syndromes (FSS), which include the individual's experiences of symptoms, suffering, and disability. Feeling tired, weak, anxious, depressed, irritable; experiencing headache, muscle aches, sickness in the stomach and the rest of the digestive organs, palpitations, dyspnea, dizziness, dryness in the mouth; troubles in sleeping, recalling, and concentrating are the prevalent signs seen in FSS. Generally, the source of the difficulty that individuals experience comes from perceiving their common, endemic, and somatic signs as symptoms that are related to severe illness (Barsky & Borus, 1999). It was indicated that the association between functional somatic syndrome and somatic symptom disorder is not distinct. However, significant overlapping between these diagnoses is anticipated (Creed et al., 2013).

Somatization was interpreted as a method to deal with depression and perceived as a strong technique to acquire nurture and care from families across cultures (Katon et al., 1982). According to Lipowski (1990), it is possible that depressed person may recognize their feelings but may prefer not to interact with them. Alternatively, the person may not be able to identify their emotional mood because of cultural or individual aspects. From cultural perspective, demonstrating specific affections straightforwardly is inhibited in some cultures hence, individuals cannot identify and exhibit their feelings. Somatic signs accompany these feelings, in this way, individuals concentrate on bodily indications and express them openly. Also, concentrating on bodily signs that are not openly associated with a specific feeling helps reduce the emotional pain that the individual experiences (Kirmayer, 1984). From individual perspective, during childhood, an individual may acquire the act of somatizing by exposing physical disease in the family or getting reinforcement by declaring bodily symptoms. This act may help an individual interact with the feeling of distress or deal with interpersonal relations (Lipowski, 1990). Also, individuals may seek help in healthcare services for issues about social and familial relations, or their affections. However, they may believe that if they need to receive help, there should be a valid reason to apply, such as bodily signs (WHO & Wonka, 2008).

Besides depression, somatization is also related to anxiety disorders (Lipowski, 1988). According to Freedman and Sweet, individuals with somatic signs generally somatize their anxiousness very well and they are limitedly aware of their feelings. In fact, when it is implied that they might have bothersome feelings, they may react with confusion (1954). It was indicated that individuals may experience affections by way of their bodies; anxiousness may reveal itself as a knot in the stomach or sweat in hands or depression may be seen as fatigue or physical pain (WHO & Wonka, 2008). A study that was done between Turkish and British samples indicated that Turkish people demonstrated anxiousness through somatization more than British population. Moreover, it was found that Turkish sample with depression generally demonstrate bodily signs (Uluşahin, Başoğlu & Paykel, 1994). According to the study that was done in Ankara, the estimated prevalence of somatization disorder was found 1.9% (Rezaki et al., 1995). A more recent study by the Ministry of Health in Turkey signified that while the most common mental health problem in society is depressive disorder

with a ratio of 9%, somatization disorder follows this ratio with 5% (Ünal, Ergör, Dinç Horasan, Kalaça & Sözmen, 2013).

Circumstances that may lead to a possibility or prediction for bodily symptoms and related disorders were signified in different sources. The individual's characteristic feature of neuroticism was found as a jeopardizing aspect in terms of demonstrating multiple somatic signs. Moreover, it was found that low socioeconomic levels with lately encountered adverse experiences were seen commonly among people with SSD (American Psychiatric Association, 2022). Further, being elder, having a low level of education, being jobless, and stressed, having a past of sexual maltreatment or ACEs, and having a chronic disease or mental disorder, were discovered as associated with permanent bodily signs. Moreover, sensitivity toward pain, increased consideration of somatic signs, and interpretation of these signs as a medical disease instead of the occurrence of psychological stress were indicated as the aspects that impact the clinical progression of an individual (American Psychiatric Association, 2022). Also, sources signified bodily signs (Gerdan & Kurt, 2020; American Psychiatric Association, 2022; Rezakı et al.,1995; Loeb et al., 2018) and somatoform disorders (Keskin, Ünlüoğlu, Bilge & Yenilmez, 2012) are more prevalent in females than males. Similarly, according to a study by the Ministry of Health, somatization disorder is seen as three times more common among females than males in Turkey. In the same study, psychological disorders prevalence results concerning living areas showed that living in a city (12%) has a close ratio to living in a country (11%) (Ünal et al., 2013).

### **2.3 The Relationship between Parental Psychological Maltreatment and Somatic Symptoms**

According to Gilbert and colleagues (2009), constant abuse and a serious degree of neglect may lead to enduring influences while the child steps into adulthood. A longitudinal study indicated that exposure to diverse types of abuse in the first two years of life has adverse snowballing influences on a child, especially on a child with a mother who is emotionally not available (Egeland et al., 1983). In all families, there are various standards and principles to identify and deal with countless issues, one of which may be thought of as undesirable emotions. It was signified that these standards and principles are crucial in terms of providing emotional homeostasis between family

members. Moreover, subject to caregivers' behaviors, a child may receive firm signs that sharing some feelings is not allowed. Also, caregivers may not help much the child differentiate psychological status and bodily signs and express them (Katon et al., 1982). In a study, individuals with somatic symptoms mentioned more family conflict and less family cohesion about their childhood and these individuals grew up in familial relations that include continuous arguments, emotional distance, and insufficient support. Also, it was concluded that individuals with bodily symptoms are subjected to coldness, crudity, humiliation, rejection, and bodily penalty at young ages (Brown, Schrag & Trimble, 2005). As the warmth dimension of the IPARTheory defends, cold, aggressive, neglectful, or undifferentiated rejecting attitudes of parents are associated with psychological problems such as somatic signs (Rohner, 2021). Similarly, according to Stuart and Noyes (1999), the actual or perceived rejecting attitude of important ones is the encourager of somatization. Thus, in some families, somatic symptoms may be valid hints for one to acquire affection since nurturance is merely given for somatic pains, not for emotional pains (Katon et al., 1982). Furthermore, some caregivers provide care toward their child conditionally, and they less interact and less physically contact with the child. Yet, the child's complaints are responded to by the caregiver hence, the child comprehends to earn gratification through complaints and physical suffering (Violon, 1985). In childhood terms, this manner of the caregiver strengthens the sick attitude of the child, and it may be maladaptive when the child turns into an adult (Stuart & Noyes, 1999). Another longitudinal study (Craig, Boardman, Mills, Daly-Jones & Drake, 1993) presented that the absence of caregiver care, childhood physical sickness, and somatic symptoms in adulthood are associated. A study by Naz and Kausar (2012) on adolescents showed that both maternal and paternal attitudes of hostility and aggression, negligence, and undifferentiated rejection were found to be related to future bodily symptoms. Also, the absence of affection in paternal relationships, aggressive attitudes, neglect, and undifferentiated rejection in both parental relationships was connected to pain expressions. The absence of affection and neglect in the maternal relationship, aggression in the paternal relationship, and undifferentiated rejection in both relationships were connected to the problems with the stomach and bowel. A study that was done in İstanbul focused on fathers' role in their children's lives and results indicated that perceived paternal coldness, neglect, hostility, and undifferentiated rejection are positively correlated with worry, anxiety, and somatization. Furthermore,

paternal negligence and indifference, and hostility and aggression significantly predict somatic symptoms in adulthood (Kulaksız & Erensoy, 2021). Similarly, in a study that was conducted throughout Turkey a positive and significant correlation was found between perceived rejection of mother and perceived rejection of father, perceived negligence of father, hostility, negative self, depression, anxiety, and somatization (Balamir, 2020).

It was found that childhood psychological maltreatment and neglect are associated with psychological and physical distress in adulthood among female patients. In this study, even when the impacts of different kinds of maltreatment are relatively removed, childhood psychological maltreatment and neglect are predictive components of one's future psychopathology was pointed out (Spertus, Yehuda, Wong, Halligan & Seremetis, 2003). It may be said that abused and neglected children become sensitive to worries about their physical functioning and wholeness since their fundamental needs are not met by their parents (Waldinger, Schulz, Barsky & Ahern, 2006; Spertus et al., 2003). Another research demonstrated that people with a history of maltreatment or neglect in the past experienced more pain compared to others who do not have similar past experiences (Davis, Luecken & Zautra, 2005). Similarly, Beal, Kashikar-Zuck, King, Black, Bernes, and Noll (2021) found that among female participants, childhood maltreatment is related to feeling pain and more pain regions in the body in early adulthood.

A study that was done with participants with fibromyalgia syndrome indicated that childhood term psychological and sexual maltreatment and psychological and physical neglect are associated with the degree of adult bodily signs (Bohn, Bernardy, Wolfe & Hauser, 2013). In the study by Waldinger and colleagues (2006), for male participants, ACEs, and attachment style were found to be separately significant factors that predict adulthood bodily symptoms while for females, it was found that ACEs, promote them to attach insecurely (specifically attach fearfully) and have an impact on the degree of bodily symptoms in adulthood. This was thought that maltreated or neglected children may have a tendency to believe that the self is not worthy to receive care and caregiver figure is not trustworthy, and maybe even dangerous. Similarly, when psychological maltreatment during childhood includes obvious disdain and devaluing, one may accept that the self has no value (Kealy,

Rice, Ogrodniczuk & Spidel, 2018). Also, a person may suppose that emotional needs may lead people to become distant. Thus, to diminish the adverse results, the person may atoningly concentrate on somatic signs and look for support for medically unexplainable signs (Waldinger et al., 2006). As IPARTheory indicated, people have mental representations (i.e., cognitive schemas), which include general knowledge about the self, important ones, attachment figures, and the rest. This knowledge is built upon important affectional previous and present experiences. Constructed schemas cause one apt to look for or avoid specific circumstances and people (Rohner, 2005, 2021).

## **2.4 Psychological Resilience**

Studies on psychological resilience differ concerning the period of life it is studied; on one hand, resilience in childhood is investigated from a developmental point of view and it looks for the elements which contribute to positive conclusions in challenging circumstances, on the other hand, resilience during adulthood is concentrated on the elements that provide one to cope well with adversities with pursuing normal functioning. Additionally, resilience during the adolescence period includes both perspectives, and studies indicated that the environment of a person and personal characteristics together have impacts on psychological resilience in adolescents (Bonanno, 2004; Garmezy, 1991; MacDermid, Samper, Schwarz, Nishida & Nyaronga, 2008; Rutter, 1987). In light of these, the current study investigated psychological resilience in terms of its development at early ages and benefited from both understandings and findings of child and adult psychological resilience to embrace past adversities and current situations.

The description of resilience shows diversity when the term is thought of in connection with individuals (Fletcher & Sarkar, 2013; Sisto et al., 2019). Masten, Best, and Garmezy (1990) mentioned the term resilience as the course of, the ability for, or consequence of successful adjustment. This adjustment occurs in spite of the existence of difficult or menacing conditions. According to Richardson, Neiger, Jensen, and Kumpfer (1990), resilience is defined as a dealing process that occurs as a consequence of troublesome, stressful, or difficult happenings. This process contributes to the person by acquiring new protective and coping abilities that the person did not have

before the disruption. Moreover, the APA Dictionary of Psychology (n.d.) extended the definition as an accomplished adaptation to burdensome situations as a consequence of being psychologically, emotionally, and behaviorally flexible and accommodating to extrinsic and intrinsic requests. As Luthar, Cicchetti, and Becker (2000) indicated, there is a disagreement about the term resilience as to whether it is an individual characteristic or a dynamic process. They indicated that it represents the process of competence in spite of difficulty, and it is confused with the concept of ego resiliency, which means a certain individual characteristic. Moreover, to mention ego resiliency, the experience of significant challenges is not required while it is necessary for the term resilience. In fact, in today's perspective, resilience is a continuing process of wholesome adjustment to difficulty (Graber et al., 2015). Also, it was signified that resilience is not merely an innate feature or acquired through experiences. Both genetic and environmental aspects play roles (Deater-Deckard, Ivy & Smith, 2005; MacDermid et al., 2008) in terms of guarding a child against threats in the course of wholesome development, the act of guarding against threats may vary from germs to abuse and rejection. First, it was thought that resilience is a fixed personal characteristic such as hardiness, yet it was enlightened that environmental aspects also play a role in resilience in terms of its enhancement and inhibition such as parenting style (MacDermid et al., 2008). In accordance with the more contemporary perspective, hereditary and environment function jointly to create personal differences in the process of growth, instead of the older perspective as battling between them to manage an individual's growth (Deater-Deckard et al., 2005).

As the examples above supported, the literature of psychology for the explanation of the term resilience commonly includes two fundamental notions as adversity and positive adjustment and it was accepted that these two notions should be clear for resilience to be seen (Fletcher & Sarkar, 2013). Rutter (1995) mentioned that for children, guarding them against all stressful situations is neither reasonable nor preferable; tough situations are required aspects in the process of their development. They should comprehend how to effectively deal with these types of situations. In this process, it is crucial that the degree of adversity, the timing, and the pacing of the threats and stressors should be in a way that provides a space for a child to be successful (Rutter, 1995). On the other hand, as it was indicated earlier, exposing risk factors at early ages, and having issues in the future are related. Namely, as a result of

early adverse exposures, risks with increasing effects may be seen, and the possibilities of developing symptoms or failing to function may be heightened. Early adversities may occur in various ways such as serious or chronic disease, poverty, atrocity, maltreatment, natural disasters, ubiquitous jeopardy, and more. What defines one's psychological resilience and the way of coping depend on the type and asperity of the adversity, the existence or dearth of internal and external sources, and the instant and following mobilization (Levine, 2003).

Adversities are also known as risks and what may intensify the risky situations' adverse impacts are vulnerability factors (Luthar & Cicchetti, 2000). While referring to biological and psychosocial risk elements, the term vulnerability may be used. In this sense, it means a disposition to a certain illness course, and vulnerability characteristics are not essentially the illness itself, yet, to observe a certain psychological illness, these characteristics may be required (Mrazek & Haggerty, 1994). Baldwin, Baldwin, and Cole (1990) mentioned proximal and distal variables in risk factors since not all the factors create an impact on the child at the same level and in the same way. Following them, for instance, social class is a crucial risk element that has an impact on cognitive results, yet it does not have a straightforward impact on the child. Instead, it intervenes by way of some proximal variables. It may be exemplified by a working mother who is not financially able to hire someone for house chores and has to deal with them after an exhausting workday. The nervousness that she experiences may be a proximal variable that the child may be affected straightforwardly, and it is caused by financial challenges. In terms of risk degrees of the families, some of the distal variables may be thought of as the family's degree of job and education, minority status, and paternal absence. Besides, there may be countless proximal variables that affect the child more forthrightly.

It is crucial to mention that resilience improves over time and people with deficient developmental consequences in childhood do not have to be obliged to live with adverse consequences in their lives (MacDermid et al., 2008). According to studies on resilience, alteration, and adaptation is always feasible (Graber et al., 2015). The results of the Kauai Longitudinal Study showed that while two out of three children from the high-risk group developed psychological problems and adolescent pregnancies when they were at the age of 18, one out of three children from this group

showed positive adjustment in their relationships, occupations, lives and developed hope when they became young adults (Werner, 1996). The research area of resilience includes why certain people are capable of enduring or further, developing in adversities they encounter (Fletcher & Sarkar, 2013). The term protective factor refers to especially in challenging conditions, the feature of an individual, circumstance, or interaction which foresees better results. It means guarding one against the impacts of calamity. That is, it manifests itself as a moderator to smooth the negative impacts on adjustment when the degree of calamity is high. A child who lives in an impoverished environment may have various protective factors such as a secure home, a supportive, considerate, and warm family, and a teacher (O'Doughert Wright & Masten, 2005). It was indicated that there is no certain element that provides psychological resilience, instead, a mutual effect that various elements create together constitutes psychological resilience when encountering challenges (MacDermid et al., 2008).

According to Luthar and colleagues (2006), there is a confused meaning between vulnerability and protective factors; it was thought that these concepts refer to the opposite meaning of each other (e.g., a higher level of intelligence is related to a protective factor and a lower level of intelligence is associated with a vulnerability factor), yet they defended that it may not be valid for all cases. On the other hand, Rutter (1990) mentioned that the fundamental description aspect between vulnerability and protective factors is an alteration in one's reaction to the risk condition. Accordingly, in ordinary conditions, a response to an aspect that causes a maladjusted result needs a kind of intensification (vulnerability), or improvement (protection). In addition, the impact is not direct, and it is based on the interaction. In this way, it was signified that vulnerability and protection are two faces of a coin, namely, they are opposite sides of the same notion.

In accordance with the literature, protective factors may be collected into three categories; individual, family, and social (Haase, 2004; MacDonald et al., 2013). Firstly, individual features contain positive coping skills and derived meaning (Haase, 2004). According to Rutter, protection may depend on the steeling features that arise from efficacious coping with threats (1990). Research demonstrated that plenty of participants with a high degree of rejection in the past showed sufficient psychological adaptation as the coping subtheory of IPARTheory suggested (Ki, Rohner, Britner,

Halgunseth & Rigazio-DiGilio, 2018). Moreover, derived meaning includes hope and spiritual view (Haase, 2004), and both concepts are found as protective factors among the individuals who experienced ACEs (Roy, 2021). Similarly, in İstanbul and Eskişehir, hope is found to be a mediator in the association between psychological vulnerability and subjective well-being (Satici, 2016). Benard (1991) mentioned that the features of individuals with resilience include problem-solving abilities (e.g., abstract and reflective thinking), autonomy, and a sense of purpose and future. In addition, Rutter (1995) indicated that self-esteem and self-efficacy are crucial features in terms of protective mechanisms since they enhance one to feel fine about the self and have a constructive belief in the capability of the self to deal with difficult situations. Namely, one's self-concept which allows the individual to believe that they will successfully do what they need to do assuredly is a significant feature and it may arise in different ways. According to Bandura and Cervone (1983), individuals with low self-efficacy may simply give up when they encounter a setback. However, in the same situation, individuals who are confident about their abilities in terms of achieving their aims boost their endeavors and they continue by the time they accomplish. Also, having responsibilities and carrying out assignments well may provide one self-confidence and high self-esteem. Being successful in a series of similar assignments may lead one to make inductive reasoning in considerably distinct assignments (Rutter, 1995). Karairmak and Siviş-Çetinkaya (2011) demonstrated that the one with a high degree of internal locus of control also has a higher degree of psychological resilience. Moreover, positive emotions found as related to resilience, and as the level of self-esteem increases, the level of psychological resilience increases as well.

Secondly, guarding features of the family include family atmosphere, support, and resources (Haase, 2004). Initially, having warm, safe, and mutual relationships, which derive generally from one's attachment to caregivers, is crucial (Rutter, 1995). A study by Daniels and Bryan (2021) demonstrated that even though the individuals were subjected to complex traumas, powerful family setting and cohesion in the past is related to a higher probability of having psychological resilience in early adulthood. Similarly, another study presented that constructive elements within the family may support an individual's psychological resilience even in the presence of calamity (Bradley, Davis, Wingo, Mercer & Ressler, 2013).

Thirdly, social guarding elements include social integration (Haase, 2004). In Kauai Longitudinal Study, one of the aspects that help positive adjustment of children with high-risk conditions found as having personality traits that provide a person to gain constructive reactions from concerned others such as caregivers, teachers, advisors, peers, and partners (Werner, 1996). In Turkey, it was found that features of agreeableness such as empathy, feeling close, trust, and collaboration in interpersonal relationships are positively correlated with resilience. It was discovered that having social skills has a positive influence on resilience, particularly on taking social support processes (Çetin, Yeloğlu & Basım, 2015). Similarly, among university students, well-being and sociability predicted resilience (Özer, 2013).

Other than mentioned above, different mechanism that shields an individual is related to beneficial chances such as academic and career opportunities. These may provide one to be distant from tense and detrimental circumstances (Rutter, 1995). According to the study of Höjer and Johansson (2013), juveniles who have turbulent family environments mentioned that school supplied structure and safety for them. They acquired a belief that they have control over their lives and make plans. These provide them to increase in their capability of resilience. Moreover, being in school made them far away from feeling as different; they reported that they feel normal among their friends. It is important to note that as Benard (1991) mentioned, for example, if one's crucial risks are related to family structure, their protective elements are supported by social or school settings. Besides these results, the study of Stouthamer-Loeber and colleagues (1993) showed that protective features may be the reverse of risk features, thus, Sameroff (2000) argued that it may be more understandable to use the concept of promotive factors instead of protective factors. It was declared that promotive elements are related to preferable results almost in all degrees of risky circumstances. On the other hand, protective elements generally show their effects when the degree of difficulty is high (Masten, 2018).

## **2.5 The Relationship between Psychological Resilience and Parental Psychological Maltreatment**

It has been coherently found that high-quality parenting is the element that provides a child to acquire and maintain adjustment with resilience (MacDermid et al., 2008). Moreover, the parents' emotional bond and the level of autonomy that are

provided to the child help acquire a level of resilience which is necessary to deal with adversities (Biernacka, Jakubowska-Winecka & Kalicinski, 2021). Accordingly, in Turkey, university students who perceived their parental attitude as democratic showed a higher level of psychological resilience compared to the ones who perceived their parents' attitudes as incriminating and authoritarian (Özer, 2013). According to Kopko (2007), what supports young ones' wholesome development is mothers' and fathers' warm and firm rearing attitude which refers to authoritative parenting. This attitude of parents was found as the most successful attitude not only for a child's welfare but also family's functioning in adversities (Walsh, 2003).

Zakeri, Jowkar, and Razmjooe (2010) presented that parental accepting attitudes predicted psychological resilience among university students. Furthermore, the connection between the warm, supportive, child-centered attitude of parents and the improvement of psychological resilience of children was indicated. Similarly, a study in Turkey presented that maternal and paternal acceptance attitude is associated with individuals' psychological resilience. Thus, this attitude may be perceived as a protective element that enhances the individual's competence to get through adversities (Epli, Vural Batık, Doğru Çabuker & Balcı Çelik, 2021). From the perspective of IPARTheory, since the child's safety and the rest of the emotional and psychological statuses come from the characteristic of the maternal and paternal bonds with the child, mothers and fathers are remarkably significant. Thus, the attitudes of the mothers and fathers as accepting and rejecting have a unique effect on forming the child's personality development and psychological adaptation (Rohner, 2021). During childhood, this bonding is also crucial since mothers and fathers prepare an individual for how to behave and what to expect in later relations. In this sense, parental abuse and neglect are serious risks to one's psychological resilience (MacDermid et al., 2008). In relation to these, in Petrowski, Brähler, and Zenger's study (2014), parents' adverse attitudes (e.g., rejection and punishment) remembered by their children showed a negative correlation with individuals' psychological resilience while constructive remembered parental attitudes (e.g., emotional warmth) are related to individuals' high level of resilience. It was indicated that parents' rejecting attitude may bring about adverse personality issues such as anxiety, insecurity, and dependency (Rohner, 2021).

Early childhood and pre-adulthood are crucial years of life in terms of contributing to resilience. This may be said that in the initial years of childhood, the brain pursues its development, hence cognitive capability and thereafter psychological resilience are susceptible to poor stimulation in these terms. Therefore, the long-term absence of the caregiver is accepted as a critical issue. Furthermore, pre-adulthood is also a significant term as consequential physical and cognitive alterations happen within individuals (MacDermid et al., 2008). The study of Soffer, Gilboa–Schechtman, and Shahar (2008) demonstrated that parental neglect may inhibit the child to acquire constructive thoughts about the self, hence, this may prohibit the child to build psychological resilience or constructive schemas about the self. In this study, it was also presented that maltreatment and neglect may have independent influences on cognitive risks and psychological resilience. Different than neglect, psychological abuse (e.g., mothers' and fathers' adverse judgments about the child) may lead the child to internalize unfavorable thoughts and develop these schemas about the self. According to IPARTheory, rejected people create damaged self-esteem and damaged self-adequacy; they believe they are not loved by their attachment figures, and over and over, they are not worthwhile to love. Therefore, adverse schemas about the self and different outcomes of being rejected lead to a decrease the person's ability to cope with stress (Rohner, 2021).

## **2.6 The Relationship between Psychological Resilience and Somatic Symptoms**

It was signified that resilience helps one enhance the constructive signs of mental health and guard from menaces to mental well-being (Konaszewski, Niesiobędzka & Surzykiewicz, 2021). Accordingly, it was presented that psychological resilience is positively related to mental health (Haddadi & Besharat, 2010). Moreover, resilience is thought to be not only a psychological concept but also related to physical well-being. That is, in a study, individuals with the capability of competent overcoming adversities showed this competency also in their physiological responses by promptly getting back to baseline levels thereafter adverse emotional stimulation. Hence, it was thought that an individual's understanding of their resilience may be mirrored in their physical reactions to tense circumstances (Tugade, Fredrickson & Feldman Barrett, 2004). A study that was done on participants who experienced natural disasters presented similar consequences; one's growth in the

understanding of resilience and a decline in bodily symptoms in the process of time (Osofsky, Weems, Graham, Osofsky, Hansel & King, 2019). Also, research by Karampas, Michael, and Stalikas (2016) presented that a high level of psychological resilience is related to good psychosomatic well-being while a low level of psychological resilience is associated with poor psychosomatic well-being. Similarly, another study found that one's capability of resilience predicts lower somatic signs. In this sense, resilience may be an individual's reserve, which supports one to adjust to alterations, relieves the impacts of stress, and diminishes the feeling of depressiveness (Bonanno, Kennedy, Galatzer-Levy & Lude, 2012; Fuentes-Chacon, Simón-Saiz, Díaz-Valentín, Rodríguez-Sánchez, Martínez-García, & Garrido-Abejar, 2022).

Yehuda, Flory, Southwick, and Charney's model (2004) suggested that an individual's features connected with resilience develop within an individual in response to adversity in the surroundings. Thus, exposure to calamity stimulates psychological mechanisms, similar to the adjustment of biological neural defensive techniques which permit one's short-term fight-or-flight reactions, besides providing guardianship against harm in the long run. Also, they mentioned that someone can acquire resilience for coping with challenges or alleviating or impeding symptoms that are related to experienced adversity. Besides, coping is perceived as necessary to work on since especially the characteristics of handling adversities may create a change in one's following development. Namely, if someone is overwhelmed, then it may make one more susceptible to ensuing mental disorders. On the other hand, if one overcomes adversity, then one may be stronger against further menaces (Zimmer-Gembeck & Skinner, 2016). It was found that adverse coping techniques (e.g., wishful thinking and self-blame) were related to bad health consequences of cognitive hardship, fatigue, bodily signs, worry, and depression (Mark & Smith, 2018).

On the contrary, as the literature above supported, psychological resilience showed adverse relation with vulnerability indicators (e.g., psychological distress, depression, anxiety) (Haddadi & Besharat, 2010). In this sense, somatic symptoms may be perceived from the perspective of the diathesis-stress model. The model defends that a disorder occurs due to the communication between vulnerability factors of a disorder and certain types of stressors (Wald, Taylor, Asmundson, Jang & Stapleton, 2006). According to Zuckerman (1999), in many cases, merely diathesis

may not be adequate to develop a disorder. Yet, different strengthening or releasing components are needed, in these circumstances, diathesis may contain vulnerability to stress. As Wald and colleagues (2006) indicated, generally, bodily signs (e.g., headache, muscle ache, and gastrointestinal distress) accompany stress. In addition, Alschuler, Kratz, and Ehde (2016) concluded that elements of resilience and vulnerability are vigorously related to pain results. To be more specific, this may be exemplified that a study that was done on preadults indicated that participants' great amount of headaches are related to their poorer amount of resources for resilience and greater vulnerability risk (Arruda, Arruda, Landeira-Fernandez, Anunciaça & Bigal, 2021). Furthermore, a study by Parker and colleagues (2020) showed that a low level of psychological resilience is related to worse irritable bowel syndrome, and it was concluded that poor psychological resilience influences the intensity of symptoms and psychological well-being. In this study, it was suggested that a higher degree of psychological resilience in people with ACEs may play a guarding role opposite to having disorders that are susceptible to stress. Another study established similar results; individuals with a lower level of resilience showed a higher degree of IBS symptom intensity in their usual symptoms. However, they did not show this for their present signs. This was explained as resilience may have a larger influence on chronic consequences (Park et al., 2018). Moreover, another study presented those two aspects of resilience in chronic pain; pain-related self-efficacy and pain acceptance are related to the decreased degree of functional disability and depressive signs among child participants with chronic headaches (Kalapurakkel, Carpino, Lebel & Simons, 2014).

## **2.7 The Relationship between Parental Psychological Maltreatment, Somatic Symptoms, and Psychological Resilience**

The current study investigated the relationship between parental psychological maltreatment and adulthood somatic symptoms through psychological resilience. In literature, similar topics were researched. The relationship between trauma in childhood, resilience, and functional somatic syndromes was examined in Germany, and the results presented that childhood adversity is associated with a high level of stress sensitivity and decreased level of resilience. That is, it predicted the expression of functional somatic syndrome by way of chronic stress (Fischer, Lemmer, Gollwitzer & Nater, 2014). In a different study, ACEs and somatic symptoms with the impacts of

disturbed self-organization and resilient coping were analyzed with a Slovenian sample. It was discovered that ACEs are related to heightened somatic symptoms. Also, a high degree of resilient coping weakened the association among ACEs, disturbed self-organization, and somatic symptoms by way of a connection between ACEs and disturbed self-organization (Kuhar & Zager Kocjan, 2021). Furthermore, the relationship between resilient coping and distress in individuals with ACEs was examined in a German sample. Findings indicated that resilient participants presented a lower level of distress and somatoform signs despite exposure to ACEs (Beutel et al., 2017). Lastly, a study that was done in the USA analyzed the relationship between resilience and IBS. The results showed that lower resilience is related to severe IBS signs and early adverse life events are related to weakened capability to overcome in participants with IBS (Parker et al., 2020).

In conclusion, these studies focused on different types of aspects while measuring early life adversities other than parental acceptance and rejection. Moreover, the approach and measuring instruments of these studies for somatic symptoms and psychological resilience were different than the current study's instruments and approaches. In addition, the samples of the presented studies constituted different nations and cultures. Therefore, the relationship between parental psychological maltreatment and adulthood somatic symptoms through psychological resilience has not been researched with the same approach in international literature, and as far as it was researched, the current study is novel for national literature.

## **Chapter 3**

### **Methodology**

This chapter includes the research design, participants of the current study, data collection instruments, data collection procedure, data analysis procedure, reliability and validity of the scales, and limitations of the current study.

#### **3.1 Research Design**

The current research is a correlational study that investigated the connection between parental psychological maltreatment with its subdimensions, adulthood somatic symptoms, and psychological resilience with its subdimensions. Since this study did not include any control or manipulation of a researcher, it is non-experimental research. The current research is a cross-sectional study since collecting the data of the study is at one certain point in time. The data collection was done through five different scales and the results were examined quantitatively.

#### **3.2 Participants**

University students in Turkey constituted the sample of this study. The sample size was based on previous studies that investigated similar topics or used similar techniques in data collection. In the current study, participants were determined by using multistage cluster sampling and 516 individuals participated in the study. Inclusion criteria for the study were being in the age range of 18-30 and growing up with a mother and father in Turkey. In this sense, participants who are younger than 18 or older than 30, are not university students, grew up with a caregiver other than mother and father, and grew up in a different country were excluded. In addition, outliers and participants who did not complete any scale were excluded from the study. After the exclusion, 332 participants constituted the sample of the study. The requirement of being in an age range of 18-30 to attend the current study was based on the reliability and validity studies of the scales that were used. Also, within the scope of the study, it was expected that the participants should have been raised in Turkey to represent the data collected in Turkey and to eliminate the differences in upbringing style, perception of bodily symptoms, and developing psychological resilience that may occur as a result of cultural changes in the interpretation of the variables. Lastly,

the requirement of growing up with a mother and a father was due to the Turkish reliability and validity of the Parental Acceptance-Rejection Questionnaire of Mother and Father was done together. The current study is based on voluntary participation and regardless of the participants' gender, level of income, relationship status, medical history, and psychological diagnosis, they were able to participate in the research. In terms of confidentiality, the names of the participants were not asked.

The demographic features of the participants were presented in Table 1 and Table 2. According to the results, the mean age of the participants was 21.20 ( $SD = 2.446$ ). The majority of the participants were female (83.7%), and the rest of them were male (16.3%). The participants' mostly lived place in their lives was found as mainly as a city (57.2%), town (28.9%), and lastly village/small town (13.9%). The level of income was found respectively 5.000 – 10.000 TL (35.2%), 10.000 – 20.000 TL (29.2%), 20.000 – 50.000 TL (14.8%), 2.000 – 5.000 TL (13.6%), 0 – 2.000 TL (4.5%), and 50.000 above (2.7%). Many of the participants were not in a relationship (67.8%), 28.9 of them were in a relationship, 3% of them were married and lastly, 0.3% of them were divorced. The majority of the participants (88.3%) reported that they have someone they trust and get support while 11.7% of them did not. 87.3% of the participants reported that they do not have chronic illness whereas 12.7% of them indicated that they have a chronic illness. Most of the participants (95.5%) were not using any psychiatric medication and the rest of them (4.5%) were using psychiatric medication. Moreover, the majority of them (93.7%) were not diagnosed with mental disorders whereas 6.3% of them were diagnosed with some mental disorder. Mental disorder diagnoses of the participants varied between depressive disorders (i.e., major depressive disorder) bipolar and related disorders (i.e., bipolar disorder, cyclothymia), eating disorder (i.e., bulimia nervosa), substance-related and addictive disorder (i.e., alcohol addiction), anxiety disorders (i.e., panic disorder, generalized anxiety disorder, social anxiety disorder), personality disorder (i.e., schizoid personality disorder), sleep-wake disorders, ADHD, and misophonia.

Table 1

*Descriptive Statistics of the Demographic Characteristics*

Characteristic	<i>M</i>	<i>SD</i>	Min.	Max.
Age	21.20	2.446	18	30

*Note.* *M* = Mean, *SD* = Standard Deviation, Min. = Minimum, Max. = Maximum.

Table 2

*Frequency Distribution of the Demographic Characteristics*

Characteristic	<i>N</i>	% of total
Gender		
Female	278	83.7
Male	54	16.3
Place Mostly Lived		
City	190	57.2
Town	96	28.9
Village	46	13.9
Income Level		
0 - 2.000 TL	15	4.5
2.000 – 5.000 TL	45	13.6
5.000 – 10.000 TL	117	35.2
10.000 – 20.000 TL	97	29.2
20.000 – 50.000 TL	49	14.8
50.000 +	9	2.7

Table 2 (cont.d)

Relationship Status

No Relationship	225	67.8
In a Relationship	96	28.9
Married	10	3.0
Divorced	1	0.3

Trusted One

Yes	293	88.3
No	39	11.7

Chronic Illness

Yes	42	12.7
No	290	87.3

Psychiatric Medication

Yes	15	4.5
No	317	95.5

Mental Disorder Diagnosis

Yes	21	6.3
No	311	93.7

Psychotherapy Status

Not received	296	89.2
Received in the past	28	8.4
Currently receiving	8	2.4

---

*Note.* N = Sample size (N=332 for each characteristic).

### 3.3 Data Collection

#### 3.3.1 Data collection instruments

The demographic information form to obtain demographic characteristics, the Resilience Scale for Adults to measure protective factors and level of psychological resilience, the Parental Acceptance-Rejection Questionnaire both mother and father form to assess the level of experienced acceptance and rejection by parents, and lastly, the Bradford Somatic Inventory to evaluate whether there are somatic complaints and the duration of them were respectively completed by the participants online.

**3.3.1.1 Demographic information form.** A Demographic Information Form was used to collect demographic information about the participants including whether they are university students, age range, participants' caregiver(s), whether they were raised in Turkey, age, gender, kind of place that they spent most of their life, income level, relationship status, whether they have a trusted one, whether they are smoking, if they are, number of smoking per day, whether they have a chronic illness, if any, definition of chronic illness, whether they use psychiatric medication, if they are, symptoms for using psychiatric medication, whether they are diagnosed with a psychological disorder, if they are, the definition of the psychological disorder diagnosis, and whether they receive psychotherapy. The first four questions were asked for the detection of the participants who did not meet the inclusion criteria of the study. The form was prepared by the researcher (Appendix A).

**3.3.1.2 Resilience scale for adults (RSA).** RSA was developed by Friborg, Hjemdal, Rosenvinge, and Martinussen (2003) to measure protective factors and investigate whether the protective factors show distinction among clinical and non-clinical individuals. This scale includes the dimensions of personal competence, social competence, personal structure, family coherence, and social support (Friborg et al., 2003). Moreover, in the following study, Friborg, Barlaug, Martinussen, Rosenvinge, and Hjemdal (2005) rebuilt the dimension of personal strength in personal competence as perception of self and perception of future to establish a good fit (Friborg et al., 2005). While the previous version of the scale includes 37 items (Friborg et al., 2003), the new version of RSA includes 33 items with a 5-point Likert scale (Friborg et al., 2005). Structured style (3,9,15,21) and perception of future (2,8,14,20) include 4

items, family cohesion (5,11,17,23,26,32), perception of self (1,7,13,19,28,31), and social competence (4,10,16,22,25,29) include 6 items, and lastly, social resources (6,12,18,24,27,30,33) includes 7 items. In this scale, the scores of internal consistency values were found between 0.76 to 0.87. All the factors showed a correlation with each other ( $r= 0.31$  to  $0.57$ ), yet structured style and social competence were not found as related. Significant correlations between personality and resilience were found as positive ( $r= 0.17$  to  $0.83$ ). It was concluded that high rates are related to high rates of psychological health, adaptation, and therefore resilience (Friborg et al., 2005).

In the current study, the Turkish version of RSA (Yetişkinler için Psikolojik Dayanıklılık Ölçeği), which was developed by Basım and Çetin (2011) was used. The reliability and validity of the Turkish version of the scale were done in two different groups university students and working individuals. Test-retest reliability was done on university students and the results of Pearson correlation coefficients of subdimensions demonstrated that 0,72 for the perception of self, 0,75 for perception of future, 0,68 for structured style, 0,78 for social competence, 0,81 for family cohesion, and 0,77 for social resources. Internal consistency of both samples varies between 0,20 and 0,52 and Cronbach's alpha for subdimensions was found for the university student sample between 0,66 and 0,81 while it was between 0,68 and 0,79 for the sample of working individuals. Total Cronbach's alpha coefficient was found as 0,86 for both samples. According to the results of factor analysis, a total of 55.5% variance for the sample of university students, and a total of 53.5% variance for the sample of working individuals were explained. Criterion validity was provided with different scales. The Social Comparison Scale and the dimensions of the RSA showed a positive correlation in both samples. Moreover, a negative relationship with the dimensions of perception of self, perception of future, and structured style of the RSA and the Locus of Control Scale was established in both samples. To test the construct validity, both five-factor and six-factor structures were tested. As a consequence, the six-factor structure showed a good fit while the five-factor structure could not. As a result of factor analysis of the six-factor structure, a total of 55.5% variance was explained for the student sample and a total of 53.5% for the working sample. Thus, the results indicated that the six-factor structure with the dimensions of perception of self, perception of future, structured style, family cohesion, and social resources was confirmed. All in

all, the reliability and validity of the Turkish version of RSA were provided by both samples (Basım & Çetin, 2011) (Appendix B).

**3.3.1.3 Parental acceptance-rejection questionnaire (PARQ).** PARQ was developed to evaluate the present understanding of children and remembering of adults for the level of their experiences about parents' acceptance or rejection in childhood. PARQ includes four scales: warmth and affection, hostility and aggression, indifference and neglect, and lastly undifferentiated rejection. It has several types of measures to measure parental acceptance and rejection from the perspective of early children, children, adults, and parents. The scales have standard (60 items) and short (24 items) versions. This study is concerned with Adult PARQ and it is a 4-point Likert scale scoring from 4 as "almost always true" to 1 as "almost never true." In this version, scores vary between 24 (lowest), which is related to the highest level of perceived acceptance, and 96 (highest), which is related to the highest level of perceived rejection (Rohner & Ali, 2016). The scale was translated into 52 languages. The reliability of the questionnaire was provided through a meta-analysis of 51 research that was done in different countries by Khaleque and Rohner (2002). According to these studies, the questionnaire was found as reliable to use for both research and practice. For Adult PARQ, the alpha coefficient was found .95 (Khaleque & Rohner, 2002). Convergent, discriminant, and construct validity of the questionnaire were presented by Rohner (2005) (Rohner, 2005, as cited in Rohner & Ali, 2016). Moreover, different studies indicated invariance of the questionnaire in the USA, Australia, and Italy (Gomez & Rohner, 2011; Senese et al., 2016).

In the current study, the Turkish version of Adult PARQ – Short Form (Yetişkin Ebeveyn Kabul-Red Ölçeği – Kısa Form / Yetişkin EKRÖ/K) was used. The Turkish version of the questionnaire was developed by Dedeler, Akün, and Durak Batıgün (2017). The scale was completed for mothers and fathers separately and the questionnaire has 4 subscales. The subscale of warmth and affection has 8 items, hostility and aggression has 6 items, indifference and neglect has 6 items and undifferentiated rejection has 4 items. The reliability and validity of the questionnaire were done on two samples. In the first phase, the factor structure of the questionnaire was determined with 685 individuals. Then, the criterion and discriminant validity and reliability were assessed with 201 university students. The reliability of both mother

and father questionnaires indicated that Cronbach's alpha internal consistency coefficients varied between 0.75 and 0.96 for all scales and subscales. Item-total correlations showed variations between 0.45 and 0.92 and test-retest reliability coefficients varied between 0.40 and 0.96. To conclude, EKRÖ/K was found as reliable and valid in terms of assessing parents' acceptance and rejection of individuals retrospectively (Dedeler et al., 2017) (Appendix C).

**3.3.1.4 Bradford somatic inventory-44 (BSI-44).** Mumford and colleagues developed the BSI in terms of the necessity of an inventory that assesses somatic complaints related to psychiatric disorders in different cultures. The BSI was developed according to the complaint reports of individuals with anxiety or depression clinical samples in Pakistan and Britain (Mumford et al., 1991). The inventory is concerned with various somatic signs that an individual experiences during the previous month. If an individual experiences a certain bodily complaint, it assesses whether an individual felt the signs for more or less than 15 days (Mumford et al., 1991; Mumford et al., 2000). If the specific signs were experienced for more than 15 days, it is scored as 2 points, and if the specific signs were experienced for less than 15 days, it is scored as 1 point (Mumford et al., 2000). The inventory includes 46 items and 2 of these items are for mere males (Mumford et al., 1991). The Cronbach's alpha coefficient of the inventory was found as 0.86 in the British sample (Mumford et al., 1992, as cited in Mumford et al., 2000).

In the current study, the Turkish version of the Bradford Somatic Inventory (Turkish BSI-44) (Bradford Bedensel Belirti Envanteri) was used. The reliability and validity of the Turkish BSI-44 were done by Kose and colleagues (2017). The sample of the study was constituted of Marmara University School of Medicine university students aged between 18-30. Hence, the data was collected from a non-clinical sample. Unlike the original inventory, the Turkish BSI-44 consists of 44 items; 2 items that are originally developed for male participants were discarded in this version. The total score of the inventory is assessed as low when the score is between 0-25, middle when the score is between 26-40, and high when the score is higher than 40. The internal consistency reliability coefficient was .90 and the inventory demonstrated good test-retest reliability as .75. To test the convergent validity of the inventory, Whiteley Index, Somatosensory Amplification Scale, and SCL Somatization subscale

were used and positive significant correlations between these scales and the Turkish BSI-44 were found. In conclusion, the Turkish BSI-44 was found to be valid and reliable (Kose et al., 2017) (Appendix D).

**3.3.2 Data collection procedures.** Before collecting data, a pilot study was done to detect typos, missing or not understandable parts. The current study was approved by Bahçeşehir University Scientific Research and Publication Ethics Committee (Appendix E) and after the ethical approval, the data collection was started. The data was collected by multistage sampling. A list of all 208 universities in Turkey was reached by YÖK (Council of Higher Education) and 26 universities from that list were chosen by simple random sampling. After choosing universities, academicians were divided into faculties. Unlike the normal procedure of multistage sampling, academicians from the faculties were not selected by simple random sampling, instead, all the academicians from each faculty were reached via e-mail to share the current study with their students. The current study was done by participants on Google Documents. Approximately, participating in the study took approximately 15 minutes. On the first page of the study, the Informed Consent Form (Appendix F) was placed and briefly mentioned who carries the study, the aim of the study, participation criteria, the content of the scales in the study, duration of the study, contributions to the literature, rights of the voluntary participants, the confidentiality of the participants, and contact information of the researcher. To participate in the study, the participants needed to approve the Informed Consent Form, otherwise, they were not participated in the study. After the approval, participants carried out Demographic Information Form, RSA, Adult PARQ Mother, Adult PARQ Father, and BSI-44 respectively. After BSI-44, the participants encountered the page that indicates “Your response has been saved”. The data was collected between March and April 2023.

**3.3.3 Data analysis procedures.** After data was obtained, all the data was downloaded from Google Documents as an Excel file. Since the scoring of PARQ Mother and PARQ Father was done on the instruments’ online system of Parscore6, scores of these scales were registered to this system. The only instruments that contained missing data were PARQ Mother and PARQ Father and the system of Parscore6 automatically filled the missing data by attaining the average value of the missing item. Subsequently, all the data was transported to Statistical Package for

Social Sciences (SPSS) 29.0 from Excel. To prepare the data for analysis, variables of demographic questions and scales were named and coded, for scales, coding was done according to the specific scoring systems of the scales. The scores of the scales with multiple subscales were also analyzed to investigate their relationships with other variables. Outliers were observed by detecting extreme values and boxplot results in the scales. In this sense, 7 participants were specified as outliers and before they were excluded, normality tests and necessary analysis were done to understand whether it was necessary to exclude these participants. However, to provide normal distribution and carry out the requirements of analyses, 7 outliers were not included in the analysis. Before the variables were tested, normality tests of the scales were run in accordance with the cumulative scores. Shapiro-Wilk, Kolmogorov-Smirnov tests and skewness, and kurtosis values were analyzed for normality. According to the results of Shapiro-Wilk and Kolmogorov Smirnov tests, the data was not normally distributed. Nonetheless, skewness values of the scales varied between -.201 and 1.946 while kurtosis values of the scales varied between -.088 and 3.101. According to Kim (2013), for sample sizes larger than 300, absolute skew values larger than 2 and absolute kurtosis values larger than 7 may be considered as not normally distributed. In this sense, the variables that were used in this study showed normal distribution. Moreover, assumptions that are necessary for regression analysis were checked and according to the results, it was found appropriate to run linear regression.

Following these analyses, the reliability and validity scores of predictor and criterion variables were provided. In terms of reliability analysis, Cronbach's alpha values were analyzed for scales and subscales. Also, to analyze the construct validity of the scales, Confirmatory Factor Analysis (CFA) was used in Jamovi 2.3.21. Demographic variables' descriptive statistics and frequency distribution were analyzed to obtain information about the features of the participants. Pearson Correlation Analyses were done to check H<sub>4</sub> and investigate the associations between scales, subscales, and demographic variables. To analyze the relationship between demographic variables and dependent variable, One-Way ANOVA and Independent Samples T-Tests were run. Subsequently, Simple and Multiple Linear Regression Analyses were done to test the H<sub>1</sub>, H<sub>2</sub>, and H<sub>5</sub>. Lastly, for Mediation Analyses, PROCESS v4.2 by Hayes was used to test H<sub>3</sub> and H<sub>6</sub>.

**3.3.4 Reliability and validity.** The reliability of the scales in the current study was provided through values of internal consistency (Table 3). In studies, Cronbach's alpha score larger than 0.6 was interpreted as acceptable (Daud et al., 2018; Griethuijsen et al., 2014).

In this study, the overall alpha value of PARQ Mother was .95, for its subscales, the alpha value was .90 for warmth and affection, .82 for indifference and neglect, .84 for hostility and aggression, and .88 for undifferentiated rejection. Similarly, the overall alpha value was .95 for PARQ Father. For the subscales, the alpha values were found .93 for warmth and affection, .87 for indifference and neglect, .85 for hostility and aggression, and .89 for undifferentiated rejection. In both PARQ Mother and PARQ Father, the scores of the subscale of warmth and affection were reversely coded. For RSA, the overall score of alpha was found .87 and its subscales scores were .69 for perception of self, .70 for perception of future, .63 for structured style, .68 for social competence, .79 for family cohesion, and .72 for social resources. In this scale, to provide internal consistency, 3 items (item 3, item 6, and item 10) were discarded. The overall alpha score of BSI-44 was found .91.

Table 3

*Internal Consistencies*

Scale	Cronbach's $\alpha$
PARQ Mother Total	.95
Warmth and Affection	.90
Indifference and Neglect	.82
Hostility and Aggression	.84
Undifferentiated Rejection	.88
PARQ Father Total	.95
Warmth and Affection	.93
Indifference and Neglect	.87

Table 3 (cont.d)

Hostility and Aggression	.85
Undifferentiated Rejection	.89
RSA Total	.87
Perception of Self	.69
Perception of Future	.70
Structured Style	.63
Social Competence	.68
Family Cohesion	.79
Social Resources	.72
BSI-44 Total	.91

---

*Note.* PARQ Mother = Parental Acceptance-Rejection Questionnaire Mother, PARQ Father = Parental Acceptance-Rejection Questionnaire Father, RSA = Resilience Scale for Adults, BSI-44 = Bradford Somatic Inventory-44.

The validity of the scales was analyzed by assessing the values of Chi-square divided by degrees of freedom ( $\chi^2/df$ ), Comparative Fit Index (CFI), Tucker-Levis Index (TLI), Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA) in CFA. According to Hooper and colleagues (2008), the acceptable ratio for the value of Chi-square divided by degrees of freedom ( $\chi^2/df$ ) varies considering studies. Wheaton and colleagues (2014) assessed this value as reasonable when the ratio is around 5.0 or lower than 5.0. For the value of CFI at least .90 is perceived as acceptable (Hooper et al., 2008). According to Little (2013), CFI value of .90+ shows an acceptable fit. Also, Little indicated that the value of TLI also is acceptable when it is .90+ (2013). According to Hu and Bentler (1999), a value of SRMR lower than .08 is acceptable. According to Browne and Cudeck (1992), a value of RMSEA less than .08 would be appropriate. Moreover, Cangur and Ercan (2015) specified that the value of RMSEA lower than .05 signifies a

convergence fit, the value between .05 and .08 signifies close to a good fit, and the value between .08 and .10 signifies a fit that is not good but also not bad.

According to the analyses, the values of  $x^2/df$  (2.55), CFI (.92), TLI (.91), SRMR (.04), and RMSEA (.06) of PARQ Mother showed a good fit. The values of  $x^2/df$  (3.24), CFI (.91), TLI (.89), SRMR (.05), and RMSEA (.08) may be considered as in this study, PARQ Father indicated acceptable fit. Similarly, the values of  $x^2/df$  (2.59), CFI (.79), TLI (.76), SRMR (.07), and RMSEA (.06) of RSA were close to the acceptable fit. Also, the values of  $x^2/df$  (1.95), CFI (.74), TLI (.73), SRMR (.05), and RMSEA (.05) of BSI-44 were close to the acceptable fit (Table 4).

Table 4

*Goodness of Fit Measures*

Scale	$x^2$	df	$x^2/df$	CFI	TLI	SRMR	RMSEA
PARQMother	628	246	2.55	.92	.91	.04	.06
PARQFather	798	246	3.24	.91	.89	.05	.08
RSA	1011	390	2.59	.79	.76	.07	.06
BSI-44	1759	902	1.95	.74	.73	.05	.05

*Note.*  $x^2$  = Chi Square, df = Degrees of Freedom,  $x^2/df$  = Chi Square / Degrees of Freedom, CFI = Comparative Fit Index, TLI = Tucker-Lewis Index, SRMR = Standardized Root Mean Square Residual, RMSEA = Root Mean Square Error of Approximation, PARQMother = Parental Acceptance-Rejection Questionnaire Mother, PARQFather = Parental Acceptance-Rejection Questionnaire Father, RSA = Resilience Scale for Adults, BSI-44 = Bradford Somatic Inventory-44.

### 3.4 Limitations

This research has some limitations that should be taken into consideration while evaluating the findings. In this research, the sampling technique was determined as multistage cluster sampling since reaching the participants was based on steps. In

this study, it was aimed to reach many different participants from different places, and reaching all the participants directly was not convenient. Therefore, the participants were reached by contacting academicians and asking them to share the current study with their students. Even though random sampling was used while selecting universities in Turkey and sending e-mails to all academicians who are registered on the universities' websites, this issue may lead to not reaching all possible participants from different universities, majors, and years in the university and reaching many participants with the same characteristics. In demographic questions, the participants' university, major, and year in the university were not asked, and whether the participants from which university, major, or year could not be determined. If the participants could not show diversity in these characteristics, this may influence external validity negatively. As another threat, in the study, although having equal numbers of participants for each group was not possible by random sampling, the groups in demographic variables did not have the same number of participants, therefore, the data may not be thoroughly adequate for comparison between demographic variables and somatic symptoms.

This study was correlational research, hence, the findings of the study could not achieve causality. Moreover, the research design was based on a cross-sectional study and the participants were required to recall their childhood experiences. Even though the maximum age in the study was not so high to create an extensive gap between childhood and adulthood, memories may change or deteriorate. Considering the variables that were measured in this study, a longitudinal study is required to evaluate parental attitudes, somatic symptoms, and psychological resilience continually, and more comprehensively. Furthermore, this study was based on self-report, as the nature of this technique, even though the participants' information was kept confidential, the items might be responded to according to social desirability. On the other hand, since the participants participated in the study online, it cannot be known how the instruments responded or whether the items were clear enough for the participants. Moreover, some feedback from the participants indicated that the items in the study were too long; this may lead the participants to respond to the items inattentively. As a result, these circumstances may influence the accuracy of the responses.

In CFA, even though the scores of the instruments of RSA and BSI-44 showed an acceptable fit in  $\chi^2/df$ , SRMR, and RMSEA, they could not meet the cut-off values in CFI and TLI. Since the other values met the criteria, the instruments were interpreted as close to an acceptable fit. Moreover, in Resilience Scale for Adults, 3 items from 3 different subscales (Structured Style, Social Competence, and Social Resources) were discarded to provide internal consistency. After this process, alpha values of Structured Style and Social Competence were relatively low. Therefore, this may lead to measuring these subscales not adequately. These should be taken into consideration while interpreting the results.

At the beginning of the study, the inclusion criteria contained the individuals who grew up with only a mother or only a father as well. However, the reliability and validity of the Turkish version of the Parental Acceptance-Rejection Questionnaire were done by using the two questionnaires (PARQ Mother, PARQ Father) together. In this sense, the participants who did not grow up with both mother and father could not be included in the study to use the instrument with the same sample that was done in psychometric assessments. Even though this was not linked to the findings of the study, different exclusion criteria that was not mentioned before was used in this study. In addition, in the demographic questionnaire, the duration of psychotherapy, type of chronic illness, and number of cigarettes smoked per day were asked of the participants. These questions were optional to answer, and due to vagueness and a minority of the answers, these variables could not be added to the analyses.

## Chapter 4

### Findings

In this chapter, descriptive statistics, correlation analyses, group differences analyses, multiple linear regression analyses, simple linear regression analyses, and mediation analyses are presented.

#### 4.1 Descriptive Statistics

The instruments' means, standard deviations, and minimum and maximum scores are provided (Table 5). For PARQ Mother and PARQ Father, the total score was obtained by taking the average scores of all four subscales separately and calculating their sum. As a result,  $M = 6.25$  for PARQ Mother and  $M = 7.87$  for PARQ Father. Similarly, the overall score of RSA was calculated by taking the average scores of its six subscales and calculating their sum. The average score of RSA was  $M = 21.12$ . The total score of BSI-44 was calculated by summing all scores and the mean was calculated according to the sample and the mean score of BSI-44 was found as  $M = 28.61$ .

Table 5

*Mean, SD, Min., and Max. Values of PARQ Mother, PARQ Father, RSA, and BSI-44.*

Variable	M	SD	Min.	Max.
PARQ Mother	6.25	2.36	4.00	14.13
PARQ Father	7.87	1.43	4.50	12.88
RSA	21.12	3.43	11.6	28.7
BSI-44	28.61	17.1	0.00	80.0

*Note.* M = Mean, SD = Standard Deviation, Min. = Minimum, Max. = Maximum, PARQ Mother = Parental Acceptance-Rejection Questionnaire Mother, PARQ Father = Parental Acceptance-Rejection Father, RSA = Resilience Scale for Adults, BSI-44 = Bradford Somatic Inventory-44.

## 4.2 Correlation Analyses

In Hypothesis 4, it was claimed that there will be a significant relationship between parental psychological maltreatment, adulthood somatic symptoms, and psychological resilience. To test this, Pearson Correlation was done between predictor variables (parental psychological maltreatment during childhood and psychological resilience) and criterion variable (adulthood somatic symptoms). Moreover, Pearson Correlation was done to examine the strength and direction of the relationship between subscales. According to Dancey and Reidy (2007), the correlation between .1 and .3 refers to weak, .4 and .6 refers to moderate, and .7 and .9 refers to a strong correlation. The results indicated that there was a significant positive relationship between parental psychological maltreatment during childhood and adulthood somatic symptoms. This finding indicated that as psychological maltreatment by parents increases, adulthood somatic symptoms increase. On the other hand, there was a negative significant relationship between parental psychological maltreatment during childhood and psychological resilience. Namely, as psychological maltreatment increases, one's psychological resilience decreases. Similarly, a negative significant relationship between psychological resilience and adulthood somatic symptoms was found. Therefore, psychological resilience increases, adulthood somatic symptoms decrease. There were weak significant correlations between maternal psychological maltreatment and adulthood somatic symptoms ( $r = .28, p < .01$ ) and paternal psychological maltreatment and adulthood somatic symptoms ( $r = .25, p < .01$ ). Maternal psychological maltreatment showed negative and moderate correlation with psychological resilience ( $r = .47, p < .01$ ) and similarly, paternal psychological maltreatment showed negative and moderate correlation with psychological resilience ( $r = .50, p < .01$ ). Between adulthood somatic symptoms and psychological resilience, weak and negatively significant correlation was found ( $r = -.19, p < .01$ ). In conclusion, according to findings, Hypothesis 4 was supported.

Table 6

*Pearson Correlations between the scales of PARQ Mother, PARQ Father, RSA, and BSI-44.*

Variable	PARQ Mother	PARQ Father	BSI-44	RSA
PARQ Mother	1			
PARQ Father	.53*	1		
BSI-44	.28*	.25*	1	
RSA	-.47*	-.50*	-.19*	1

*Note.* PARQ Mother = Parental Acceptance-Rejection Mother, PARQ Father = Parental Acceptance-Rejection Father, BSI-44 = Bradford Somatic Inventory-44, RSA = Resilience Scale for Adults, \* $p < .01$ .

Table 7

*Pearson Correlations between the subscales of PARQ Mother and RSA.*

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.WarmthAffect	1									
2.HostiAggression	.71**	1								
3.IndiffereNeglect	.76**	.68**	1							
4.UndiffeRejection	.72**	.81**	.72**	1						
5.PerceptionSelf	-.28**	-.21**	-.19**	-.20**	1					
6.PerceptFuture	-.26**	-.16**	-.15**	-.15**	.59**	1				
7.StructStyle	-.19**	-.15**	-.14**	-.13*	.36**	.42**	1			
8.SocialCompet	-.20**	-.11**	-.13*	-.10	.37**	.26**	.04	1		
9.FamilyCohesi	-.56**	-.48**	-.49**	-.48**	.32**	.25**	.25**	.22**	1	
10.SocialResour	-.42**	-.34**	-.33**	-.34**	.43**	.43**	.23**	.46**	.57**	1

*Note.* PARQ Mother = Parental Acceptance-Rejection Mother and RSA = Resilience Scale for Adults, WarmthAffecti = Warmth and Affection, HostiAggression = Hostility and Aggression, IndiffereNeglect = Indifference and Neglect, UndiffeRejection = Undifferentiated Rejection, PerceptionSelf = Perception of Self, PerceptFuture = Perception of Future, StructStyle = Structured Style, SocialCompet = Social Competence, FamilyCohesi = Family Cohesion, SocialResour = Social Resources, \* $p < .05$ , \*\* $p < .01$ .

Table 8

*Pearson Correlations between the subscales of PARQ Father and RSA.*

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.WarmthAffecti	1									
2.HostiAggression	.65**	1								
3.IndiffereNeglect	.80**	.63**	1							
4.UndiffeRejection	.68**	.77**	.71**	1						
5.PerceptionSelf	-.27**	-.13*	-.20**	-.15**	1					
6.PerceptFuture	-.25**	-.11*	-.15**	-.08	.59**	1				
7.StructStyle	-.18**	-.10*	-.16**	-.10	.36**	.42**	1			
8.SocialCompet	-.29**	-.17**	-.21*	-.18**	.37**	.26**	.04	1		
9.FamilyCohesi	-.58**	-.49**	-.56**	-.50**	.32**	.25**	.25**	.22**	1	
10.SocialResour	-.43**	-.34**	-.39**	-.33**	.43**	.43**	.23**	.46**	.57**	1

*Note.* PARQ Father = Parental Acceptance-Rejection Father and RSA = Resilience Scale for Adults, WarmthAffecti = Warmth and Affection, HostiAggression = Hostility and Aggression, IndiffereNeglect = Indifference and Neglect, UndiffeRejection = Undifferentiated Rejection, PerceptionSelf = Perception of Self, PerceptFuture = Perception of Future, StructStyle = Structured Style, SocialCompet = Social Competence, FamilyCohesi = Family Cohesion, SocialResour = Social Resources, \* $p < .05$ , \*\* $p < .01$ .

Table 9

*Pearson Correlations between the subscales of PARQ Mother and PARQ Father.*

Variables	1.	2.	3.	4.	5.	6.	7.	8.
PARQ Mother								
1.Warmth Affection	1							
2.Hostility Aggression.	.71**	1						
3.Indifference Neglect.	.76**	.68**	1					
4.Undifferen. Rejection.	.72**	.81**	.72**	1				
PARQ Father								
5.Warmth Affection	.49**	.37**	.39**	.37**	1			
6.Hostility Aggression.	.38**	.49**	.44**	.46**	.65**	1		
7.Indifference Neglect.	.42**	.40**	.47**	.43**	.80**	.63**	1	
8.Undifferen. Rejection.	.36**	.41**	.39**	.50**	.68**	.77**	.71**	1

*Note.* PARQ Mother = Parental Acceptance-Rejection Mother and PARQ Father = Parental Acceptance-Rejection Father, \* $p < .05$ , \*\* $p < .01$ .

### 4.3 Group Differences

To investigate the effects of the participants' age, psychotherapy status, income, and place they mostly lived on adulthood somatic symptoms, which was a criterion variable in this study, One-Way ANOVA was used. According to age groups, no significant difference was found in adulthood somatic symptoms  $F(2,329) = 1.15$ ,  $p = .316$ . Moreover, in accordance with the results, psychotherapy groups did not create any significant difference on adulthood somatic symptoms  $F(2,329) = 3.03$ ,  $p = .049$ . Furthermore, there was no significant difference between the groups of income levels in adulthood somatic symptoms  $F(5,326) = .49$ ,  $p = .779$ . There were no statistically significant group differences between the groups of places that mostly

lived in adulthood somatic symptoms  $F(2,329) = .033, p = .968$ . It should be noted that in One-Way ANOVA analyses, the number of participants between groups was not equally distributed, this may influence the analyses, therefore the accuracy of the findings. In this sense, future studies are necessary to achieve more accurate results.

Independent Samples T-Test was used to compare the differences between the groups of gender, having trusted one, smoking status, chronic illness, psychiatric medication usage, and mental disorder diagnosis in terms of adulthood somatic symptoms. There was a significant difference between gender groups on adulthood somatic symptoms  $t(330) = 4.17, p < .001$ . According to the results, females ( $M = 30.30, SD = 16.83$ ) had higher scores on adulthood somatic symptoms compared to males ( $M = 19.93, SD = 15.94$ ). In terms of adulthood somatic symptoms, there were no significant group differences found between having and not having trusted one  $t(330) = -.379, p = .705$ . Furthermore, the results indicated that there was a statistically significant difference between the groups of smoking  $t(329) = 2.22, p = .02$ . The participants who were smoking ( $M = 32.23, SD = 17.04$ ) had higher scores on adulthood somatic symptoms compared to the participants who were not smoking ( $M = 27.40, SD = 17.00$ ). According to the comparison among the groups of chronic illness, there was a significant difference between having and not having chronic illness  $t(330) = 4.20, p < .001$ . The participants with chronic illness had higher scores on adulthood somatic symptoms ( $M = 38.74, SD = 16.77$ ) than the participants who did not have any chronic illness ( $M = 27.15, SD = 16.67$ ). Moreover, the findings presented that there was no statistically significant difference between the groups of using psychiatric medication and not using psychiatric medication  $t(330) = 1.15, p = .249$ . Lastly, there was a statistically significant difference between the groups of mental disorder diagnosis  $t(26.64) = 3.05, p = .005$ . The participants with a mental disorder diagnosis ( $M = 36.29, SD = 11.42$ ) had higher scores on adulthood somatic symptoms compared to the participants with no mental disorder diagnosis ( $M = 28.10, SD = 17.31$ ). While interpreting these results, it should be taken into consideration that the number of participants in the groups was not equally distributed. Due to this inequality, these results may not be conclusive. Further analyses are required to achieve more representative findings.

Besides these tests, the participants' degree of somatic symptoms was grouped into low, moderate, and high ranges as it was suggested. The results presented that the scores of most of the participants, namely 45%, were in the low range, subsequently, 28.6% of the participants were in the middle range, and lastly, 25.9% of them were in the high range.

Table 10

*Demographic Differences in Adulthood Somatic Symptoms*

	Adulthood Somatic Symptoms		<i>p</i>
	Mean (SD)		
Age Group	18-21	27.68 (16.96)	.31
	22-25	30.35 (17.06)	
	26-30	31.90 (18.70)	
Psychotherapy	Currently receiving	37.63 (19.37)	.049
	Received in the past	34.36 (15.51)	

Table 10 (cont.d)

	Not received	27.83 (17.07)	
Place Mostly Lived	City	28.42 (16.18)	.96
	Town	28.80 (18.52)	
	Village	29.04 (18.06)	
Income	0 – 2.000 TL	26.67 (20.33)	.77
	2.000 – 5.000 TL	28.62 (18.67)	
	5.000 – 10.000 TL	28.64 (17.64)	
	10.000 – 20.000 TL	29.65 (16.65)	

Table 10 (cont.d)

	20.000 – 50.000 TL	26.10 (14.63)	
	50.000 TL – above	34.00 (15.65)	
Gender	Female	30.30 (16.83)	
	Male	19.93 (15.94)	.001***
Trusted One	Yes	28.48 (16.98)	
	No	29.59 (18.18)	.70
Smoking	Yes	32.23 (17.04)	
	No	27.40 (17.00)	.02*
Chronic Illness	Yes	38.74 (16.77)	
	No	27.15 (16.67)	.001***
Psychiatric Medication	Yes	33.60 (12.39)	
	No	28.38 (17.27)	.24
Mental Health Diagnosis	Yes	36.29 (11.42)	
	No	28.10 (17.31)	.005**

Note. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

#### 4.4 Regression Analyses

Multiple Linear Regression was used to test Hypothesis 1 and Hypothesis 5 while Simple Linear Regression was used to test Hypothesis 2. Moreover, Simple Linear Regression was used for Hypothesis 6 to prepare the data for mediation analysis. In this study, Simple and Multiple Linear Regression analyses were also used for the subscales of PARQ Mother (i.e., undifferentiated rejection, hostility and aggression), PARQ Father (i.e., undifferentiated rejection, hostility and aggression, and indifference and neglect), and RSA (i.e., family cohesion and perception of self)

and total BSI-44 to understand the mediator effects of subscales on the relationship between subscales predictor and criterion variables. Meaningful results could not be achieved with subscales other than those mentioned below (i.e., warmth and affection of PARQ Mother and PARQ Father, indifference and neglect of PARQ Mother, and perception of future, structured style, social competence, and social resources of RSA). The results with significant conclusions were provided in the Regression and Mediation Analyses sections.

According to Hypothesis 1, it was claimed that parental psychological maltreatment will positively predict adulthood somatic symptoms. To test this hypothesis, predictor variables of parental psychological maltreatment (maternal and paternal) and criterion variable of adulthood somatic symptoms were used. Furthermore, according to Hypothesis 5, it was expected that parental psychological maltreatment will negatively predict psychological resilience. For this hypothesis, predictor variables of parental psychological maltreatment (i.e., maternal and paternal) and mediator variable, which was treated as criterion variable, psychological resilience were used. In Hypothesis 2, it was assumed that psychological resilience will negatively predict adulthood somatic symptoms, and psychological resilience was used as a predictor variable while adulthood somatic symptoms was criterion variable. In addition, Simple Linear Regression and Multiple Linear Regression were done between parental undifferentiated rejection dimension (i.e., subscales of PARQ Mother and PARQ Father), adulthood somatic symptoms, and family cohesion (i.e., a subscale of RSA) for mediation analysis to test Hypothesis 6, which assumed that family cohesion will mediate the relationship between parental undifferentiated rejection and adulthood somatic symptoms.

Before performing the analyses, regression analysis' necessary assumptions of linearity, multicollinearity, absence of outliers, homoscedasticity, normality of residuals, and independence of errors were checked for the analyses separately. The assumption of linearity was analyzed through residual plots. According to Nobre and Singer (2007), if the data is randomly distributed around the 0 axis, it refers to a linear relationship, in this study, the data was mostly distributed around the 0 axis. Multicollinearity was analyzed through the correlation between the variables and the Variance Inflation Factor (VIF). In terms of multicollinearity, the correlation between

variables ought to be less than .7, higher values may lead to inaccurate findings (Barton & Peat, 2014). In this study, the correlations between variables were less than .7. Moreover, according to Kim (2019), if VIF is larger than 5 to 10, multicollinearity occurs. In the current study, values of VIF were smaller than 5. The outliers were handled at the beginning of the data analysis procedure, however, in this step, it was checked again by Cook's distance. It was indicated that if the value of Cook's distance is larger than 1, it refers that there may be outliers (Tabachnick & Fidell, 2013). In this study, values of Cook's distance were smaller than 1. The normality of residuals was checked by histograms and normal P-P plots of residuals and the results indicated that residuals were normally distributed. The assumption of homoscedasticity was analyzed by scatterplots and as Flatt and Jacobs (2019) indicated, in this study, the points in the scatterplots nearly constituted a rectangular shape and most of the points were around 0. The assumption of independence of errors was checked by the Durbin-Watson value. According to Field (2013), if the Durbin-Watson value is 2, then the residuals are not correlated. In this study, the values were close to 2.

In Multiple Linear Regression to test Hypothesis 1, the results indicated that both maternal and paternal psychological maltreatment explained 9% of the variance in adulthood somatic symptoms ( $R^2_{\text{adjusted}} = .090$ ). The findings presented that the model was significant  $F(2, 329) = 17.46, p < .001$ . Specifically, the effect of maternal psychological maltreatment on adulthood somatic symptoms was positive and significant  $B = .261, SE = .075, p < .001$ . It was shown that an increase in one score on maternal psychological maltreatment will increase the score of adulthood somatic symptoms of .261. According to the results, when the effect of paternal psychological maltreatment was kept constant, the correlation between maternal psychological maltreatment and adulthood somatic symptoms was .189, while paternal psychological maltreatment was not kept constant, the correlation was .288. The effect of paternal psychological maltreatment on adulthood somatic symptoms was positive and significant  $B = .133, SE = .06, p < .032$ . Therefore, an increase in one score on paternal psychological maltreatment will lead to an increase in the score of adulthood somatic symptoms of .133. When the effect of maternal psychological maltreatment was kept constant, the correlation between paternal psychological maltreatment and adulthood somatic symptoms was .118, on the other hand, when maternal psychological maltreatment on adulthood somatic symptoms was not kept constant, the correlation

was .250. In accordance with the findings, Hypothesis 1 was supported, parental psychological maltreatment positively predicted adulthood somatic symptoms.

For Hypothesis 5, Multiple Linear Regression showed that both maternal and paternal psychological maltreatment explained 30.6% of the variance in psychological resilience ( $R^2_{\text{adjusted}} = .306$ ). It may be said that parental psychological maltreatment explained an important amount of the variance in psychological resilience. It was shown that the model was significant  $F(2,329) = 73.82, p < .001$ . Particularly, the effect of maternal psychological maltreatment on psychological resilience was negative and significant  $B = -.352, SE = .066, p < .001$ . Therefore, an increase in one score on maternal psychological maltreatment will decrease the score of psychological resilience of .352. When the effect of paternal psychological maltreatment was kept constant, the correlation between maternal psychological maltreatment and psychological resilience was  $-.283$ . On the other hand, when its effect was not kept constant, the correlation between maternal psychological maltreatment and psychological resilience was  $-.475$ . Moreover, the effect of paternal psychological maltreatment on psychological resilience was negative and significant  $B = -.344, SE = .054, p < .001$ . It showed that an increase in one score on paternal psychological maltreatment will decrease the score of psychological resilience of .344. The correlation between paternal psychological maltreatment and psychological resilience was  $-.330$  when the effect of maternal psychological maltreatment was kept constant while it was  $-.500$  when its effect was not kept constant. In light of the findings with maternal and paternal psychological maltreatment, parental psychological maltreatment negatively predicted psychological resilience and Hypothesis 5 was supported.

For Hypothesis 2, Simple Linear Regression indicated that psychological resilience explained 3.9% of the variance in adulthood somatic symptoms ( $R^2 = .039$ ). The results presented that the model was significant  $F(1,330) = 13.26, p < .001$ . The effect of psychological resilience on adulthood somatic symptoms was negative and significant  $B = -.195, SE = .054, p < .001$ . It means that an increase in one score on psychological resilience will decrease the adulthood somatic symptoms of .195. Therefore, psychological resilience negatively predicted adulthood somatic symptoms, and Hypothesis 2 was supported.

Table 11

*Parental Psychological Maltreatment predicted Adulthood Somatic Symptoms*

Predictor Variable	B	SE	$\beta$	$R^2$	$\Delta R^2$	F	t	p
PARQ Mother and PARQ Father → BSI-44				.096	.09	17.46		
(Constant)	12.93	2.8					4.61	< .001**
PARQ Mother	.261	.075	.217				3.48	< .001**
PARQ Father	.133	.062	.134				2.15	.032*

*Note.* PARQ Mother = Parental Acceptance-Rejection Mother, PARQ Father = Parental Acceptance-Rejection Father, BSI-44 = Bradford Somatic Inventory-44, B = Unstandardized Beta, SE = Standard Error,  $\beta$  = Beta coefficient,  $R^2$  = R square,  $\Delta R^2$  = Adjusted R square, F = F statistic, t = t statistic, \* $p$  < .05, \*\* $p$  < .001.

Table 12

*Parental Psychological Maltreatment predicted Psychological Resilience*

Predictor Variable	B	SE	$\beta$	$R^2$	$\Delta R^2$	F	t	p
PARQ Mother and PARQ Father → RSA				.31	.306	73.82		
(Constant)	134.2	2.47					54.33	< .001**
PARQ Mother	-.352	.066	-.29				-5.34	< .001**
PARQ Father	-.344	.054	-.344				-6.33	< .001**

*Note.* PARQ Mother = Parental Acceptance-Rejection Mother, PARQ Father = Parental Acceptance-Rejection Father, RSA = Resilience Scale for Adults, B = Unstandardized Beta, SE = Standard Error,  $\beta$  = Beta coefficient,  $R^2$  = R square,  $\Delta R^2$  = Adjusted R square, F = F statistic, t = t statistic, \*\* $p$  < .001.

Table 13

*Psychological Resilience predicted Adulthood Somatic Symptoms*

Predictor Variable	B	SE	$\beta$	$R^2$	$\Delta R^2$	F	t	p
RSA → BSI-44				.039	.036	13.26		
(Constant)	49.28	5.74					8.57	< .001**
RSA	-.195	.054	-.197				-3.64	< .001**

*Note.* RSA = Resilience Scale for Adults, BSI-44 = Bradford Somatic Inventory-44, B = Unstandardized Beta, SE = Standard Error,  $\beta$  = Beta coefficient,  $R^2$  = R square,  $\Delta R^2$  = Adjusted R square, F = F statistic, t = t statistic, \*\* $p < .001$ .

Simple Linear Regression was done to understand the effects between undifferentiated rejection dimension of PARQ Mother and PARQ Father, family cohesion subscale of RSA, and adulthood somatic symptoms. These analyses were used to analyze the assumptions of mediation analysis.

Firstly, Simple Linear Regression was done to predict a score on adulthood somatic symptoms from a score on maternal undifferentiated rejection. The results indicated that maternal undifferentiated rejection explained 5.9% of the variance in adulthood somatic symptoms ( $R^2 = .059$ ). The model was significant  $F(1,330) = 20.61$ ,  $p < .001$ , and the effect of maternal undifferentiated rejection on adulthood somatic symptoms was positive and significant  $B = 1.537$ ,  $SE = .339$ ,  $p < .001$ . Therefore, maternal undifferentiated rejection positively predicted adulthood somatic symptoms. Secondly, the findings presented that maternal undifferentiated rejection explained an important amount of the variance in family cohesion (23%,  $R^2 = .230$ ), and the model was significant  $F(1,330) = 98.67$ ,  $p < .001$ . The effect of maternal undifferentiated rejection on family cohesion was negative and significant  $B = -.932$ ,  $SE = .094$ ,  $p < .001$ . It was concluded that maternal undifferentiated rejection negatively predicted family cohesion. Thirdly, according to the findings, family cohesion explained 5.6% of the variance in adulthood somatic symptoms ( $R^2 = .056$ ). The results demonstrated that the model was significant  $F(1,330) = 19.72$ ,  $p < .001$ . The effect of family

cohesion on adulthood somatic symptoms was negative and significant  $B = -.775$ ,  $SE = .174$ ,  $p < .001$ . These findings signified that family cohesion negatively predicted adulthood somatic symptoms.

After regression analyses with maternal undifferentiated rejection, the same analyses were run with paternal undifferentiated rejection, family cohesion, and adulthood somatic symptoms.

First, Simple Linear Regression indicated that paternal undifferentiated rejection explained 3.3% of the variance in adulthood somatic symptoms ( $R^2 = .033$ ). According to the table, the model was significant  $F(1,330) = 11.42$ ,  $p < .001$ . The effect of the predictor variable on the criterion variable was positive and significant  $B = 1.043$ ,  $SE = .308$ ,  $p < .001$ . Therefore, paternal undifferentiated rejection positively predicted adulthood somatic symptoms. Second, according to the findings, paternal undifferentiated rejection explained 25.9% of the variance in family cohesion. It may be interpreted as paternal undifferentiated rejection did explain an important amount of the variance in family cohesion. The model was significant  $F(1,330) = 115.245$ ,  $p < .001$ , and the effect of paternal undifferentiated rejection on family cohesion was negative and significant  $B = -.889$ ,  $SE = .083$ ,  $p < .001$ . In accordance with the findings, paternal undifferentiated rejection negatively predicted family cohesion.

Simple Linear Regression was also used to investigate the effect of paternal hostility and aggression, which was the subscale of PARQ Father, on adulthood somatic symptoms and family cohesion. These analyses were run to check the assumptions of mediation analysis.

Initially, according to the findings, paternal hostility and aggression explained 4.4% of the variance in adulthood somatic symptoms ( $R^2 = .044$ ), and the model was significant  $F(1,330) = 15.3$ ,  $p < .001$ . The effect of paternal hostility and aggression on adulthood somatic symptoms was positive and significant  $B = .845$ ,  $SE = .216$ ,  $p < .001$ . It was concluded that paternal hostility and aggression positively predicted adulthood somatic symptoms. Secondly, the results remarkably presented that paternal hostility and aggression explained 24.1% of the variance in family cohesion ( $R^2 = .241$ ). The model was significant  $F(1,330) = 104.54$ ,  $p < .001$ , and the effect of paternal hostility and aggression on family cohesion was negative and significant  $B = -.603$ ,

SE = .059,  $p < .001$ . Therefore, paternal hostility and aggression negatively predicted family cohesion.

Simple Linear Regression was done between paternal indifference and neglect (subscale of PARQ Father), adulthood somatic symptoms, and family cohesion to check the assumptions of mediation analysis.

According to the results, firstly, paternal indifference and neglect explained 6.6% of the variance in adulthood somatic symptoms ( $R^2 = .066$ ), and the model was significant  $F(1,330) = 23.43$ ,  $p < .001$ . The effect of the predictor variable on the criterion variable was positive and significant  $B = .893$ ,  $SE = .184$ ,  $p < .001$ . Therefore, paternal indifference and neglect positively predicted adulthood somatic symptoms. Secondly, paternal indifference and neglect explained an important amount of the variance in family cohesion (31.3%,  $R^2 = .313$ ), and the model was significant  $F(1,330) = 150.417$ ,  $p < .001$ . The effect of paternal indifference and neglect on family cohesion was negative and significant  $B = -.595$ ,  $SE = .049$ ,  $p < .001$ . It was concluded that the predictor variable negatively predicted the mediator variable.

Simple Linear Regression was run between maternal hostility and aggression (subscale of PARQ Mother), adulthood somatic symptoms, and family cohesion to check the necessary assumptions for mediation analysis.

The findings indicated that maternal hostility and aggression explained 7.1% of the variance in adulthood somatic symptoms ( $R^2 = .071$ ), and the model was significant  $F(1,330) = 25.33$ ,  $p < .001$ . The effect of maternal hostility and aggression on adulthood somatic symptoms was positive and significant  $B = 1.149$ ,  $SE = .228$ ,  $p < .011$ . Therefore, maternal hostility and aggression predicted adulthood somatic symptoms. Subsequently, maternal hostility and aggression explained 23.4% of the variance in family cohesion ( $R^2 = .234$ ), and the model was significant  $F(1,330) = 100.6$ ,  $p < .001$ . The effect of maternal hostility and aggression on family cohesion was negative and significant  $B = -.637$ ,  $SE = .064$ ,  $p < .001$ . It was concluded that the predictor variable negatively predicted the mediator variable.

Simple Linear Regression was lastly run to investigate the mediator role of perception of self (subscale of RSA) in the relationship between paternal undifferentiated rejection and adulthood somatic symptoms.

First, in accordance with the findings of Simple Linear Regression, paternal undifferentiated rejection explained 2.3% of the variance in perception of self ( $R^2 = .023$ ). The model was significant  $F(1,330) = 7.606, p = .006$  and the effect of paternal undifferentiated rejection on perception of self was negative and significant  $B = -.233, SE = .084, p = .006$ . Therefore, paternal undifferentiated rejection negatively predicted perception of self. Second, perception of self explained 2.9% of the variance in adulthood somatic symptoms ( $R^2 = .029$ ), and the results presented that the model was significant  $F(1,330) = 9.736, p = .002$ . The effect of perception of self on adulthood somatic symptoms was negative and significant  $B = -.622, SE = .199, p = .002$ . In accordance with the results, perception of self negatively predicted adulthood somatic symptoms.

#### **4.5 Mediation Analyses**

In order to perform mediation analyses, Model 4 of PROCESS v4.2 by Andrew Hayes was used. The mediation analysis assumptions were the same as the assumptions for regression analysis (Hayes, 2022). To test Hypothesis 6, which assumed that family cohesion will mediate the relationship between parental undifferentiated rejection and adulthood somatic symptoms, maternal and paternal undifferentiated rejection were taken as the predictor variables, adulthood somatic symptoms was taken as the criterion variable and lastly, family cohesion was taken as mediator variable. According to Hayes (2022), mediation analysis with more than one X variable may lead them to show high correlation and counteract the effect of each other. Since the scales of PARQ Mother and PARQ Father  $r = .53$ , specifically maternal and paternal undifferentiated rejection had moderate correlation  $r = .5$  (Dancey & Reidy, 2007), in this study, they were analyzed separately. Moreover, after regression analyses, mediation analyses were done between parental hostility and aggression (predictor variables), family cohesion (mediator variable), and adulthood somatic symptoms (criterion variable), and between paternal indifference and neglect (predictor variable), family cohesion (mediator variable), and adulthood somatic symptoms (criterion variable), and lastly, between paternal undifferentiated rejection

(predictor variable), perception of self (mediator variable), and adulthood somatic symptoms (criterion variable).

According to Baron and Kenny (1986), to do mediation analysis, initially, in the first equation, the independent variable (IV) should have an effect on the mediator (M). Thereafter, the independent variable should have an effect on the dependent variable (DV) in the second equation. Subsequently, M should have an effect on DV in the third equation. Once these requirements are met, IV's effect on DV should decrease in the third equation compared to the second equation. When M is controlled and IV does not have an effect, it refers to perfect mediation. For Hypothesis 3, which defended that psychological resilience would mediate the relationship between parental psychological maltreatment and adulthood somatic symptoms, it was aimed to do mediation analysis with maternal and paternal psychological maltreatment as predictor variables, adulthood somatic symptoms as criterion variable, and psychological resilience as mediator variable. However, contrary to the findings that parental psychological maltreatment positively predicted adulthood somatic symptoms, psychological resilience negatively predicted adulthood somatic symptoms, and parental psychological maltreatment negatively predicted psychological resilience, when testing the effects of parental psychological maltreatment and psychological resilience together on adulthood somatic symptoms, psychological resilience did not show significant effect. In general, the model was significant  $F(3,328) = 11.74, p < .001$ , and the effect of maternal psychological maltreatment on adulthood somatic symptoms was positive and significant  $B = .247, SE = .078, p = .002$ . Yet, the effects of paternal psychological maltreatment  $B = .120, SE = .065, p = .068$ , and psychological resilience  $B = -.039, SE = .063, p = .539$  were nonsignificant. Therefore, since the mediator variable was nonsignificant, mediation analysis could not be performed, and Hypothesis 3 was not supported.

In light of mediation analysis assumptions, family cohesion could not show a mediator effect in the relationship between maternal indifference and neglect and adulthood somatic symptoms since in the second equation, the effect of maternal indifference and neglect on adulthood somatic symptoms  $B = 1.372, SE = .250, p < .001$  was significant. However, in the presence of family cohesion, namely in the third equation, the effect of IV on DV  $B = 1.080, SE = .285, p < .001$  remained the same.

Moreover, perception of self could not show a mediator effect in the relationship between maternal undifferentiated rejection and adulthood somatic symptoms. In the second equation, the effect of maternal undifferentiated rejection on adulthood somatic symptoms  $B = 1.537$ ,  $SE = .339$ ,  $p = < .001$  was significant and in the third equation, its effect in the presence of perception of self  $B = 1.377$ ,  $SE = .343$ ,  $p = < .001$  remained the same. To perform mediation analyses, the effects of IVs should have decreased. Therefore, mediation analyses between these variables could not be performed.

In terms of Hypothesis 6, as previously mentioned, regression analyses provided the necessary assumptions for mediation analysis. According to Hayes (2022), when the confidence interval includes zero, it may be inferred that the effect is nonsignificant. At first, the mediator role of family cohesion on the relationship between maternal undifferentiated rejection and adulthood somatic symptoms was analyzed. According to the results, the effect of maternal undifferentiated rejection was negative and significant on family cohesion (Path  $a$ )  $B = -.932$ ,  $SE = .094$ , 95% CI [-1.11, -.748]. The effect of family cohesion was negative and significant on adulthood somatic symptoms (Path  $b$ )  $B = -.513$ ,  $SE = .197$ , 95% CI [-.901, -.126]. Maternal undifferentiated rejection, ignoring the mediator of family cohesion, was a significant direct predictor on adulthood somatic symptoms (Path  $c'$ )  $B = 1.059$ ,  $SE = .38$ , 95% CI [.306, 1.81]. The indirect effect of maternal undifferentiated rejection through family cohesion on adulthood somatic symptoms was significant  $B = .479$ ,  $SE = .19$ , 95% CI [.103, .852]. According to Ballen and Salehi (2021), if IV has an effect on DV both directly and indirectly, M partially mediates the relationship. On the other hand, if IV has an effect on DV merely through M, M fully mediates the effect of IV on DV. Moreover, Hayes (2022) indicated that if  $c'$  (direct effect of X on Y) is closer to zero compared to  $c$  (total effect of X on Y) and  $c'$  is nonsignificant, M completely mediates the relationship. In this study, family cohesion partially mediated the relationship between maternal undifferentiated rejection and adulthood somatic symptoms since even though  $c'$  (1.059) was closer to zero than  $c$  (1.537), maternal undifferentiated rejection pursued its significant effect on adulthood somatic symptoms in the presence of family cohesion.

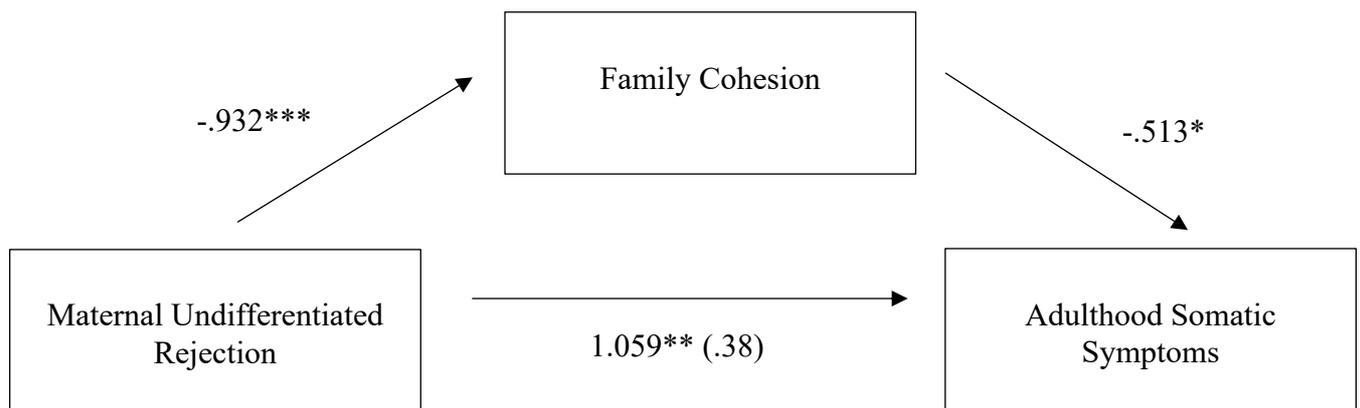


Figure 3. The mediator role of Family Cohesion on the relationship between Maternal Undifferentiated Rejection and Adulthood Somatic Symptoms.

Note. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

Table 14

The Mediator Role of Family Cohesion on the Relationship between Maternal Undifferentiated Rejection and Adulthood Somatic Symptoms

Path	B	SE	95% CI		<i>t</i>	<i>p</i>
			L	U		
M. U. R.→Family C.	-.932	.094	-1.11	-.748	-9.93	.00***
Family C.→BSI-44	-.513	.197	-.901	-.126	-2.60	.010*
Total Effect						
(M. U. R. on BSI-44)	1.537	.339	.871	2.20	4.54	.00***
Direct Effect						
(M. U. R. on BSI-44)	1.059	.38	.306	1.81	2.76	.006**

Table 14 (cont.d)

Indirect Effect

(M. U. R. on BSI-44

via Family C.)            .479    .19                    .103    .852

---

*Note.* M. U. R. = Maternal Undifferentiated Rejection, Family C. = Family Cohesion, BSI-44 = Bradford Somatic Inventory-44, B = Beta coefficient, SE = Standard Error, CI = Confidence Interval, L = Lower, U = Upper,  $t = t$  statistic, \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

After the mediation analysis with maternal undifferentiated rejection, the mediator role of family cohesion in the relationship between paternal undifferentiated rejection and adulthood somatic symptoms was analyzed. According to the findings, the effect of paternal undifferentiated rejection on family cohesion was negative and significant (Path  $a$ )  $B = -.889$ ,  $SE = .083$ , 95% CI [-1.052, -.726]. The effect of family cohesion on adulthood somatic symptoms was also negative and significant (Path  $b$ )  $B = -.636$ ,  $SE = .202$ , 95% CI [-1.034, -.238]. Paternal undifferentiated rejection, when ignoring family cohesion, was not a significant direct predictor on adulthood somatic symptoms (Path  $c'$ )  $B = .478$ ,  $SE = .354$ , 95% CI [-.218, 1.173]. The indirect effect of paternal undifferentiated rejection through the mediator effect of family cohesion on adulthood somatic symptoms was significant  $B = .565$ ,  $SE = .19$ , 95% CI [.205, .950]. It was concluded that family cohesion completely mediated the relationship between paternal undifferentiated rejection and adulthood somatic symptoms since  $c'$  (.478) was closer to zero than  $c$  (1.043) and in the presence of family cohesion,  $c'$  was nonsignificant. Both these mediation analyses presented that Hypothesis 6 was partially supported.

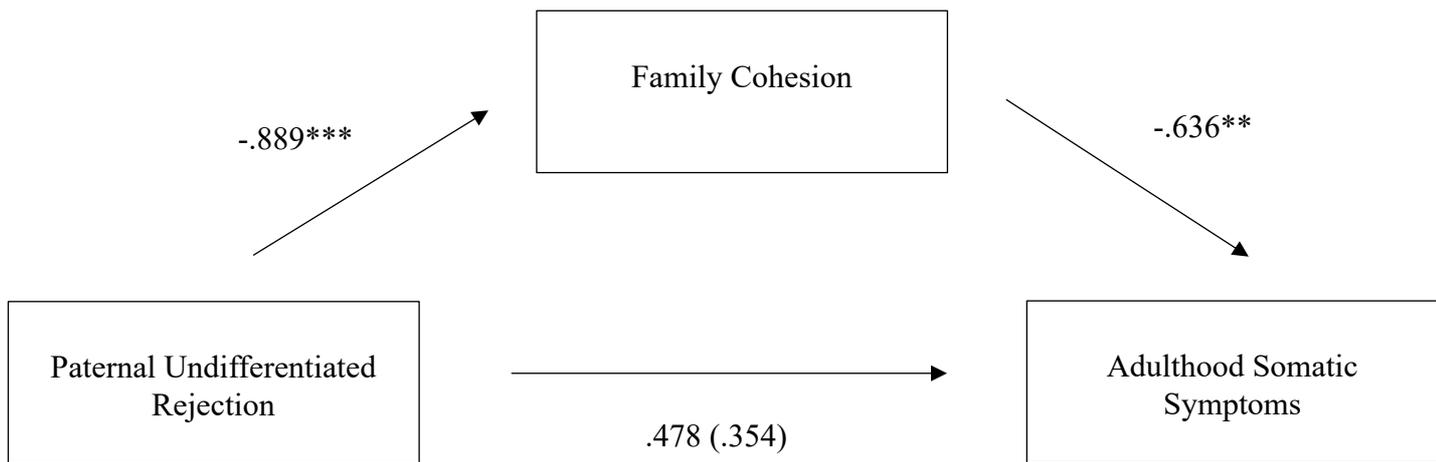


Figure 4. The mediator role of Family Cohesion on the relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms.

Note. \*\*\* $p < .001$ , \*\* $p < .01$ .

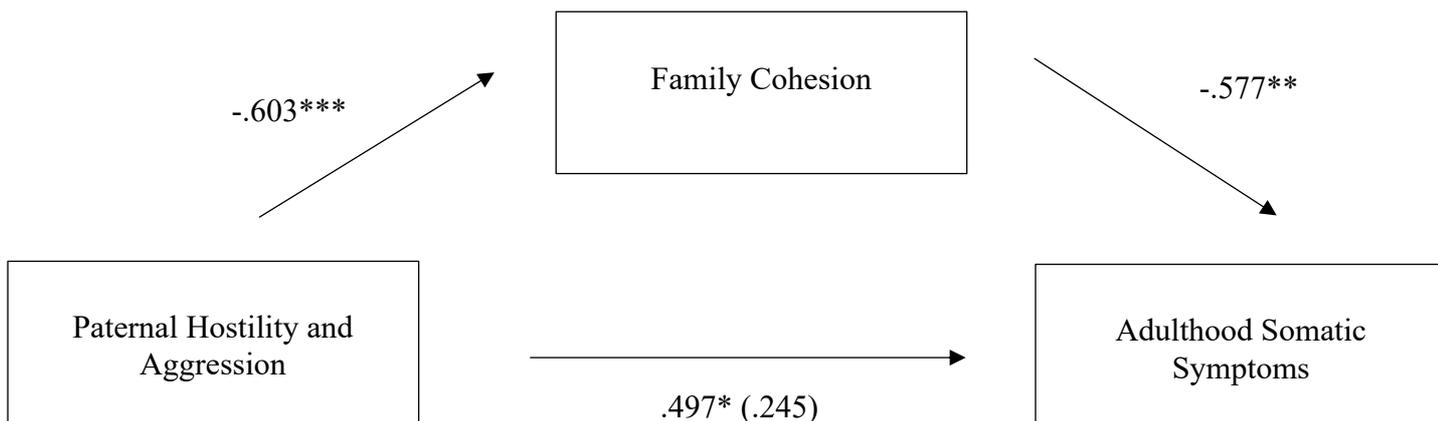
Table 15

The Mediator Role of Family Cohesion on the Relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms

Path	B	SE	95% CI		<i>t</i>	<i>p</i>
			L	U		
P. U. R. → Family C.	-.889	.083	-1.052	-.726	-10.73	.00***
Family C. → BSI-44	-.636	.202	-1.034	-.238	-3.14	.002**
Total Effect						
(P. U. R. on BSI-44)	1.043	.308	.436	1.65	3.38	.001**
Direct Effect						
(P. U. R. on BSI-44)	.478	.354	-.218	1.173	1.35	.178
Indirect Effect						
(P. U. R. on BSI-44 via Family C.)	.565	.19	.205	.950		

*Note.* P. U. R. = Paternal Undifferentiated Rejection, Family C. = Family Cohesion, BSI-44 = Bradford Somatic Inventory-44, B = Beta coefficient, SE = Standard Error, CI = Confidence Interval, L = Lower, U = Upper,  $t = t$  statistic, \*\*\* $p < .001$ , \*\* $p < .01$ .

After the findings of the regression analyses, the mediator role of family cohesion on the relationship between paternal hostility and aggression and adulthood somatic symptoms was investigated. The findings presented that the effect of paternal hostility and aggression on family cohesion was negative and significant (Path  $a$ )  $B = -.603$ ,  $SE = .059$ , 95% CI  $[-.719, -.487]$ . The effect of family cohesion on adulthood somatic symptoms was negative and significant (Path  $b$ )  $B = -.577$ ,  $SE = .199$ , 95% CI  $[-.969, -.185]$ . Paternal hostility and aggression, ignoring family cohesion, was a significant direct predictor (Path  $c'$ )  $B = .497$ ,  $SE = .245$ , 95% CI  $[.015, .979]$ . Through the mediator role of family cohesion, the indirect effect of paternal hostility and aggression on adulthood somatic symptoms was significant  $B = .348$ ,  $SE = .127$ , 95% CI  $[.109, .610]$ . It was concluded that family cohesion partially mediated the relationship between paternal hostility and aggression and adulthood somatic symptoms since the predictor variable pursued its effect on adulthood even though  $c'$  (.497) was closer to zero than  $c$  (.845).



*Figure 5.* The mediator role of Family Cohesion on the relationship between Paternal Hostility and Aggression and Adulthood Somatic Symptoms.

*Note.* \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

Table 16

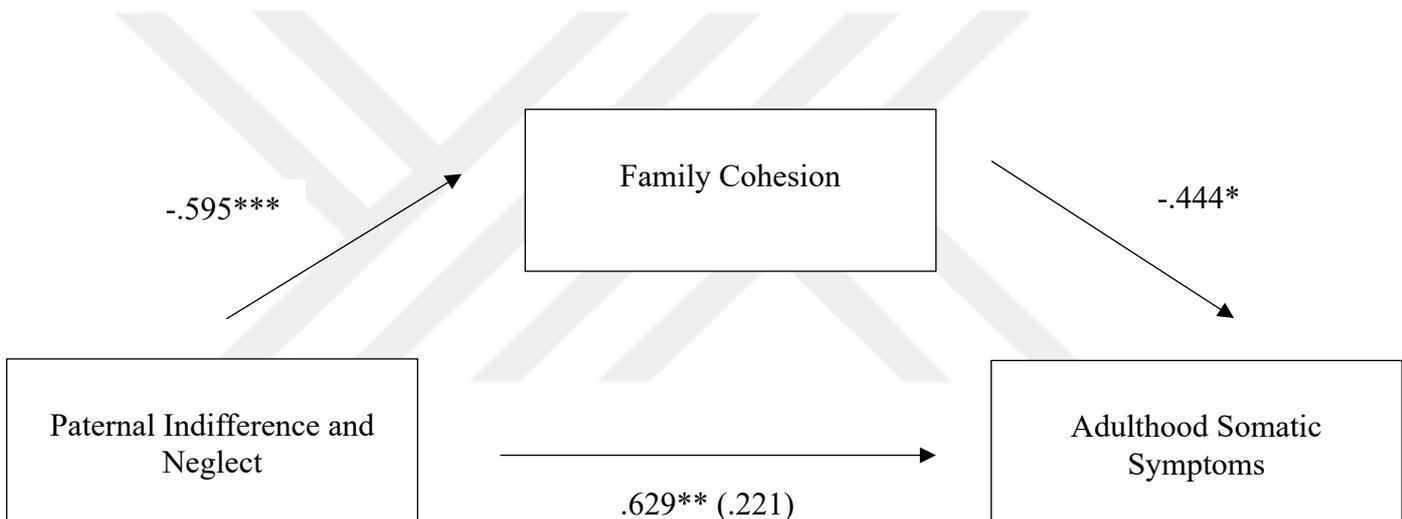
*The Mediator Role of Family Cohesion on the Relationship between Paternal Hostility and Aggression and Adulthood Somatic Symptoms*

Path	B	SE	95% CI		<i>t</i>	<i>p</i>
			L	U		
P. H. A. → Family C.	-.603	.059	-.719	-.487	-10.22	.00***
Family C. → BSI-44	-.577	.199	-.969	-.185	-2.894	.004**
Table 16 (cont.d)						
Total Effect						
(P. H. A. on BSI-44)	.845	.216	.420	.1.27	3.91	.00***
Direct Effect						
(P. H. A. on BSI-44)	.497	.245	.015	.979	2.027	.043*
Indirect Effect						
(P. H. A. on BSI-44						
via Family C.)	.348	.127	.109	.610		

*Note.* P. H. A. = Paternal Hostility and Aggression, Family C. = Family Cohesion, BSI-44 = Bradford Somatic Inventory-44, B = Beta coefficient, *SE* = Standard Error, CI = Confidence Interval, L = Lower, U = Upper, *t* = *t* statistic, \*\*\**p* < .001, \*\**p* < .01, \**p* < .05.

Mediation analysis was run to understand the mediator role of family cohesion in the relationship between paternal indifference and neglect and adulthood somatic symptoms. The effect of paternal indifference and neglect on family cohesion was negative and significant (Path *a*) B = -.595, SE = .049, 95% CI [-.690, -.499]. The effect of family cohesion on adulthood somatic symptoms was also negative and

significant (Path *b*)  $B = -.444$ ,  $SE = .208$ , 95% CI  $[-.853, -.034]$ . When the mediator variable, family cohesion, was ignored, paternal indifference and neglect was a significant direct predictor on adulthood somatic symptoms (Path *c'*)  $B = .629$ ,  $SE = .221$ , 95% CI  $[.194, 1.065]$ . In the presence of the mediator variable, the indirect effect of paternal indifference and neglect on adulthood somatic symptoms was significant  $B = .264$ ,  $SE = .135$ , 95% CI  $[.006, .541]$ . According to the findings, paternal indifference and neglect was a significant predictor directly and indirectly, and Path *c'* (.629) was closer to zero than Path *c* (.893). In this sense, family cohesion partially mediated the relationship between paternal indifference and neglect and adulthood somatic symptoms.



*Figure 6.* The mediator role of Family Cohesion on the relationship between Paternal Indifference and Neglect and Adulthood Somatic Symptoms.

*Note.* \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

Table 17

*The Mediator Role of Family Cohesion on the Relationship between Paternal Indifference and Neglect and Adulthood Somatic Symptoms*

Path	B	SE	95% CI		<i>t</i>	<i>p</i>
			L	U		
P. I. N.→Family C.	-.595	.049	-.69	-.499	-12.26	.00***

Table 17 (cont.d)

Family C. →BSI-44	-.444	.208	-.853	-.034	-2.13	.034*
Total Effect						
(P. I. N. on BSI-44)	.893	.184	.53	1.256	4.84	.00***
Direct Effect						
(P. I. N. on BSI-44)	.629	.221	.194	1.065	2.84	.005**
Indirect Effect						
(P. I. N. on BSI-44 via Family C.)	.264	.135	.006	.541		

*Note.* P. I. N. = Paternal Indifference and Neglect, Family C. = Family Cohesion, BSI-44 = Bradford Somatic Inventory-44, B = Beta coefficient, SE = Standard Error, CI = Confidence Interval, L = Lower, U = Upper,  $t = t$  statistic, \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

Mediation analysis was done to see the role of family cohesion in the relationship between maternal hostility and aggression and adulthood somatic symptoms. The effect of maternal hostility and aggression on family cohesion was negative and significant (Path *a*)  $B = -.637$ ,  $SE = .063$ , 95% CI  $[-.762, -.512]$ . The effect of family cohesion on adulthood somatic symptoms was negative and significant (Path *b*)  $B = -.461$ ,  $SE = .196$ , 95% CI  $[-.847, -.075]$ . Maternal hostility and aggression, ignoring the effect of family cohesion, was a significant direct predictor on adulthood somatic symptoms (Path *c'*)  $B = .854$ ,  $SE = .258$ , 95% CI  $[.345, 1.363]$ . In the presence of family cohesion, the indirect effect of maternal hostility and aggression on adulthood somatic symptoms was significant  $B = .294$ ,  $SE = .258$ , 95% CI  $[.033, .542]$ . In accordance with these findings, maternal hostility and aggression was a significant direct and indirect predictor, and Path *c'* (.854) was closer to zero than Path *c* (1.148). Therefore, family cohesion partially mediated the relationship between maternal hostility and aggression and adulthood somatic symptoms.

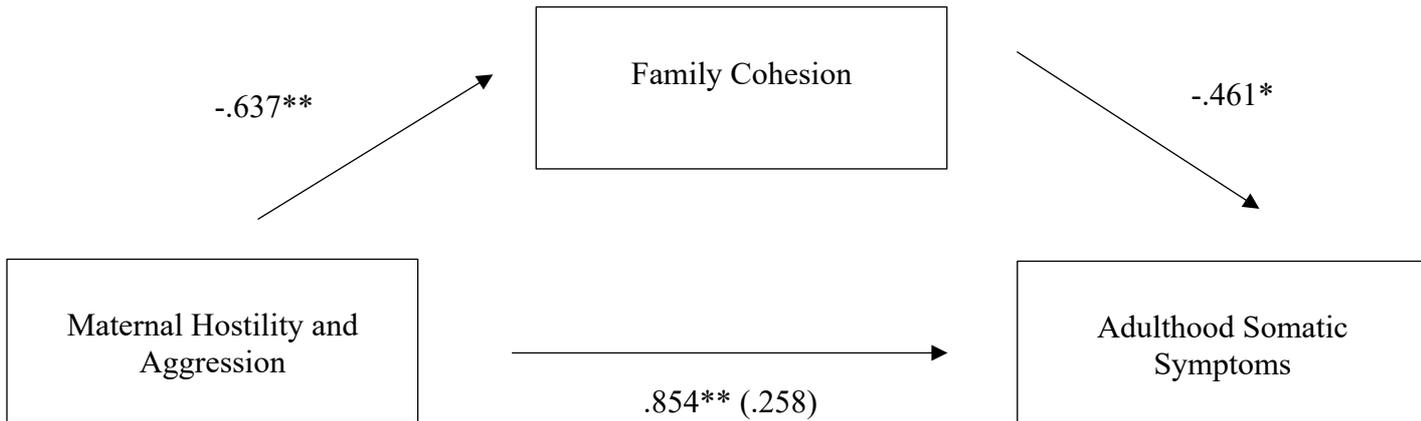


Figure 7. The mediator role of Family Cohesion on the relationship between Maternal Hostility and Aggression and Adulthood Somatic Symptoms.

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

Table 18

*The Mediator Role of Family Cohesion on the Relationship between Maternal Hostility and Aggression and Adulthood Somatic Symptoms*

Path	B	SE	95% CI		<i>t</i>	<i>p</i>
			L	U		
M. H. A. → Family C.	-.637	.063	-.762,	-.512	-10.02	.00***
Family C. → BSI-44	-.461	.196	-.847,	-.075	-2.35	.019*
Total Effect						
(M. H. A. on BSI-44)	1.14	.228	.699	1.597	5.03	.00***
Table 18 (cont.d)						
Direct Effect						
(M. H. A. on BSI-44)	.854	.258	.345	1.363	3.3	.001**

Table 18 (cont.d)

Indirect Effect

(M. H. A. on BSI-44

via Family C.)            .294    .127                    .033    .542

*Note.* M. H. A. = Maternal Hostility and Aggression, Family C. = Family Cohesion, BSI-44 = Bradford Somatic Inventory-44, B = Beta coefficient, SE = Standard Error, CI = Confidence Interval, L = Lower, U = Upper,  $t = t$  statistic, \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ .

In order to investigate the mediator role of perception of self on the relationship between paternal undifferentiated rejection and adulthood somatic symptoms, a mediation analysis was run. According to the results, the effect of paternal undifferentiated rejection on perception of self was negative and significant (Path *a*)  $B = -.233$ ,  $SE = .084$ , 95% CI  $[-.399, -.067]$ . Moreover, the effect of perception of self on adulthood somatic symptoms was negative and significant (Path *b*)  $B = -.533$ ,  $SE = .199$ , 95% CI  $[-.926, -.141]$ . Paternal undifferentiated rejection, ignoring the effect of perception of self, was a significant direct predictor on adulthood somatic symptoms (Path *c'*)  $B = .919$ ,  $SE = .309$ , 95% CI  $[.310, 1.527]$ . When perception of self was present, the indirect effect of the predictor variable on the criterion variable was significant  $B = .124$ ,  $SE = .071$ , 95% CI  $[.015, .288]$ . These findings indicated that the predictor variable had an effect on adulthood somatic symptoms directly and indirectly, and Path *c'* (.919) was closer to zero than Path *c* (1.043). Therefore, perception of self partially mediated the relationship between paternal undifferentiated rejection and adulthood somatic symptoms.

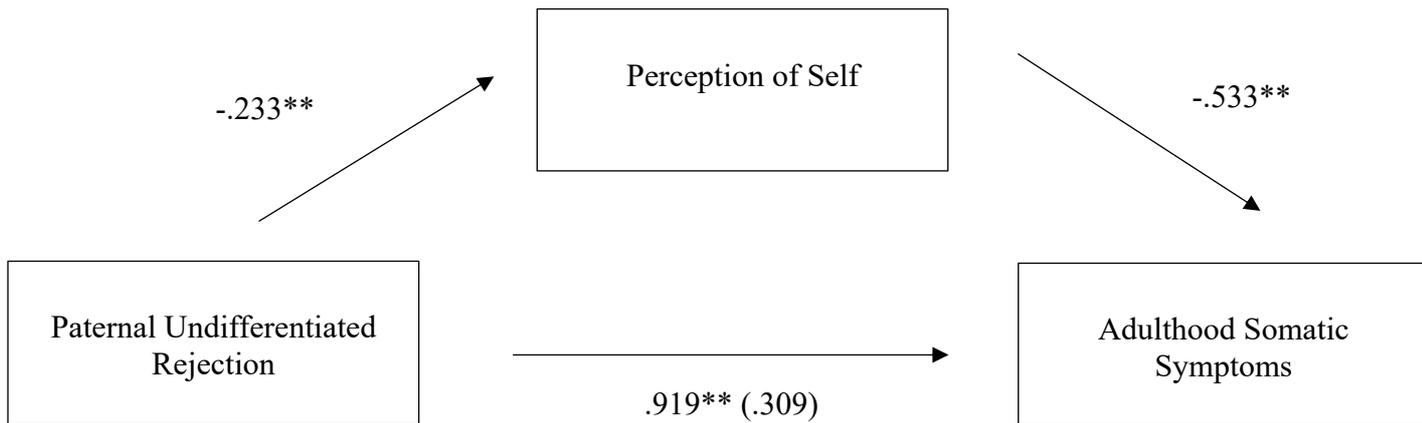


Figure 8. The mediator role of Perception of Self on the relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms.

Note. \*\* $p < .01$ .

Table 19

*The Mediator Role of Perception of Self on the Relationship between Paternal Undifferentiated Rejection and Adulthood Somatic Symptoms*

Path	B	SE	95% CI		<i>t</i>	<i>p</i>
			L	U		
P. U. R. → P. of Self	-.233	.084	-.399	-.067	-2.75	.006**
P. of Self → BSI-44	-.533	.199	-.926	-.141	-2.675	.008**
Total Effect						
(P. U. R. on BSI-44)	1.043	.308	.436	1.65	3.38	.001**
Direct Effect						
(P. U. R. on BSI-44)	.919	.309	.310	1.527	2.97	.003**

Table 19 (cont.d)

Indirect Effect

(P. U. R. on BSI-44

via P. of Self)            .124   .071            .015   .288

---

*Note.* P. U. R. = Paternal Undifferentiated Rejection, P. of Self = Perception of Self, BSI-44 = Bradford Somatic Inventory-44, B = Beta coefficient, *SE* = Standard Error, CI = Confidence Interval, L = Lower, U = Upper, *t* = t statistic, \*\**p* < .01.



## Chapter 5

### Discussion and Conclusion

In this chapter, discussion of the findings, conclusions, and recommendations were provided.

#### 5.1 Discussion of Findings of Research Questions

In the current study, it was hypothesized that parental psychological maltreatment would positively predict adulthood somatic symptoms. Then, it was expected that psychological resilience would negatively predict adulthood somatic symptoms. Subsequently, it was hypothesized that parental psychological maltreatment would negatively predict psychological resilience. Also, a meaningful relationship was expected between parental psychological maltreatment, adulthood somatic symptoms, and psychological resilience. In accordance with the results, these hypotheses were supported. On the other hand, the hypothesis that psychological resilience would mediate the relationship between parental psychological maltreatment and adulthood somatic symptoms could not be supported since psychological resilience lost its effect on adulthood somatic symptoms in the presence of maternal and paternal psychological maltreatment. On the contrary, another hypothesis expected that family cohesion would mediate the relationship between parental undifferentiated rejection and adulthood somatic symptoms and this hypothesis was supported. Additionally, it was found that family cohesion mediated the relationship between parental hostility and aggression and adulthood somatic symptoms, and also it mediated the relationship between paternal indifference and neglect and adulthood somatic symptoms. Moreover, perception of self mediated the relationship between paternal undifferentiated rejection and adulthood somatic symptoms. Besides these findings, demographic variables in relation to adulthood somatic symptoms were presented. All these findings were discussed below in detail.

**5.1.1 Discussion on main variables.** There was a significant relationship between parental psychological maltreatment, adulthood somatic symptoms, and psychological resilience. Specifically, maternal and paternal psychological maltreatment and adulthood somatic symptoms showed a positive and significant

relationship. It referred that as parental psychological maltreatment the participants were exposed to in their childhood increases, their somatic symptoms during adulthood increase. Furthermore, a negative and significant relationship was observed between parental psychological maltreatment and psychological resilience. In other words, as the participants' perceived psychological maltreatment by their parents increases, their level of psychological resilience decreases. Similarly, a negative, and significant relationship was found between psychological resilience and adulthood somatic symptoms. Namely, as the participants' level of resilience increases, their current bodily symptoms decrease. These relationships were in the same direction as what was expected, and Hypothesis 4 was supported.

In further analyses, Hypothesis 1 presented the lifelong influence of parents' approaches toward their children on the children's well-being by showing parental psychological maltreatment's positive predictor role on adulthood somatic symptoms. To be more specific, higher levels of maternal and paternal psychological maltreatment during childhood that the participants reported had an influence on a higher degree of their current somatic symptoms. In this study, parental psychological maltreatment was evaluated in terms of IPARTheory's dimensions of rejection; hostility and aggression, indifference and neglect, and undifferentiated rejection. As mentioned before, these parental attitudes are related to somatic symptoms (Rohner, 2021). This study presented consistent results with the theory; an increase in parents' perceived aggressive, neglectful, and/or undifferentiated rejective attitudes lead to an increase in somatic symptoms in individuals.

It was found that parental psychological maltreatment negatively predicted psychological resilience. To be more specific, it referred that the participants' higher levels of both maternal and paternal psychological maltreatment they perceived had a significant role on their lower levels of psychological resilience. In addition to the previous finding, this presented that parents' attitudes at early ages have an influence on individuals' protective factors in the future. In this sense, this finding may show the association between encountering risk factors during the early years of life and having problems in the future (Levine, 2003). As it was signified before, maternal and paternal acceptance and rejection have a huge impact on individuals, especially on their personality and psychological adaptation (Rohner, 2021). Moreover, studies from

different countries and cultures indicated that the attitudes of parents influence an individual's level of resilience (Biernacka et al., 2021; Özer, 2013; Petrowski et al., 2014; Zakeri et al., 2010). It may be said that the finding of this study was in line with the mentioned conclusions and Hypothesis 5 was supported.

Besides these conclusions, psychological resilience negatively predicted adulthood somatic symptoms and Hypothesis 2 was also supported. In other words, the participants' higher levels of resilience had a significant role in the lower level of their somatic symptoms. In the literature on psychological resilience, it was concluded that resilience has an adverse relationship with somatic well-being (Karampas et al., 2016; Parker et al., 2020). The finding of the current study supported the protective role of resilience on mental health (Konaszewski et al., 2021). Moreover, as was mentioned before (Tugade et al., 2004), it may be considered that since the mind and the body are not separate entities, the way of interpreting and dealing with challenging situations has a remarkable influence on mental, therefore, physical well-being.

In addition to the mentioned hypotheses, it was expected that psychological resilience would take a mediator role in the relationship between parental psychological maltreatment and adulthood somatic symptoms. However, this expectation could not be met since in the presence of parental psychological maltreatment, the effect of psychological resilience on adulthood somatic symptoms was nonsignificant. Therefore, psychological resilience could not mediate the relationship between parental psychological maltreatment and adulthood somatic symptoms. On the contrary, as was presented in the literature, traumatic experience during childhood is related to arousal of stress and decreased level of psychological resilience, and therefore the occurrence of FSS through continuous stress (Fischer et al., 2014). Furthermore, the results of another study signified that decreased level of resilience is associated with a serious degree of IBS signs while ACEs are related to a weakened ability to overcome in individuals with IBS (Parker et al., 2020). In this study, compatible findings with the literature could not be achieved and Hypothesis 3 was not supported.

In further analyses, it was observed that subdimensions of psychological resilience, perception of future, structured style, social competence, and social resources did not indicate mediator roles in different analyses with other

subdimensions of maternal and paternal psychological maltreatment, and somatic symptoms. In this sense, it may be understandable that in total, psychological resilience was not a mediator in this relationship. While interpreting these findings, it should be remembered that one item from structured style, one item from social resources, and one item from social competence were discarded to provide reliability. Even after this process, internal consistency values of structured style and social competence were acceptable but relatively low. This may affect these subdimensions, therefore, they could not show mediator effects. To understand the roles of structured style and social competence more accurately in this relationship, future studies are required.

Even though social resources had sufficient internal consistency, it did not have a mediator role. In contrast to the current finding, a study by Sperry and Widom (2013) presented that social support has a mediator role in the association between maltreatment at early ages and anxiety and depression. Furthermore, another study indicated that one's resource of social support mediates the relationship between child abuse and psychopathology (Su, Meng, Yang & D'Arcy, 2022). Even though social resources include friends and other relatives, it also includes parental support (Friborg et al., 2003; Nettles, Mucherah & Jones, 2000). The participants in this study were university students, and the mean age of the participants showed that many of the participants were relatively young. In this sense, it may be thought that their parents may still have a significant influence on their lives. Considering these results, it would be expected that parental psychological maltreatment leads to a decrease in social resources, therefore increase in adulthood somatic symptoms. However, this conclusion could not be achieved, and the finding was not compatible with previous studies.

As a subscale of psychological resilience, perception of future also did not show a mediator effect, and none of the items of it were discarded. As it was indicated before, hope is an important and protective factor in one's life (Roy, 2021) and Friborg and colleagues (2005) explained perception of future as individuals' beliefs about chances for achieving aims in the future. A study by Murberg (2012) presented that optimism may become a protective factor against adverse life events' influences on somatic symptoms in students. This study gives a frame, yet it is not sufficient to make

an inference for the current study's results. Since this study did not focus on the role of perception of future, the following studies are required to understand its effect on the relationship between parental psychological maltreatment and adulthood somatic symptoms more comprehensively.

In this study, the subdimensions of psychological resilience that showed mediator roles were meaningful; family cohesion and perception of self. According to the results, family cohesion mediated the relationship between parental undifferentiated rejection and adulthood somatic symptoms. It refers that the participants who report parental undifferentiated rejection are more likely to have less cohesive families, and then, have more somatic symptoms. The current study indicated that the participants believed that they were not loved or valued by their parents during their childhood, and these were related to their current somatic symptoms while family cohesion was negatively mediating the relationship. As it was mentioned before, a study showed that both mothers' and fathers' adverse attitudes toward their children, including undifferentiated rejection, were related to bodily complaints in the future (Naz & Kausar, 2012). Also, another study presented that both maternal and paternal warmth was related to individuals' high level of resilience while their rejective and punitive attitudes were related to low level of resilience (Petrowski et al., 2014). In addition, in this study, specifically family cohesion, as a protective factor in psychological resilience, mediated the relationship. It was indicated that the family may be one's protective factor (Haase, 2004; O'Doughert Wright & Masten, 2005). Moreover, Daniels and Bryan (2021) mentioned that family cohesion is associated with resilience in adulthood. A study by Liu, Liu, and Zhao (2017) presented that family cohesion was negatively related to somatic symptoms in university students. Another study indicated that youths who defined their family as less cohesive had more bodily symptoms (Terre & Ghiselli, 1997). This may be concluded that while the results of the current study were consistent with the literature, it was signified that parental attitudes have critical influences on families, therefore individuals.

According to the findings, there was a difference in the effect of family cohesion between maternal and paternal undifferentiated rejection; in maternal undifferentiated rejection, family cohesion partially mediated the relationship with adulthood somatic symptoms while in paternal undifferentiated rejection, family

cohesion completely mediated this relationship. According to Baron and Kenny (1986), in psychology, phenomena that are investigated have various causes. Therefore, expecting partial mediator effects compared to looking for complete mediation results may be more reasonable. Furthermore, it was signified that the finding of partial mediation refers that additional studies are required to research other mediators while the finding of complete mediation presents that there is no place for different variables to take the mediator role (Preacher & Kelley, 2011). The findings of the current study presented that family cohesion is not sufficient to fully explain the process by which the effect of maternal undifferentiated rejection on adulthood somatic symptoms. Further studies are required to investigate other variables which mediate the relationship between maternal undifferentiated rejection and adulthood somatic symptoms. On the other side, in the current study, family cohesion completely mediated the relationship between paternal undifferentiated rejection and adulthood somatic symptoms. This finding refers that no other variable is required to analyze as a mediator since when the mediator family cohesion is present, the significant effect of paternal undifferentiated rejection on adulthood somatic symptoms is removed. In light of these findings, Hypothesis 6 is partially supported.

In this study, besides mentioned hypotheses, it was found that family cohesion partially mediated the relationship between parental hostility and aggression and adulthood somatic symptoms. Specifically, it partially mediated the relationship between paternal hostility and aggression and adulthood somatic symptoms, and partially mediated the relationship between maternal hostility and aggression and adulthood somatic symptoms. These findings mean that the participants with a past of parental hostility and aggression are more likely to have a less cohesive family, and then experience more somatic symptoms in adulthood. A study by Allan, Kashani, and Reid (1996) showed that parents' hostile attitudes are related to issues in a family; it was suggested that presumably, the hostile caregiver is the one that leads the family which is not cohesive and not supportive. In the same study, hostile attitudes of parents are defined as covered family violence. A study by Polcari, Rabi, Bolger, and Teicher (2014) presented that both maternal and paternal verbal aggression is related to children's mental health issues in the future. Furthermore, in this study, it was found that family cohesion partially mediated the relationship between paternal indifference and neglect and adulthood somatic symptoms. In other words, the participants with a

history of paternal indifference and neglect are more likely to describe their family as less cohesive, and experience more somatic symptoms. In Turkey, it was presented that fathers' indifferent and neglectful, and hostile and aggressive attitudes predicted future bodily signs (Kulaksız & Erensoy, 2021). Moreover, another study that was done in Turkey indicated that by looking at familial functions (i.e., problem-solving, contacting, emotional responsiveness, and engagement), emotional neglect toward a child may be estimated. This association may be related to the fact that childhood psychological maltreatment is highly connected to familial relations (Kaya & Çeçen-Eroğul, 2013). The findings of the current study are congruent with previous results. Furthermore, it is notable that when family cohesion was present, neither parents' hostile and aggressive nor fathers' indifferent and neglectful attitudes completely lost their direct effects on current somatic symptoms. Therefore, future studies are necessary to research other variables which have mediator roles in these relationships.

This study also found that perception of self showed a partial mediator role in the relationship between paternal undifferentiated rejection and adulthood somatic symptoms. Friberg and colleagues (2005) indicated that perception of self includes one's perception of strengths and abilities of the self. It may be interpreted as the participants who report fathers' undifferentiated rejection are more likely to believe less their strengths and abilities, and then have more somatic symptoms. As was signified before, depending on the kind of perceived parental rejection, it may adversely influence one's self-esteem (Rohner, 2021). In Turkey, a study showed that fathers' perceived rejection and neglect are associated with individuals' hostility, negative self-perception, depression, anxiety, and somatization (Balamir, 2020). Moreover, another study presented that individual differences are influential on multiple bodily signs, in other words, it was indicated that individuals' self-criticism was related to the severity of high levels of bodily signs (Hyphantis, Goulia & Carvalho, 2013). In this sense, this finding of the study is congruent with both theoretical and empirical research. Yet, since perception of self partially mediated this relationship, this situation referred that there may other variables which mediate this relationship. Therefore, different studies are required to investigate mediator variables other than perception of self.

It should be signified that in maternal rejective attitudes, family cohesion mediated the relationship of adulthood somatic symptoms with maternal undifferentiated rejection and maternal hostility and aggression, while perception of self could not mediate any relationship between maternal rejective attitudes and somatic symptoms. In the presence of the variable family cohesion, maternal indifference and neglect pursued its effect on adulthood somatic symptoms without any decrease and it could not mediate the relationship. Moreover, this situation was also analyzed in the presence of the variable perception of self with all maternal rejective attitudes. As it was mentioned, family cohesion and perception of self showed a mediator effect in the presence of paternal rejective attitudes. These findings may draw attention to the factors that explain the relationship between parental rejective attitudes on adulthood somatic symptoms, and the differences between evaluations of maternal and paternal attitudes from the perspectives of children. In this sense, it is necessary to study aspects that explain the relationship between maternal psychological maltreatment and adulthood somatic symptoms.

**5.1.2 Discussion on demographic information.** In this study, most of the participants' severity of somatic symptoms was in the low range and followed by the middle and high ranges. In accordance with the findings, gender showed a significant difference in terms of experiencing somatic symptoms. Specifically, in this study, females reported higher scores on somatic symptoms than males. It was in line with previous national and international findings (American Psychiatric Association, 2022; Gerdan & Kurt, 2020; Loeb et al., 2018; Rezaki et al., 1995). Barsky, Peekna, and Borus' study (2001) that was done to understand the differences between women and men in terms of somatic symptoms mentioned the differences as mental disorders which are related to somatization are more common among women, women are exposed more to maltreatment and trauma, and these are related to looking for help and reporting bodily signs. Furthermore, it was signified that between genders, there is a different threshold for the characterization of sensations as bodily signs. From this perspective, differences between genders in terms of experiencing somatic symptoms may be understandable.

The ages of the participants did not create any significant difference in terms of experiencing somatic symptoms. This finding is different than the literature since it

was indicated that persistent bodily symptoms are found to be related to older ages (American Psychiatric Association, 2022). However, it should be noted that in this study, the age range was not comprehensive enough to evaluate age differences. Moreover, psychotherapy statuses as currently receiving, received in the past, or never received did not create meaningful differences in the participants' somatic symptoms. In studies, different psychotherapy techniques are found to be effective for different types of somatic disorders (Abbass, Kisely & Kroenke, 2009; Koelen et al., 2014; Kroenke, 2007). In this sense, it may be thought that the finding of this study is not compatible with the previous findings. In light of the literature, people often believe that the symptoms they are experiencing are related to medical conditions rather than psychological reasons (Lipowski, 1988). Thus, not looking at the bodily symptoms from the perspective that they might be sources of psychological distress may lead to indifference in psychotherapy status. In this sense, enhancement of awareness about emotions and integration of mind and body may create a difference in people's understanding of somatic symptoms. Furthermore, whether having someone to trust and get support from did not create any difference in terms of experiencing somatic symptoms. Contrarily, according to studies, perceived social support was related to fewer bodily signs (Das, Mandal, Nath & Mondal, 2020; Grigaityte & Söderberg, 2021). Similar to the previous result, perception toward somatic symptoms and the way of making sense of them may have an influence on not achieving group differences. In other words, it was previously signified that for some individuals with somatic symptoms, hearing that their symptoms may be related to their feelings may make them confused (Freedman & Sweet, 1954). In this sense, in terms of their somatic symptoms, individuals may feel that they are not understood by trusted ones, hence, having someone to trust and get support from may not create a difference in their bodily symptoms. Understanding the link between mind and body may change the understanding of social support in this issue.

It was found in this study that there was no difference in the place where the participants mostly lived and experience of somatic symptoms. A study that was done by the Ministry of Health in Turkey indicated that the prevalence of having mental disorders was 12% in urban areas, and 11% in rural areas, and somatization disorder was the second most common mental disorder with 5% (Ünal et al., 2013). The current study did not measure a disorder, instead, symptoms were rated by the participants,

also, in this study, it was focused only on somatic symptoms. Therefore, this type of conclusion could not be achieved. Moreover, in this study, the level of income of the participants did not differ in the level of somatic symptoms. It may be thought that it was not congruent with the literature since persistent bodily signs are related to low levels of socioeconomic status and being unemployed was indicated (American Psychiatric Association, 2022). The difference between the findings may be related to that merely the level of income may not be sufficient to provide a conclusion.

In the current study, there was a significant difference between the participants who were smoking and who were not. Accordingly, smoking people reported higher scores on somatic symptoms. This may be related to the fact that the symptoms that are listed may be related to the smoking's harmful effects such as respiratory or heart problems. However, further investigations may be required to understand this relationship. Also, the usage of psychiatric medication did not differ in the level of somatic symptoms. Considering the side effects of medications, it would have been expected that somatic symptoms may be more common in the group with psychiatric medication use since somatic disorder and side effects may be hard to differentiate (Kozumplik, Uzun & Jakovljevic, 2009). Nevertheless, for more comprehensive findings, future studies are needed.

Last but not least, having chronic illness and mental disorder diagnosis were related to higher levels of somatic symptoms. It was presented that the condition of general medical illness is related to the severity of bodily signs (American Psychiatric Association, 2022) also, as was mentioned before, somatization is related to other disorders such as depression and anxiety (Lipowski, 1988), and somatic symptom disorder is notably comorbid with different psychological disorders (American Psychiatric Association, 2022). In the current study, some of the participants reported various mental health diagnoses including anxiety and depressive disorders. Therefore, the results of the current study were compatible with previous findings. All in all, it should be noted that for the relationship between demographic variables and adulthood somatic symptoms, the groups were not equally distributed, and this may affect the findings. In this sense, to achieve more accurate and conclusive findings, groups with an equal number of participants are required in further studies.

## 5.2 Conclusions

In conclusion, this study focused on the mediator role of psychological resilience with its subdimensions, on the relationship between parental psychological maltreatment with its subdimensions, and adulthood somatic symptoms. Besides IPARTheory, hypotheses were also developed in accordance with the previous findings. On one hand, as aforementioned, parental psychological maltreatment is a critical aspect since it is transmitted from generation to generation, and has various adverse impacts on individuals, such as somatic symptoms. On the other hand, studies presented that somatization is frequently observed from a symptom to a disorder, and psychological sources of the somatization may not be the focal point for patients. In this sense, studying somatic symptoms in a non-clinical sample is important to support their prevalence and understand their association with other aspects. In addition, as was indicated earlier, in Turkey, resilience has gained attention, especially in recent years. In this manner, studying psychological resilience in relation to different factors is meaningful to understand its aspects and therefore, focus on the enhancement of psychological resilience in society. This study contributed to the literature through investigating the relationship between parental psychological maltreatment and adulthood somatic symptoms by the mediator role of psychological resilience.

Even though the results do not indicate causality, the findings shed light on parental psychological maltreatment while investigating somatic symptoms in university students. The current study supports the cruciality that the way of parents' attitudes has a remarkable influence on their children in the long run. Since the study investigated current somatic symptoms' associations with parental attitudes in the past, the results signified that the effects of parental attitudes continue from childhood to adulthood. Also, it is presented that focusing on the parents' attitudes while rearing a child may help children gain psychological resilience progressively. Moreover, another conclusion shows it is crucial to enhance psychological resilience to avoid possible mental and bodily issues.

This research indicated the importance of family cohesion in the presence of parental psychological maltreatment and somatic symptoms. This finding provides to fill a gap in the literature, and it shows that besides constructive parental attitudes, as a protective factor, a cohesive family is an influential component of one's well-being.

Moreover, the role of perception of self in the presence of paternal psychological maltreatment and somatic symptoms is signified in this study. It presents that as an individual protective factor, perception of self has an effect on an individual's mental and physical health. These results contributed to the national literature through their novelty, and they may promote new perspectives in terms of the relations between parental attitudes, family structure, individuals' understanding of themselves, and their well-being.

It is notable to conclude that parents, hence families, have a critical place in children's lives. Their attitudes may leave a scar on children even after growing up. Also, despite the challenges, especially the ones that come from parents, it is crucial to have psychological resilience in terms of protecting mental and physical health. Therefore, all these conclusions may shed light on the possible preventive and protective aspects of psychological and physical issues. In this sense, focusing on constructive parental attitudes toward children may take a part as a preventive, while the acquisition of psychological resilience may take a part as a protective role in one's well-being.

### **5.3 Recommendations**

This study brought new questions to work on further studies. Initially, this cross-sectional study examined parental psychological maltreatment retrospectively, to achieve more accurate and comprehensive results, this study may be carried out as a longitudinal study. Also, including mothers and fathers in the study would be beneficial to see the perspectives of parents and children. This may help understand generational differences between parents' and children's perspectives while caring a child. In addition, to understand familial relationships more comprehensively, this study may be carried out with siblings. Hence, this may provide a different perspective through similarities and differences between parental attitudes toward siblings. Moreover, in the current study, the participants with single parents were not included. In further studies, it is recommended to add these participants to the study to see whether there are differences between their level of exposing psychological maltreatment, somatic symptoms, and psychological resilience. Also, since somatic symptoms and disorders may co-occur with different disorders such as anxiety and depression, in future research, evaluating somatic symptoms in relation to other

symptoms may provide more comprehensive results for the relationship with parental psychological maltreatment and psychological resilience.

This study focused on psychological resilience with protective factors, and the findings presented that the majority of the mediation analyses indicated a partial mediator role of family cohesion and perception of self. In this sense, it is necessary to investigate other variables that may have a mediator role in the relationship of maternal undifferentiated rejection, maternal hostility and aggression, paternal indifference and neglect, paternal hostility and aggression, and paternal undifferentiated rejection with adulthood somatic symptoms. In future studies, other vulnerability factors that may possibly explain the relationship between these variables may be investigated since they may influence the attitude of parents toward their child (Baldwin et al., 1990) and they may make individuals susceptible to health problems (Mrazek & Haggerty, 1994). In addition, specifically, the mediator role of coping techniques is recommended to investigate in these relationships since successful coping techniques may gain through encountering adversities at early ages (Graber et al., 2015), and the type of coping techniques has an impact on mental health and somatic signs (Mark & Smith, 2018).

In this study, psychological resilience's protective factors could not mediate the relationship of maternal indifference and neglect with adulthood somatic symptoms. Different variables that are protective factors for individuals may be investigated to understand mediators in this relationship. In addition, according to the findings, variables that explain the relationship between parental psychological maltreatment and adulthood somatic symptoms may be different for maternal and paternal rejective attitudes. In this sense, examining these variables may enlighten the perspectives on maternity and paternity. In accordance with the future findings, new questions may arise for this issue.

In the current study, the sample was restricted to university students. To see the impacts of the differences in the aspects such as age, perception, and lifestyle on the investigated relationship, this study may be done with participants from high school and the working class. In this way, diversity may be provided in the results. Furthermore, in the current study, somatic symptoms within the last month were evaluated by the participants, in the future, evaluating these symptoms at regular

intervals by healthcare professionals may provide more accurate results in terms of the general somatic symptoms of participants.

This study examined the relationship between demographic variables and somatic symptoms. In the future, understanding demographic variables' relationship with parental psychological maltreatment and psychological resilience may bring a broader perspective. Moreover, if this study will be done with university students again, adding education level and major to the demographic questions would help bring ideas, especially for the relationship between one's education and level of resilience. Also, to compare the impacts of places such as city, town, or village on mental disorders, their impacts may be looked at for somatic symptoms, anxiety, and depression.

As was mentioned in the discussion section, the groups in demographic variables did not show balanced distribution, this issue may have an adverse influence in terms of achieving accurate results. In the following studies, with university students in Turkey, diverse groups with an even number of participants may be achieved to investigate these variables' actual impacts on somatic symptoms. Moreover, this study could not obtain accurate information about the participants' duration of receiving psychotherapy. In further examinations, it would be beneficial to investigate the relationship between psychotherapy duration, psychological resilience, and somatic symptoms.

The current study was shared with the participants approximately one and a half months after the February 6 earthquake in Turkey and Syria, which has created devastating effects all over Turkey. It may be thought that during this period, individuals' perceptions and symptoms may be influenced as consequences of losing their beloved ones, homes, and belongings, or witnessing someone who has experienced these. In this sense, this study may be done at a different time when hopefully the effects of this collective trauma lessen a little.

## REFERENCES

- Abbass, A., Kisely, S., & Kroenke, K. (2009). Short-term psychodynamic psychotherapy for somatic disorders. *Psychotherapy and Psychosomatics*, 78, 265-274. doi: 10.1159/000228247
- Ainsworth, M. D. (1989). Attachments beyond infancy. *American Psychologist*, 44(4), 709-716. doi: <https://doi.org/10.1037//0003-066x.44.4.709>
- Akfırat, O. N., & Özsoy, M. (2021). Türkiye'deki psikolojik sağlık ile ilgili yapılan lisansüstü tezlerin incelenmesi. *Kocaeli Üniversitesi Eğitim Dergisi*, 4(1), 26-42. <http://doi.org/10.33400/kuje.893290>
- Allan, W. D., Kashani, J. W., & Reid, J. C. (1996). Parental hostility: Impact on the family. *Child Psychiatry and Human Development*, 28(3), 169-178. doi: <https://doi.org/10.1023/a:1022833810248>
- Alschuler, K. N., Kratz, A. L., & Ehde, D. M. (2016). Resilience and vulnerability in individuals with chronic pain and physical disability. *Rehabilitation Psychology*, 61(1), 7-18. doi: 10.1037/rep0000055
- American Professional Society on the Abuse of Children (APSAC). (1995). *Psychosocial evaluation of suspected psychological maltreatment in children and adolescents*. Retrieved December 13, 2022, from [https://pubhtml5.com/hday/tslz/Psychosocial\\_Evaluation\\_of\\_Suspected\\_Psychological\\_Maltreatment\\_in\\_Children\\_and\\_Adolescents/](https://pubhtml5.com/hday/tslz/Psychosocial_Evaluation_of_Suspected_Psychological_Maltreatment_in_Children_and_Adolescents/)
- American Psychiatric Association. (2013). *Somatic symptom disorder*. Retrieved from [https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA\\_DSM-5-Somatic-Symptom-Disorder.pdf](https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA_DSM-5-Somatic-Symptom-Disorder.pdf)
- American Psychiatric Association (2022). *Diagnostic and statistical manual of mental disorders fifth edition text revision*. Washington, DC: American Psychiatric Association Publishing.

- American Psychiatric Association Division of Research. (2013). Highlights of changes from dsm-IV to dsm-5: Somatic symptom and related disorders. *Psychosomatic Medicine and Integrated Care*, 11(4), 525-527. doi: <https://doi.org/10.1176/appi.focus.11.4.525>
- Arnow, B. A. (2004). Relationships between childhood maltreatment, adult health and psychiatric outcomes, and medical utilization. *Journal of Clinical Psychiatry*, 65(12), 10-15.
- Arruda, M. A., Arruda, R., Landeira-Fernandez, J., Anunciaçao, L., & Bigal. (2020). Resilience and vulnerability in adolescents with primary headaches: A cross-sectional population-based study. *The Journal of Head and Face Pain*, 61(3), 1-12. doi: <http://dx.doi.org/10.1111/head.14078>
- Balamir, F. (2020). *Farklı fakülte öğrencilerinde algılanan ebeveyn kabul-reddi ve psikolojik belirtiler arasındaki ilişkide öz yeterliğin aracı rolünün incelenmesi* (Master's thesis). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=55nQlZ8LBW80fYhuwYJk3A&no=dFZ6I4qM8a6q9e25X-Y5LA>
- Baldwin, A. L., Baldwin, C., & Cole, R. E. (1990). Stress-resistant families and stress-resistant children. In E. Rolf, A. S. Masten, D. Cicchetti, K. H. Nüchterlein, & S. Weintraub (Eds.). *Risk and protective factors in the development of psychopathology* (pp. 257-280). Cambridge University Press.
- Bandura, A., & Cervone, D. (1983). Self-evaluative and self-efficacy mechanisms governing the motivational effects of goal systems. *Journal of Personality and Social Psychology*, 45(5), 1017-1028. doi: <https://doi.org/10.1037/0022-3514.45.5.1017>
- Barsky, A. J., & Borus, J. F. (1999). Functional somatic syndromes. *Annals of Internal Medicine*, 130(11), 910-921. doi: <https://doi.org/10.7326/0003-4819-130-11-199906010-00016>

- Barsky, A. J., Peekna, H. M., & Borus, J. F. (2001). Somatic symptom reporting in women and men. *JGIM, 16*(4), 266-275. doi: <https://doi.org/10.1046/j.1525-1497.2001.00229.x>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182. doi: <https://doi.org/10.1037//0022-3514.51.6.1173>
- Barton, B., & Peat, J. (2014). *Medical statistics: A guide to spss, data analysis, and critical appraisal*. John Wiley & Sons Ltd.
- Basım, H. N., & Çetin, F. (2011). Yetişkinler için psikolojik dayanıklılık ölçeği. *Türk Psikiyatri Dergisi, 22*(2), 104-114.
- Beal, S. J., Kashikar-Zuck, S., King, C., Black, W., Barnes, J., & Noll, J. G. (2020). Heightened risk for pain in young adult women with a history of childhood maltreatment: A prospective longitudinal study. *Pain, 161*(1), 156-165. doi: [10.1097/j.pain.0000000000001706](https://doi.org/10.1097/j.pain.0000000000001706)
- Benard, B. (1991, August). *Fostering resiliency in kids: Protective factors in the family, school, and community*. Retrieved March 23, 2023, from <https://eric.ed.gov/?id=ED335781>
- Beutel, M. E., Tibubos, A. N., Klein, E. M., Schmutzer, G., Reiner, I., Kocalevent, R. D., & Brahler, E. (2017) Childhood adversities and distress - the role of resilience in a representative sample. *PLoS ONE 12*(3), 1-14. doi: <https://doi.org/10.1371/journal.pone.0173826>
- Biernacka, M., Jakubowska-Winecka, A., & Kalicinski, P. (2021). Influence of parental attitudes on formation of psychological resilience and adherence to medical regime in adolescents after liver or renal transplantation. *Children, 8*(8). doi: [10.3390/children8080619](https://doi.org/10.3390/children8080619).
- Bohn, D., Bernardy, K., Wolfe, F., & Hauser, W. (2013). The association among childhood maltreatment, somatic symptom intensity, depression, and

somatoform dissociative symptoms in patients with fibromyalgia syndrome: A single-center cohort study. *Journal of Trauma Association*, 14(3), 342-358. doi: <https://doi.org/10.1080/15299732.2012.736930>

Bonanno, G. A. (2004). Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59(1), 20-28. doi: 10.1037/0003-066X.59.1.20

Bonanno, G. A., Kennedy, P., Galatzer-Levy, I. R., Lude, P., Elfström, M. L. (2012). Trajectories of resilience, depression, and anxiety following spinal cord injury. *Rehabilitation Psychology*, 57(3), 236-47. doi: <https://doi.org/10.1037/a0029256>

Boullier, M., Blair, M. (2018). Adverse childhood experiences. *Pediatrics and Child Health*, 28(3). 132-137. doi: <https://doi.org/10.1016/j.paed.2017.12.008>

Bradley, B., Davis, T. A., Wingo, A. P., Mercer, K. B., & Ressler, K. J. (2013). Family environment and adult resilience: Contributions of positive parenting and the oxytocin receptor gene. *European Journal of Psychotraumatology*, 4, 1-9. doi: <http://dx.doi.org/10.3402/ejpt.v4i0.21659>

Briere, J., & Runtz, M. (1988). Multivariate correlates of childhood psychological and physical maltreatment among university women. *Child Abuse & Neglect*, 12(3), 331-341. doi: [https://doi.org/10.1016/0145-2134\(88\)90046-4](https://doi.org/10.1016/0145-2134(88)90046-4)

Brown, R. J., Schrag, A., & Trimble, M. R. (2005). Dissociation, childhood interpersonal trauma, and family functioning in patients with somatization disorder. *American Journal of Psychiatry*, 162(5), 899-905. doi: <https://doi.org/10.1176/appi.ajp.162.5.899>

Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21, 230-258. doi: 10.1177/0049124192021002005

- Cangur, S., & Ercan, I. (2015). "Comparison of model fit indices used in structural equation modeling under multivariate normality". *Journal of Modern Applied Statistical Methods*, 14(1), 152-167. doi: 10.22237/jmasm/1430453580
- Claussen, A. H., & Crittenden, P. M. (1991). Physical and psychological maltreatment: Relations among types of maltreatment. *Child Abuse & Neglect*, 15(1-2), 5-18. doi: [https://doi.org/10.1016/0145-2134\(91\)90085-R](https://doi.org/10.1016/0145-2134(91)90085-R)
- Collishaw, S., Pickles, A., Messer, J., Rutter, M., Shearer, C., & Maughan, B. (2007). Resilience to adult psychopathology following childhood maltreatment: Evidence from a community sample. *Child Abuse & Neglect*, 31(3), 211-229. doi: <https://doi.org/10.1016/j.chiabu.2007.02.004>
- Craig, T. K. J., Boardman, A. P., Mills, K., Daly-Jones, O., & Drake, H. (1993). The south london somatization study I: Longitudinal course and the influence of early life experiences. *British Journal of Psychiatry*, 163, 579-588. doi: <https://doi.org/10.1192/bjp.163.5.579>
- Creed, F. H., Tomenson, B., Chew-Graham, C., Macfarlane, G. J., Davies, I., Jackson, J., ... McBeth, J. (2013). Multiple somatic symptoms predict impaired health status in functional somatic syndromes. *International Journal of Behavioral Medicine*, 20(2), 194-205. doi: <https://doi.org/10.1007/s12529-012-9257-y>
- Çetin, F., Yeloğlu, H. O., & Basım, H. N. (2015). Psikolojik dayanıklılığın açıklanmasında beş faktör kişilik özelliklerinin rolü: Bir kanonik ilişki analizi. *Türk Psikoloji Dergisi*, 30(75), 81-92.
- Dancey, C. P., & Reidy, J. (2007). *Statistics without maths for psychology*. England: Pearson Education Limited.
- Daniels, A. D., & Bryan, J. (2021). Resilience despite complex trauma: Family environment and family cohesion as protective factors. *The Family Journal: Counseling and Therapy for Couples and Families*, 29(487), 1-10. doi: <http://dx.doi.org/10.1177/10664807211000719>

- Das, S., Mandal, U. S., Nath, S., & Mondal, A. (2020). Relationship between perceived social support and severity of symptoms in persons with somatoform disorder. *Journal of Evolution of Medical and Dental Sciences*, 9(6), 320-323. doi: 10.14260/jemds/2020/73
- Daud, K. A. M., Khidzir, N. Z., Ismail, A. R., & Abdullah, F. A. (2018). Validity and reliability of instrument to measure social media skills among small and medium entrepreneurs at pengkalan datu river. *International Journal of Development and Sustainability*, 7(3), 1026-1037.
- Davis, D. A., Luecken, L. J., & Zautra, A. J. (2005). Are reports of childhood abuse related to the experience of chronic pain in adulthood? A meta-analytic review of the literature. *The Clinical Journal of Pain*, 21(5), 398-405. doi: 10.1097/01.ajp.0000149795.08746.31
- Deater-Deckard, K., Ivy, L., & Smith, J. (2005). Resilience in gene-environment transactions. In S. Goldstein, & R. B. Brooks (Eds.). *Handbook of resilience in children* (pp. 49-63). New York, USA: Springer Science + Business Media.
- Dedeler, M., Akün, E., & Durak Batıgün. (2017). Yetişkin ebeveyn kabul-red ölçeği – kısa form'un uyarılama çalışması. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences*, 30, 181-193. doi: 10.5350/DAJPN2017300302
- Dinleyici, M., & Şahin Dağlı, F. (2016). Duygusal ihmal, istismar ve çocuk hekiminin rolü. *Osmangazi Journal of Medicine*, 38(2), 18-27. doi: <http://dx.doi.org/10.20515/otd.20235>
- Dube, S. R., Anda, R. F., Felitti, V. J., Chapman, D. P., Williamson, D. F., & Giles, W. H. (2001). Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span findings from the adverse childhood experiences study. *JAMA*, 286(4), 2089-2096. doi: <https://doi.org/10.1001/jama.286.24.3089>
- Egeland, B., Sroufe, A., & Erickson, M. (1983). The developmental consequences of

different patterns of maltreatment. *Child Abuse & Neglect*, 7(4), 459-469.  
doi: [https://doi.org/10.1016/0145-2134\(83\)90053-4](https://doi.org/10.1016/0145-2134(83)90053-4)

Epli, H., Vural Batık, M., Doğru Çabuker, N., & Balcı Çelik, S. (2021). Relationship between psychological resilience and parental acceptance-rejection: The mediating role of self-compassion. *Current Psychology*, 42, 2167-2175. doi: <https://doi.org/10.1007/s12144-021-01822-4>

Felitti, J. V., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults the adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14(4), 245-258. doi: [https://doi.org/10.1016/s0749-3797\(98\)00017-8](https://doi.org/10.1016/s0749-3797(98)00017-8)

Field, A. (2013). *Discovering statistics using spss*. SAGE Publications Ltd.

Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: a comprehensive, national survey. *Child Maltreatment*, 10(1), 5-25. doi: 10.1177/1077559504271287

Fischer, S., Lemmer, G., Gollwitzer, M., & Nater, U. M. (2014). Stress and resilience in functional somatic syndromes - a structural equation modeling approach. *PLoS ONE* 9(11). doi:10.1371/journal.pone.0111214

Flatt, C., & Jacobs, R. L. (2019). Principle assumptions of regression analysis: Testing, techniques, and statistical reporting of imperfect data sets. *Advances in Developing Human Resources*, 21(4), 484-502. doi: 10.1177/1523422319869915

Fletcher, D., & Sarkar, M. (2013). Psychological resilience: A review and critique of definitions, concepts, and theory. *European Psychologist*, 18(1), 12-23. doi: <https://psycnet.apa.org/doi/10.1027/1016-9040/a000124>

Freedman, M. B., & Sweet, B. S. (1954). Some specific features of group psychotherapy and their implications for selection of patients. *International*

*Journal of Group Psychotherapy*, 4(4), 355-368. doi:  
10.1080/00207284.1954.11508548

Freud, S. (1894). The neuro-psychoses of defence. *Standard Edition*, 3, 45-61.

Friborg, O., Barlaug, D., Martinussen, M., Rosenvinge, J. H., & Hjemdal, O. (2005). Resilience in relation to personality and intelligence. *International Journal of Methods in Psychiatric Research*, 14(1), 29-42. doi:  
<https://doi.org/10.1002/mpr.15>

Friborg, O., Hjemdal, O., Rosenvinge, J. H., & Martinussen, M. (2003). A new rating scale for adult resilience: What are the central protective resources behind healthy adjustment? *International Journal of Methods in Psychiatric Research*, 12(2), 65-76. doi: <https://doi.org/10.1002/mpr.143>

Fuentes-Chacón, R., Simón-Saiz, J., Díaz-Valentín, J., Rodríguez-Sánchez, J., Martínez-García, R., & Garrido-Abejar, M. (2022). Psychosomatic symptoms: Resilience as a protective factor in adolescents. Observational, descriptive, cross-sectional, and multicenter study. *Research Square*. doi:  
<https://doi.org/10.21203/rs.3.rs-1434643/v1>

Garnezy, N. (1991). Resiliency and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioral Scientist*, 34(4), 416-430. doi: <https://doi.org/10.1177/0002764291034004003>

Garnefski, N., van Rood, Y., de Roos, C., & Kraaij, V. (2017). Relationships between traumatic life events, cognitive emotion regulation strategies, and somatic complaints. *Journal of Clinical Psychology in Medical Settings*, 24, 144-151. doi: 10.1007/s10880-017-9494-y

Gerdan, G., & Kurt, M. (2020). Üniversite öğrencilerinde somatik belirtiler, bağlanma stilleri ve suçluluk utanç duyguları arasındaki ilişkinin incelenmesi. *Journal of Social Sciences of Mus Alparslan University*, 8(2), 383-393. doi:  
<https://doi.org/10.18506/anemon.623369>

- Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *Child Maltreatment, 373*(9657), 68-81. doi: 10.1016/S0140-6736(08)61706-7
- Glaser, D. (2002). Emotional abuse and neglect (psychological maltreatment): A conceptual framework. *Child Abuse & Neglect, 26*(6-7), 697-714. doi: [https://doi.org/10.1016/s0145-2134\(02\)00342-3](https://doi.org/10.1016/s0145-2134(02)00342-3)
- Gomez, R., & Rohner, R. P. (2011). Tests of factor structure and measurement invariance in the united states and australia using the adult version of the parental acceptance-rejection questionnaire. *Cross-Cultural Research, 45*(3), 267–285. doi: 10.1177/1069397111403111
- Graber, R., Pichon, F., & Carabine, E. (2015, October 5). *Psychological resilience state of knowledge and future research agendas*. Retrived March 8, 2023, from <https://odi.org/en/publications/psychological-resilience-state-of-knowledge-and-future-research-agendas/>
- Haase, J. E. (2004). The adolescent resilience model as a guide to interventions. *Journal of Pediatric Oncology Nursing, 21*(5), 289-299. doi: 10.1177/1043454204267922
- Haddadi, P., & Besharat, M. A. (2010). Resilience, vulnerability and mental health. *Procedia Social and Behavioral Sciences, 5*, 639-642. doi: <https://doi.org/10.1016/j.sbspro.2010.07.157>
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: a regression based approach*. New York, NY: The Guilford Press.
- Henningsen, P., Zipfel, S., Sattel, H., & Creed, F. (2018). Management of functional somatic syndromes and bodily distress. *Psychotherapy and Psychosomatics, 87*(1), 12-31. doi: <https://doi.org/10.1159/000484413>

- Hooper, D., Coughan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal on Business Research Methods*, 6(1), 53-60.
- Höjer, I., & Johansson, H. (2013). School as an opportunity and resilience factor for young people placed in care. *European Journal of Social Work*, 16(1), 22-36, doi: 10.1080/13691457.2012.722984
- Hu, L., & Bentler, P. M. (1999) Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural equation modeling. *A Multidisciplinary Journal*, 6(1), 1-55. doi: <http://dx.doi.org/10.1080/10705519909540118>
- Hyphantis, T., Goulia, P., & Carvalho, A. F. (2013). Personality traits, defense mechanisms and hostility features associated with somatic symptom severity in both health and disease. *Journal of Psychosomatic Research*, 75(4), 362-369. doi: <https://doi.org/10.1016/j.jpsychores.2013.08.014>
- IBM Corp. Released 2023. IBM SPSS Statistics for Macintosh, Version 29.0.1. Armonk, NY: IBM Corp.
- JAMOVI [Computer Software]. (2023). Retrieved from <https://www.jamovi.org>
- Kalapurakkel, S., Carpino, E. A., Lebel, A., & Simons, L. E. (2014). “Pain can’t stop me”: Examining pain self-efficacy and acceptance as resilience processes among youth with chronic headache. *Journal of Pediatric Psychology*, 40(9), 926-933. doi: 10.1093/jpepsy/jsu091
- Karampas, K., Michael, G., & Stalikas, A. (2016). Positive emotions, resilience and psychosomatic health: Focus on hellenic army nco cadets. *Psychology*, 7,1727-1740. doi: 10.4236/psych.2016.713162
- Karairmak, Ö., & Siviş-Çetinkaya, R. (2011). Benlik saygısının ve denetim odağının psikolojik sağlamlık üzerine etkisi: Duyguların aracı rolü. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 4(35), 30-43.

- Katon, W., Kleinman, A., & Rosen, G. (1982). Depression and somatization: a review part 1. *The American Journal of Medicine*, 72(1), 127-135. doi: [https://doi.org/10.1016/0002-9343\(82\)90599-x](https://doi.org/10.1016/0002-9343(82)90599-x)
- Kaya, İ., & Çeçen-Eroğul, A. R. (2013). Ergenlerde çocukluk dönemi istismar yaşantılarının yordayıcısı olarak aile işlevlerinin rolü. *Eğitim ve Bilim*, 38(168), 386-397.
- Kazarian, S. S., Moghnie, L., & Martin, R. A. (2010). Perceived parental warmth and rejection in childhood as predictors of humor styles and subjective happiness. *Europe's Journal of Psychology*, 6(3), 71-93. doi: <https://doi.org/10.5964/ejop.v6i3.209>
- Kealy, D., Rice, S. M., Ogrodniczuk, J. S., & Spidel, A. (2018). Childhood trauma and somatic symptoms among psychiatric outpatients: Investigating the role of shame and guilt. *Psychiatry Research*, 286, 169-174. doi: <https://doi.org/10.1016/j.psychres.2018.06.072>
- Kellner, R. (1990). Somatization theories and research. *The Journal of Nervous and Mental Disease*, 178(3), 150-160.
- Kellner, R. (1994). Psychosomatic syndromes, somatization and somatoform disorders. *Psychotherapy Psychosomatics*, 61(1-2), 4-24. doi: [10.1159/000288868](https://doi.org/10.1159/000288868)
- Kendell, R. E. (2001). The distinction between mental and physical illness. *British Journal of Psychiatry*, 178(6), 490-493. doi: <https://doi.org/10.1192/bjp.178.6.490>
- Keskin, A., Ünlüoğlu, İ., Bilge, U., & Yenilmez, Ç. (2012). Ruhsal bozuklukların yaygınlığı, cinsiyetlere göre dağılımı ve psikiyatrik destek alma ile ilişkisi. *Nöropsikiyatri Arşivi*, 50(4), 344-351. doi: <http://dx.doi.org/10.4274/Npa.y6522>
- Khaleque, A., & Rohner, R. P. (2002). Reliability of measures assessing the pancultural association between perceived parental acceptance-rejection and

psychological adjustment: A meta-analysis of cross-cultural and intracultural studies. *Journal of Cross Cultural Psychology*, 33(1), 87-99. doi: <https://doi.org/10.1177/0022022102033001006>

Khan, A. A., Khan, A., Harezlak, J., Tu, W., Kroenke, K. (2003). Somatic symptoms in primary care: Etiology and outcome. *Psychosomatics*, 44(6), 471-478. doi: <https://doi.org/10.1176/appi.psy.44.6.471>

Ki, P., Rohner, R. P., Britner, P. A., Halgunseth, L. C., & Rigazio-DiGilio, S. A. (2018). Coping with remembrances of parental rejection in childhood: Gender differences and associations with intimate partner relationships. *Journal of Child and Family Studies*, 27, 2441-2455. doi: <https://doi.org/10.1007/s10826-018-1074-8>

Kim, H. Y. (2013). Statistical notes for clinical researchers: Assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry Endodontics*, 38(1), 52-54. doi: <https://doi.org/10.5395/rde.2013.38.1.52>

Kim, J. H. (2019). Multicollinearity and misleading statistical results. *Korean Journal of Anesthesiology*, 72(6), 558-569. doi: <https://doi.org/10.4097%2Fkja.19087>

Kirmayer, L. J. (1984). Culture, affect and somatization part II. *Transcultural psychiatry*, 21(4), 237-262. doi: <https://doi.org/10.1177/136346158402100401>

Koelen, J. A., Houtveen, J. H., Abbass, A., Luyten, P., ... Geenen, R. (2014). Effectiveness of psychotherapy for severe somatoform disorder: Meta-analysis. *The British Journal of Psychiatry*, 204, 12-19. doi: [10.1192/bjp.bp.112.121830](https://doi.org/10.1192/bjp.bp.112.121830)

Konaszewski, K., Niesiobędzka, M., & Surzykiewicz, J. (2021). Resilience and mental health among juveniles: Role of strategies for coping with stress. *Health and Quality of Life Outcomes*, 19(58), 1-12. doi: <https://doi.org/10.1186/s12955-021-01701-3>

- Kopko, K. (2007). *Parenting styles and adolescents*. Retrieved March 25, 2023, from <https://www.countrysideday.org/wp-content/uploads/2014/09/Parenting-Styles-and-Adolescents.pdf>
- Kose, S., Subasi Tekintas, N., Benk Durmus, F., Akin, E., & Sayar, K. (2017). Reliability, validity, and factorial structure of the turkish version of the bradford somatic inventory (turkish BSI-44) in a university student sample. *Psychiatry and Clinical Psychopharmacology*, 27(1), 62-69. doi: <http://dx.doi.org/10.1080/24750573.2017.1293245>
- Kozumplik, O., Uzun, S., & Jakovljevic, M. (2009). Psychotic disorders and comorbidity: Somatic illness vs. side effect. *Psychiatria Danubina*, 21(3), 361-367.
- Kroenke, K. (2007). Efficacy of treatment for somatoform disorders: A review of randomized controlled trials. *Psychosomatic Medicine*, 69(9), 881-888. doi: <https://doi.org/10.1097/psy.0b013e31815b00c4>
- Kroenke, K., & Mangelsdorff, D. (1989). Common symptoms in ambulatory care: Incidence, evaluation, therapy, and outcome. *The American Journal of Medicine*, 86(3), 262-266. doi: [https://doi.org/10.1016/0002-9343\(89\)90293-3](https://doi.org/10.1016/0002-9343(89)90293-3)
- Kuhar, M., & Zager Kocjan, G. (2021). Adverse childhood experiences and somatic symptoms in adulthood: A moderated mediation effects of disturbed self-organization and resilient coping. *Psychological Trauma: Theory, Research, Practice, and Policy*, 14(8), 1288-1298. doi: 10.1037/tra0001040
- Kulaksız, G., & Erensoy, H. (2021). 18-65 yaş kişilerde erken çocuklukta babalarından algıladıkları kabul/red ilişkisinin somatizasyon ve anksiyete geliştirme etkisinin incelenmesi. *International Journal of Academic Medicine and Pharmacy*, 3(2), 142-149. doi: <http://dx.doi.org/10.29228/jamp.49321>
- Kuruca, F., Özer, M., Kaplan, Ö., & Tüysüz, Ö. N. (2019, December 25). *Çocuk istismarı araştırma raporu*. Retrieved January 7, 2023, from [https://www.academia.edu/42671150/Çocuk\\_İstismarı\\_Araştırma\\_Raporu](https://www.academia.edu/42671150/Çocuk_İstismarı_Araştırma_Raporu)

- Leeb, R. T., Paulozzi, L. J., Melanson, C., Simon, T. R., & Arias, I. (2008, January). *Child maltreatment surveillance: Uniform definitions for public health and recommended data elements*. Retrieved December 13, 2022, from [https://www.cdc.gov/violenceprevention/pdf/cm\\_surveillance-a.pdf](https://www.cdc.gov/violenceprevention/pdf/cm_surveillance-a.pdf)
- Levine, S. (2003) Psychological and social aspects of resilience: A synthesis of risks and resources. *Dialogues in Clinical Neuroscience*, 5(3), 273-280. doi: 10.31887/ DCNS.2003.5.3/slevine
- Lipowski, Z. J. (1967). Review of consultation psychiatry and psychosomatic medicine. II. clinical aspects. *Psychosomatic Medicine*, 29(3), 201-224. doi: <https://doi.org/10.1097/00006842-196705000-00001>
- Lipowski, Z. J. (1986). Somatization: A borderland between medicine and psychiatry. *Canadian Medical Association Journal*, 135(6), 609-614.
- Lipowski, Z. J. (1988). Somatization: the concept and its clinical application. *American Journal of Psychiatry*, 145(11), 1358-1368. doi: <https://doi.org/10.1176/ajp.145.11.1358>
- Lipowski, Z. J. (1990). Somatization and depression. *Psychosomatics*, 31(1), 13-21. doi: [https://doi.org/10.1016/s0033-3182\(90\)72212-8](https://doi.org/10.1016/s0033-3182(90)72212-8)
- Little, T. D. (2013). *Longitudinal structural equation modeling*. Guilford Press.
- Liu, L., Liu, C., & Zhao, X. (2017). Linking anger trait with somatization in low-grade college students: Moderating roles of family cohesion and adaptability. *Shanghai Archives of Psychiatry*, 29(1), 30-40. doi: <http://dx.doi.org/10.11919/j.issn.1002-0829.216102>
- Loeb, T. B., Joseph, N. T., Wyatt, G. E., Zhang, M., Chin, D., Thames, A., & Aswad, Y. (2018). Predictors of somatic symptom severity: The role of cumulative history of trauma and adversity in a diverse community sample. *Psychological Trauma*, 10(5), 491-498. doi: 10.1037/tra0000334

- Luthar, S. S. , & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. *Development and Psychopathology*, *12*(4), 857-885. doi: <https://doi.org/10.1017%2Fs0954579400004156>
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, *71*(3), 543-562. doi: <https://doi.org/10.1111%2F1467-8624.00164>
- Luthar, S. S. , Sawyer, J. A., & Brown, P. J. (2006). Conceptual issues in studies of resilience: Past, present, and future research. *Annals of the New York Academy of Sciences*, *1904*, 105-115. doi: <https://doi.org/10.1196/annals.1376.009>
- MacAlpine, I. (1952). Psychosomatic symptom formation. *Lancet*, *1*(6702), 278-282. doi: [https://doi.org/10.1016/s0140-6736\(52\)90341-3](https://doi.org/10.1016/s0140-6736(52)90341-3)
- MacDermid, S. M., Samper, R., Schwarz, R., Nishida, J., & Nyaronga, D. (2008, July). *Understanding and promoting resilience in military families*. Retrieved March 26, 2023, from <https://www.mfri.purdue.edu/wp-content/uploads/2018/03/Understanding-and-Promoting-Resilience.pdf>
- Macedo, B. B. D., von Werne Baes, C., Menezes, I. C., & Juruena, M. F. (2019). Child abuse and neglect as risk factors for comorbidity between depression and chronic pain in adulthood. *The Journal of Nervous and Mental Disease*, *207*(7), 538-545. doi: <https://doi.org/10.1097/NMD.0000000000001031>
- Mark, G., & Smith, A. P. (2018). Coping and its relation to gender, anxiety, depression, fatigue, cognitive difficulties and somatic symptoms. *Journal of Education, Society and Behavioural Science*, *25*(4), 1-22. doi: [10.9734/JESBS/2018/41894](https://doi.org/10.9734/JESBS/2018/41894)
- Masten, A. S. (2018). Resilience theory and research on children and families: Past, present, and promise. *Journal of Family Theory & Review*, *10*(1), 12-31. doi: [10.1111/jftr.12255](https://doi.org/10.1111/jftr.12255)

- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2(4), 425-444. doi: <https://doi.org/10.1017/S0954579400005812>
- Masuda, A., Yamanaka, T., Hirakawa, T., Koga, Y., Minomo, R., Munemoto, T., & Tei, C. (2007). Intra- and extra-familial adverse childhood experiences and a history of childhood psychosomatic disorders among Japanese university students. *BioPsychoSocial Medicine*, 1(9), 1-7. doi: <https://doi.org/10.1186/1751-0759-1-9>
- Moeller, T. P., & Bachmann, G. A. (1993). The combined effects of physical, sexual, and emotional abuse during childhood: Long-term health consequences for women. *Child Abuse & Neglect*, 17(5), 623-640. doi: [https://doi.org/10.1016/0145-2134\(93\)90084-i](https://doi.org/10.1016/0145-2134(93)90084-i)
- Mrazek, P. J., & Haggerty, R. J. (Eds.) (1994). *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research*. Washington, DC: National Academy of Sciences.
- Mulryan, K., Cathers, P., & Fagin, A. (2000). Combating abuse part 2: Protecting the child. *Nursing*, 30(7), 39-43. doi: <https://doi.org/10.1097/00152193-200030070-00021>
- Mumford, D. B., Bavington, J. T., Bhatnagar, K. S., Hussain, V., Mirza, S., & Naraghi, M. M. (1991). The bradford somatic inventory: A multi-ethnic inventory of somatic symptoms reported by anxious and depressed patients in britain and the indo-pakistan subcontinent. *Brisith Journal of Psychiatry*, 158, 379-386. doi: <https://doi.org/10.1192/bjp.158.3.379>
- Mumford, D. B., Minhas, F. A., Akhtar, I., Akhter, S., & Mubbashar, M. H. (2000). Stress and psychiatric disorder in urban rawalpindi. *Brisith Journal of Psychiatry*, 177, 557-562. doi: <https://doi.org/10.1192/bjp.177.6.557>

- Murberg, T. A. (2012). The influence of optimistic expectatipns and negative life events on somatic symptoms among adolescents: A one-year prospective study. *Psychology*, 3(2), 123-127. doi: <http://dx.doi.org/10.4236/psych.2012.32018>
- Naz, F., & Kausar, R. (2012). Parental rejection and comorbid disorders in adolescents with somatization disorder. *Journal of Behavioural Sciences*, 22(1), 125-142.
- Nettles, S. M., Mucherah, W., & Jones, D. S. (2000). Understanding resilience: The role of social resources. *Journal of Education for Students Placed at Risk*, 5(1&2), 47-60. doi: <https://doi.org/10.1080/10824669.2000.9671379>
- Nobre, J. S., & Singer, J. M. (2007). Residual analysis for linear mixed models. *Biometrical Journal*, 49(6), 863-875. doi: 10.1002/bimj.200610341 863
- O'Dougherty Wright, M., & Masten, A. S. (2005). Resilience processes in development: Fostering positive adaptation in the context of adversity. In S. Goldstein, & R. B. Brooks (Eds.). *Handbook of resilience in children* (pp. 17-37). New York, USA: Springer Science + Business Media.
- O'Hagan, K. P. (1995). Emotional and psychological abuse: problems of definition. *Child Abuse & Neglect*, 19(4), 449-461. doi: [https://doi.org/10.1016/0145-2134\(95\)00006-t](https://doi.org/10.1016/0145-2134(95)00006-t)
- Osofsky, H. J., Weems, C. F., Graham, R. A., Osofsky, J. D., Hansel, T. C., & King, L. S. (2019). Perceptions of resilience and physical health symptom improvement following post disaster integrated health services. *Disaster Medicine and Public Health Preparedness*, 13(2), 223-229. doi: [10.1017/dmp.2018.35](https://doi.org/10.1017/dmp.2018.35)
- Özcan, B. (2005). *Anne-babaları boşanmış ve anne-babaları birlikte olan lise öğrencilerinin yılmazlık özellikleri ve koruyucu faktörler açısından karşılaştırılması* (Master's thesis). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=G1qNW1GrljWw2g9hI52DFQ&no=ajomN8YOLOpPBuunHhPRZA>

- Özer, E. (2013). *Üniversite öğrencilerinin psikolojik sağlık düzeylerinin duygusal zeka ve beş faktör kişilik özellikleri açısından incelenmesi* (PhD dissertation). Retrieved from <https://acikerisim.erbakan.edu.tr/xmlui/handle/20.500.12452/747>
- Özgentürk, İ., Karğın, V., Baltacı, H. (2012). Aile içi şiddet ve şiddetin nesilden nesile iletilmesi. *Turkish Journal of Police Studies*, 14(4), 55-77.
- Park, S. H., Naliboff, B. D., Shih, W., Presson, A. P., ... Chang, L. (2018). Resilience is decreased in irritable bowel syndrome and associated with symptoms and cortisol response. *Neurogastroenterology & Motility*, 30(1), 1-20. doi: 10.1111/nmo.13155
- Parker, C. H., Naliboff, B. D., Shih, W., Presson, A. P., Kilpatrick, L., Gupta, A., ... Chang, L. (2020). The role of resilience in irritable bowel syndrome, other chronic gastrointestinal conditions and the general population. *Clinical Gastroenterology and Hepatology*, 9(12), 2541-2550. doi: <https://doi.org/10.1016/j.cgh.2020.08.043>
- Petrowski K., Brähler, E., & Zenger, M. (2014). The relationship of parental rearing behavior and resilience as well as psychological symptoms in a representative sample. *Health and Quality of Life Outcomes*, 12(95), 1-9. doi: 10.1186/1477-7525-12-95
- Polcari, An., Rabi, K., Bolger, E., & Teicher, M. H. (2014). Parental verbal affection and verbal aggression in childhood differentially influence psychiatric symptoms and wellbeing in young adulthood. *Child & Abuse Neglect*, 38(1), 91-102. doi: 10.1016/j.chiabu.2013.10.003
- Ports, K. A., Ford, D. C., Merrick, M. T., & Guinn, A. S. (2020). Chapter 2 aces: Definitions, measurement, and prevalence. In G. J. G. Admundson & T. O. Afifi (Eds.). *Adverse Childhood Experiences* (pp. 17-34). Elsevier Inc. doi: <https://doi.org/10.1016/B978-0-12-816065-7.00002-1>

- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods, 16*(2), 93-115. doi: 10.1037/a0022658
- Psychosomatic. (n.d.). *APA dictionary of psychology*. Retrieved from <https://dictionary.apa.org/psychosomatic>
- Soffer, N., Gilboa-Schechtman, E., & Shahar, G. (2008). The relationship of childhood emotional abuse and neglect to depressive vulnerability and low self-efficacy. *International Journal of Cognitive Therapy, 1*(2), 151–162. doi: <https://doi.org/10.1521/ijct.2008.1.2.151>
- Somatoform disorder. (n.d.). *APA dictionary of psychology*. Retrieved from <https://dictionary.apa.org/somatoform-disorder>
- Rangell, L. (1959). The nature of conversion. *American Psychoanalytic Association, 7*(4), 632-662. doi: <https://doi.org/10.1177/000306515900700403>
- Rezaki, M. S., Özgen, G., Kaplan, İ., Gürsoy, B. M., Sağduyu, A., & Öztürk, O. M. (1995). Results from the ankara centre. In T. B. Üstün, & N. Sartorius (Eds.). *Mental Illness in General Health Care* (pp. 39-55). England: John Wiley & Sons.
- Richardson, G. E., Neiger, B. L., Jensen, S., & Kumpfer, K. L. (1990). The resiliency model. *Health Education, 21*(6), 33-39. doi: <http://dx.doi.org/10.1080/00970050.1990.10614589>
- Rief, W., & Martin, A. (2014). How to use the new dsm-5 somatic symptom disorder diagnosis in research and practice: A critical evaluation and a proposal for modifications. *The Annual Review of Clinical Psychology, 10*, 339-367. doi: <https://doi.org/10.1146/annurev-clinpsy-032813-153745>
- Resilience. (n.d.). *APA dictionary of psychology*. Retrieved from <https://dictionary.apa.org/resilience>
- Rohner, R. P. (2005). Glossary of significant concepts in parental acceptance-rejection theory. In R. P. Rohner, & A. Khaleque (Eds.). *Handbook for the*

*Study of Parental Acceptance and Rejection*. Rohner Research Publications.  
Retrieved from  
[https://www.researchgate.net/publication/255709642\\_Glossary\\_of\\_significant\\_concepts\\_in\\_Parental\\_Acceptance-Rejection\\_Theory\\_IPARTheory](https://www.researchgate.net/publication/255709642_Glossary_of_significant_concepts_in_Parental_Acceptance-Rejection_Theory_IPARTheory)

Rohner, R. P. (2016). *Introduction to interpersonal acceptance-rejection theory (IPARTheory), methods, evidence, and implications*. Retrieved from  
<https://csiar.uconn.edu/wp-content/uploads/sites/494/2021/06/Introduction-to-IPARTheory-draft-6.23.2021.pdf>

Rohner, R. P. (2021). Introduction to interpersonal acceptance-rejection theory (IPARTheory) and evidence. *Online Readings in Psychology and Culture*, 6(1), 3-65. <https://doi.org/10.9707/2307-0919.1055>

Rohner, R. P., & Ali, S. (2016). Parental acceptance-rejection questionnaire (PARQ). In V. Zeigler-Hill, & T.K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences*. doi: 10.1007/978-3-319-28099-8\_56-1

Roy, S. (2021). *Breaking the cycle: The association between adverse childhood experiences (ACEs) and protective factors; hope spirituality and cultural identity on the quality of future parent- child relationships*. (Master's thesis). Retrieved from <https://mro.massey.ac.nz/handle/10179/17270>

Rutter, M. (1985). Resilience in the face of adversity protective factors and resistance to psychiatric disorder. *The British Journal of Psychiatry*, 147, 598-611. doi: 10.1192/bjp.147.6.598

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57(3), 316-331. doi: <https://doi.org/10.1111/j.1939-0025.1987.tb03541.x>

Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. E. Rolf, A. S. Masten, D. Cicchetti, K. H. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 181–214). Cambridge University Press.

- Rutter, M. (1995). Psychosocial adversity: Risk, resilience & recovery. *Southern African Journal of Child and Adolescent Psychiatry*, 7(2), 75-88. doi: <http://dx.doi.org/10.1080/16826108.1995.9632442>
- Sameroff, A. J. (2000). Developmental systems and psychopathology. *Development and Psychopathology*, 12(3), 297-312. doi: <https://doi.org/10.1017/s0954579400003035>
- Sart, Z. H., Börkan, B., Erkman, F., & Serbest, S. (2016). Resilience as a mediator between parental-acceptance rejection and depressive symptoms among university students in turkey. *Journal of Counseling & Development*, 94(2), 195-209. doi: 10.1002/jcad.12076
- Satici, S. A. (2016). Psychological vulnerability, resilience, and subjective well-being: The mediating role of hope. *Personality and Individual Differences*, 102, 68-73. doi: <https://doi.org/10.1016/j.paid.2016.06.057>
- Schurman, R. A., Kramer, P. D., & Mithcell, J. B. (1985). The hidden mental health network. *Archives of General Psychiatry*, 42(1), 89-94. doi: <https://doi.org/10.1001/archpsyc.1985.01790240091010>
- Senese, V. P., Bacchini, D., Miranda, M. C., Aurino, C., Somma, F., Amato, G., & Rohner, R. P. (2016). The adult parental acceptance–rejection questionnaire: A cross-cultural comparison of italian and american short forms. *Parenting*, 16(4), 219-236. doi: 10.1080/15295192.2016.1180943
- Shonkoff, J. P. (2016). Capitalizing on advances in science to reduce the health consequences of early childhood adversity. *JAMA Pediatrics*, 170(10), 1003-1007. doi: 10.1001/jamapediatrics.2016.1559
- Silber, T. J. (2011). Somatization disorders: Diagnosis, treatment, and prognosis. *Pediatrics in Review*, 32, 56-64. doi: 10.1542/pir.32-2-56
- Sisto, A., Vicinanza, F., Campanozzi, L. L., Ricci, G., Tartgalini, D., & Tambone, V. (2019). Towards a transversal definition of psychological resilience: A

literature review. *Medicina*, 55(11), 1-22. doi:  
<https://doi.org/10.3390/medicina55110745>

Somatic. (n.d.). *APA dictionary of psychology*. Retrieved from  
<https://dictionary.apa.org/somatic>

Somatization. (n.d.). *APA dictionary of psychology*. Retrieved from  
<https://dictionary.apa.org/somatization>

Sperry, D. M., & Widom, C. S. (2013). Child abuse and neglect, social support, and psychopathology in adulthood: A prospective investigation. *Child Abuse Neglect*, 37,(6), 415-425. doi: 10.1016/j.chiabu.2013.02.006

Spertus, I. L., Yehuda, R., Wong, C. M., Halligan, S., & Seremetis, S. V. (2003). Childhood emotional abuse and neglect as predictors of psychological and physical symptoms in women presenting to a primary care practice. *Child Abuse & Neglect*, 27(11), 1247-1258. doi:  
<https://doi.org/10.1016/j.chiabu.2003.05.001>

Stouthamer-Loeber, M., Loeber, R., Farrington, D. P., Zhang, Q., Van Kammen, W., & Maguin, E. (1993). The double edge of protective and risk factors for delinquency: Interrelations and developmental patterns. *Development and Psychopathology*, 5(4),683-701. doi:  
<https://psycnet.apa.org/doi/10.1017/S0954579400006234>

Stuart, S., & Noyes, R. (1999). Attachment and interpersonal communication in somatization. *Psychosomatics*, 40(1), 34-43. doi:  
[https://doi.org/10.1016/s0033-3182\(99\)71269-7](https://doi.org/10.1016/s0033-3182(99)71269-7)

Su, Y., Meng, X., Yang, G., & D'Arcy, C. (2022). The relationship between childhood maltreatment and mental health problems: Coping strategies and social support act as mediators. *BMC Psychiatry*, 22(359), 1-11. doi:  
<https://doi.org/10.1186/s12888-022-04001-2>

- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. England: Pearson Education Limited.
- Tanner, J. J., Johnson, A. J., Terry, E. L., Cardoso, J., Garvan, C., Staud, R., ... Sibille, K. T. (2021). Resilience, pain and the brain: Relationships differ by sociodemographics. *Journal of Neuroscience Research*, 99(5), 1207-1235. doi: 10.1002/jnr.24790
- Taycan, O., Sar, V., Celik, C., & Erdogan-Taycan, S. (2014). Trauma-related psychiatric comorbidity of somatization disorder among women in eastern turkey. *Comprehensive Psychiatry*, 55(8), 1837-1846. doi: <http://dx.doi.org/10.1016/j.comppsy.2014.08.052>
- Terre, L., & Ghiselli W. (1997). A developmental perspective on family risk factors in somatization. *Journal of Psychosomatic Research*, 42(2), 197-208. doi: [https://doi.org/10.1016/s0022-3999\(96\)00237-1](https://doi.org/10.1016/s0022-3999(96)00237-1)
- Tugade, M. M., Fredrickson, B. L., & Feldman Barrett, L. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of Personality*, 72(6), 1161-1190. doi: <https://doi.org/10.1111%2Fj.1467-6494.2004.00294.x>
- United Nations Children's Fund (2010). *Türkiye'de çocuk istismarı ve aile içi şiddet araştırması özet raporu*. Retrieved from <https://www.unicef.org/turkiye/raporlar/turkiyede-çocuk-istismari-ve-aile-içi-şiddet-araştırması-özet-raporu-2010>
- Uğurlu, M., & Soydal, T. (2004). Türkiye'de ruh sağlığı hizmetlerinin birinci basamak sağlık hizmetlerine entegrasyonu: Birinci basamakta ruh sağlığı eğitim programı. *Kriz Dergisi*, 12(1), 41-45. Retrieved from <https://dergipark.org.tr/tr/download/article-file/595563>
- Uluşahin, A., Başoğlu, M., & Paykel, E. S. (1994). Across-cultural comparative study of depressive symptoms in british and turkish clinical samples. *Social*

*Psychiatry and Psychiatric Epidemiology*, 29(1), 31-39. doi:  
<https://doi.org/10.1007/bf00796446>

Ünal, B., Ergör, G., Dinç Horasan, G., Kalaça, S., & Sözmen, K. (2013). *Türkiye kronik hastalıklar ve risk faktörleri sıklığı çalışması: Temel bulgular*. Retrieved January 31, 2023, from  
<https://ekutuphane.saglik.gov.tr/Ekutuphane/kitaplar/khrfat.pdf>

Van Griethuijsen, R. A. L. F., Van Eijck, M. W., Haste, H., Den Brok, P. J., Skinner, N. C., Mansour, N., ... BouJaoude, S. (2014). Global patterns in students' views of science and interest in science. *Research in Science Education*, 45(4), 581-603. doi: <http://dx.doi.org/10.1007/s11165-014-9438-6>

Violon, A. (1985). Family etiology of chronic pain. *International Journal of Family Therapy*, 7(4), 235-246. doi:  
<https://psycnet.apa.org/doi/10.1007/BF00924025>

Wald, J., Taylor, S., Asmundson, G. J. G., Jang, K. L., & Stapleton, J. (2006). *Literature review of concepts: Psychological resiliency*. Retrieved from  
<https://apps.dtic.mil/sti/pdfs/ADA472961.pdf>

Waldinger, R. J., Schulz, M. S., Barsky, A. J., & Ahern, D. K. (2006). Mapping the road from childhood trauma to adult somatization: The role of attachment. *Psychosomatic Medicine*, 68(1), 129-135. doi:  
<https://doi.org/10.1097/01.psy.0000195834.37094.a4>

Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family Process*, 42(1), 1-18. doi: <https://doi.org/10.1111/j.1545-5300.2003.00001.x>

Weigel, A., Maehder, K., Witt, M., & Löwe, B. (2020). Psychotherapists' perspective on the treatment of patients with somatic symptom disorders. *Journal of Psychosomatic Research*, 138, 1-7.  
<https://doi.org/10.1016/j.jpsychores.2020.110228>

- Werner, E. E. (1996). Vulnerable but invincible: High risk children from birth to adulthood. *European Child & Adolescent Psychiatry*, 5, 47-51. doi: <https://doi.org/10.1111/j.1651-2227.1997.tb18356.x>
- Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. *Sociological Methodology*, 8, 84-136. doi: <https://doi.org/10.2307/270754>
- World Health Organization. (2006). *Çocuklara kötü muamelenin önlenmesi: bu konuda harekete geçilmesine ve kanıt toplanmasına yönelik bir kılavuz*. Retrieved December 6, 2022, from [https://apps.who.int/iris/bitstream/handle/10665/43499/9241594365\\_tur.pdf?sequence=21&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/43499/9241594365_tur.pdf?sequence=21&isAllowed=y)
- World Health Organization. (2022, 19 September). *Child Maltreatment*. Retrieved December 23, 2022, from <https://www.who.int/news-room/fact-sheets/detail/child-maltreatment>
- World Health Organization, & World Organization of Family Doctors. (2008). *Integrating mental health into primary care: A global perspective*. Retrieved January 31, 2023, from [https://apps.who.int/iris/bitstream/handle/10665/43935/9789241563680\\_eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/43935/9789241563680_eng.pdf?sequence=1&isAllowed=y)
- Yehuda, R., Flory, J. D., Southwick, S., & Charney, D. S. (2004). Developing an agenda for translational studies of resilience and vulnerability following trauma exposure. *Annals of the New York Academy of Sciences*, 1071, 379-396. doi: 10.1196/annals.1364.028
- Zakeri, H., Jowkar, B., & Razmjooe, M. (2010). Parenting styles and resilience. *Procedia Social and Behavioral Sciences*, 5, 1067-1070. doi: <https://doi.org/10.1016/j.sbspro.2010.07.236>
- Zimmer-Gembeck, M. J., & Skinner, E. A. (2016). The development of coping: Implications for psychopathology and resilience. In D. Cicchetti (Ed.)

*Developmental Psychopathology*, (pp. 1-61). John Wiley & Sons, Inc. doi:  
<https://doi.org/10.1002/9781119125556.devpsy410>

Zuckerman, M. (1999). Diathesis-stress models. *Vulnerability to psychopathology: A biosocial model* (pp. 3–23). American Psychological Association. doi:  
<https://doi.org/10.1037/10316-001>

