

RELATIONSHIPS AMONG CHILDHOOD EXPERIENCES,  
EMOTION REGULATION, SHAME COPING  
AND PSYCHOLOGICAL ADJUSTMENT OF COLLEGE STUDENTS

İREM SİMSAR

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AND PSYCHOLOGICAL ADJUSTMENT OF COLLEGE STUDENTS

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İrem Simsar

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# DECLARATION OF ORIGINALITY

I, İrem Simsar, certify that

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## ABSTRACT

### Relationships Among Childhood Experiences, Emotion Regulation, Shame Coping and Psychological Adjustment of College Students

The purpose of this study was to investigate and explore the possible pathways of adverse and benevolent childhood experiences and psychological distress mediated by emotion regulation strategies and shame coping of college students who are in the emerging adulthood period. The sample of the study consisted of 393 college students. The data collection instruments were Kessler Psychological Distress Scale (K10-PDS), Adverse Childhood Experiences (ACEs) Scale, Benevolent Childhood Experiences (BCEs) Scale, Emotion Regulation Questionnaire, The Compass of Shame Scale (CoSS). Path analysis of structural equation modeling (SEM) was used to explore possible pathways among variables. Results indicated that both ACEs and BCEs were directly related with psychological distress of college students (for ACEs  $\beta = .139, p < .05$ ; for BCEs  $\beta = -.104, p < .05$ ). Also, both ACEs and BCEs were indirectly associated with psychological distress of college students via emotion regulation strategies namely reappraisal and suppression and maladaptive shame coping style (for ACEs  $\beta = .088, p < .001$ ; for BCEs  $\beta = -.139, p < .001$ ). Psychological counseling and preventive interventions for college students may focus on providing trainings on increasing adaptive emotion regulation and shame coping skills.

*Keywords:* Emerging adulthood, college students, psychological distress, childhood experiences, emotion regulation, shame coping.

## ÖZET

### Üniversite Öğrencilerinin Çocukluk Deneyimleri ile Psikolojik Uyumlarının İlişkisinde Duygu Düzenleme ve Utançla Baş Etmenin Rolü

Bu çalışmanın amacı, beliren yetişkinlik dönemindeki üniversite öğrencilerinin olumsuz ve olumlu çocukluk deneyimlerinin ve psikolojik sorunlarının arasındaki ilişkilerde duygu düzenleme stratejileri ve utançla baş etmenin rolünü araştırmaktır. Araştırmanın örneklemini 393 üniversite öğrencisinden oluşmaktadır. Veri toplama araçlarını Kessler Psikolojik Sıkıntı Ölçeği, Olumsuz Çocukluk Deneyimleri Ölçeği, Olumlu Çocukluk Deneyimleri Ölçeği, Duygu Düzenleme Ölçeği, Utanç Pusulası Ölçeği oluşturmaktadır. Değişkenler arasındaki olası ilişkileri keşfetmek için yapısal eşitlik modellemesinin (SEM) yol analizi kullanılmıştır. Sonuçlar olumsuz ve olumlu çocukluk deneyimlerinin üniversite öğrencilerinin psikolojik durumları ile doğrudan ilişkili olduğunu göstermiştir (olumsuz deneyimler için  $\beta = .139, p < .05$ ; olumlu deneyimler için  $\beta = -.104, p < .05$ ). Ayrıca, olumsuz ve olumlu çocukluk deneyimleri, yeniden değerlendirme ve bastırma duygu düzenleme stratejileri ve utançla uyumsuz baş etme stili aracılığıyla üniversite öğrencilerinin psikolojik durumlarıyla ilişkilendirilmiştir (olumsuz deneyimler için  $\beta = .088, p < .001$ ; olumlu deneyimler için  $\beta = -.139, p < .001$ ). Üniversite öğrencilerine yönelik önleyici psikolojik danışmanlık müdahaleleri, olumlu duygu düzenleme ve utançla baş etme becerilerini arttırmaya yönelik eğitimler vermeye odaklanabilir.

*Anahtar kelimeler:* Beliren yetişkinlik, üniversite öğrencileri, psikolojik sıkıntı, çocukluk deneyimleri, duygu düzenleme, utançla baş etme.

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## CHAPTER 1

### INTRODUCTION

World Health Organization (WHO) defines mental health as “a state of well-being that enables people to cope with the stresses of life, to realize their abilities, to learn well and work well, and to contribute to their communities. Mental health is an integral component of health and well-being and is more than the absence of mental disorder.” (World Health Organization, 2022, p. 8). Additionally, WHO states the importance of mental health in general health of the individual by including it even in the definition of general health. Health is defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (Herrman et al., 2004, p. 12). Both definitions emphasize the importance of well-being and adjustment of the individual.

According to WHO, mental health issues are very commonly experienced and related to problems with functioning (Kessler et al., 2009). Mental health issues are one of the five most common disorders for young people’s morbidity, mortality, and dysfunction in the world (Gore et al., 2011). Between the ages of 14 and 25, nearly 75% of serious adult psychiatric problems, such as major depression, anxiety disorders, and substance misuse, present. (Kessler et al., 2005). According to an epidemiological meta-analysis study with 192 studies ( $N = 708,561$ ), the global age of onset was stated as the first mental disorder was observed before the age of 14 in 34.6% of the individuals, before the age of 18 in 48.4% of the individuals, and before the age of 25 in 62.5% of the individuals (Solmi et al., 2021). The peak (median) age of onset was stated as 14.5 to 18 years of age for all mental health problems (Solmi et al., 2021).

These ages of onset occur in the adolescence or emerging adulthood period. Emerging adulthood is a developmental period between the ages of 18 to 29 (Arnett et al., 2014). This period of life has unique challenges about romantic relationships and academic or career choices (Arnett et al., 2014). Emerging adults differ from the adolescents with their physical and sexual maturity (Arnett et al., 2014). Before adulthood, emerging adulthood is the process of changes before making stable decisions which brings a constant feeling of instability (Arnett et al., 2014). This period of life coincides with the traditional college education. For 12-month DSM-IV/CIDI disorders, the prevalence of mental health problems among college students is found as 20.3% (Auerbach et al., 2016).

Adverse Childhood Experiences (ACEs) are important factors that shape the later physical and psychological status of the individual (Felitti et al., 1998). ACEs are related with physical issues such as heart, lung, and liver disfunctions and cancer in adulthood (Felitti et al., 1998). More diverse ACEs are associated with depressed mood, smoking, obesity, physical inactivity, and suicide attempts (Felitti et al., 1998).

However, ACEs are not the only contributing factor to the later psychological adjustment of the individual. Individuals have both negative and positive experiences during the course of life. Therefore, ignoring the influences of benevolent childhood experiences on the later mental health brings out problems with the understanding of the mental health of the individual. Benevolent Childhood Experiences (BCEs) are relatively new concepts in the area of mental health research (Narayan et al., 2018). BCEs are the recollections of dyadic relationships that include the concepts of safety, support, security, and overall positive qualities of life such as satisfaction of the basic needs of food or sleep (Narayan et al., 2018). It was introduced with the aim of

providing a positive framework for ACEs, and the relationship between BCEs and ACEs is still to be explored (Crandall et al., 2019; Lieberman et al., 2005; J. S. Merrick et al., 2020; Narayan et al., 2018).

Childhood experiences are among the core factors in the development of the aspects of later psychological adjustment (Felitti et al., 1998; Narayan et al., 2018). They relate with many other concepts such as emotion regulation. Emotion regulation is a fundamental part of psychological interventions (Gratz et al., 2015; Sloan et al., 2017; Southward et al., 2021). It is a moderating concept that is related with the effectiveness of the mental health interventions (Berking et al., 2008). Individuals' emotion regulation strategies and their relationship with early experiences can have a moderating role in later mental health (Cloitre et al., 2019).

Shame is another concept that is scarcely investigated in the previous literature. The relationship between shame and early experiences are not thoroughly explored. Shame is a self-conscious emotion which is associated with the experiences of feeling unacceptable, incapable or unlovable (Price Tangney & Dearing, 2004). Shame is a mediating factor that may interfere with individuals' coping mechanisms (Black et al., 2013). Four shame coping styles were named as avoidance, withdrawal, attack other and attack self (Nathanson, 1994). Frequent utilization of these coping styles was stated as maladaptive (Nathanson, 1994). Maladaptive shame coping styles are potential risk factors for psychological distress and psychopathology in emerging adulthood (Elison, Pulos, et al., 2006; Mahtani et al., 2018). On the other hand, adaptive shame coping style was defined as reflecting on possible improvements on behavior and attitude, finding social support, and changing the environment for desired outcomes (Elison, Lennon, et al., 2006). Coping styles are important because shame may change the self-perception in

a negative direction and interpersonal relationships are affected in relation to it (Black et al., 2013). Therapeutic interventions occur in the form of interpersonal relationships; therefore, shame and related coping styles are related to the outcome of therapeutic interventions (Black et al., 2013).

From a psychological counseling perspective, it is important to examine the earliest possible intervention opportunities such as early childhood period for obtaining most effective results. Shame is one of the fundamental emotions that shape the coping styles of the individual (Black et al., 2013). Individuals' approach for coping with shame can be a contributing factor for later psychological adjustment. Therefore, to understand the pathways of psychological adjustment, shame-coping strategies can be considered as a mediating variable.

### 1.1 Significance of the study

College students are young adults with unique personal and environmental characteristics and stressors that may cause high levels of stress. Stress may be related with academic pressure, financial problems, increasing responsibilities, and changing housing conditions, sleeping, and eating habits (Ross, Niebling, & Heckert, 1999; as cited in Karatekin, 2018). Additionally, most college students are aged between 18 to 25 years (Arnett, 2000). This period of life brings unique issues with identity development and romantic relationship (Arnett, 2000). With increasing number of sources of stress, mental health problems of college students can emerge in this period of life (Kessler et al., 2005).

For 12-month DSM-IV/CIDI disorders, the prevalence of mental health problems among college students is 20.3% (Auerbach et al., 2016). As Karatekin (2018) stated, it is advantageous to investigate college students' mental health, because investigating those with ACEs helps researchers understand the influences of ACEs on health and provide new intervention methods.

The unique perspective of this thesis study comes from the inclusion of Benevolent Childhood Experiences (BCEs) and shame coping. BCEs are very recently added to the literature in the 2010s, therefore, there are scarce resources about the BCEs in any life stage. To understand the individual as a whole, it is not sufficient to investigate the early adversities only. Early positive factors should be considered to provide necessary psychological and developmental interventions such as social welfare and public health programs to support development and well-being of the individuals at any period in life (Crandall et al., 2019).

Shame is another topic that is scarcely studied topic in the literature. Experiences and individuals' maladaptive coping style of shame have not been studied with the inclusion of BCEs perspective. Shame, as an emotion, is related with the individuals' emotion regulation strategies. Individuals' ways of interacting and maladaptive coping with shame are other subjects of psychological counseling and developmental psychology and that are yet to be investigated.

In conclusion, a coherent perspective on childhood experiences and the addition of maladaptive shame coping are the unique aspects of this study. During the emerging adulthood period, many new sources of stress show up and mental health issues increase (Karatekin, 2018; Kessler et al., 2005). Therefore, investigating psychological distress during emerging adulthood is significant. Having a comprehensive understanding of

strengths and needs of the college students via childhood experiences, maladaptive shame coping, and emotion regulation is contributory to develop new and targeted intervention and support programs (Hanson et al., 2022; Karatekin, 2018; Mahtani et al., 2018).

## 1.2 Purpose of the study

The purpose of the study is to examine the mediating pathways of shame coping and emotion regulation strategies between both ACEs and BCEs on psychological adjustment of college students.

Hypotheses of the study were as follow:

Hypothesis 1. Both shame coping style and emotion regulation strategies would mediate the relationship between ACEs and BCEs with psychological distress.

Hypothesis 2. Higher numbers of ACEs would predict decreased use of reappraisal emotion regulation strategy and increased suppression emotion regulation strategy.

Hypothesis 3. Higher numbers of BCEs would predict increased use of reappraisal emotion regulation strategy and decreased suppression emotion regulation strategy.

Hypothesis 4. Higher numbers of ACEs would predict higher levels of maladaptive shame coping.

Hypothesis 5. Higher numbers of BCEs would predict lower levels of maladaptive shame coping.

Hypothesis 6. Higher levels of reappraisal emotion regulation strategy would predict lower psychological distress.

Hypothesis 7. Higher levels of suppression emotion regulation strategy would predict higher psychological distress.

Hypothesis 8. Greater maladaptive shame coping would increase psychological distress.

Discovering the earliest possible opportunities of intervention is the main purpose of this study. Exploring the relationship between early experiences and their projections to emerging adulthood by considering the role of emotion regulation strategies and shame-coping provide a perspective on psychological counseling interventions.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 College mental health

Emerging adulthood is the period of life between the ages of 18 to 25 (Arnett, 2000). In this period, individuals try to adjust the adulthood responsibilities such as career and romantic relationship decisions (Arnett, 2000). Also, emerging adulthood is the window of opportunity for the individuals to change their decisions frequently before settling down for one of the options (Arnett et al., 2014). The freedom of changing decisions can be seen as a burden of instability as well (Arnett et al., 2014). In terms of Erikson's developmental stages, emerging adulthood has the issues of both "identity formation vs. role confusion" from adolescence and "intimacy vs. isolation" from adulthood (Arnett et al., 2014). Mental health problems during this period are also developmental issues because of the possibilities of disruptions in the later stages of development of the individuals (Tanner, 2015).

Emerging adulthood period generally coincides with college education (Murray & Arnett, 2018). College students have unique struggles which may affect their mental health. Some of the factors that are associated with college students' mental health are demanding academic environment, financial distress, social isolation caused by transitioning to college and personal factors such as gender (Hartley, 2010; Jones et al., 2018; Peltz et al., 2021; Richardson et al., 2017).

It is stated that mental health issues are substantial disorders threatening the young people's health to the point of dysfunction, morbidity and mortality (Gore et al., 2011). Between the ages of 14 and 25 are the period of life that nearly 75% of the

serious adult mental health problems such as depression, anxiety disorders and substance abuse are seen (Kessler et al., 2005). For 12-month DSM-IV/CIDI disorders, the prevalence of mental health issues among college students is 20.3% (Auerbach et al., 2016). According to an epidemiological meta-analysis study with 192 studies ( $N = 708,561$ ), the global age of onset was stated as the first mental disorder was observed before the age of 14 in 34.6% of the individuals, before the age of 18 in 48.4% of the individuals, and before the age of 25 in 62.5% of the individuals (Solmi et al., 2021). The peak (median) age of onset was stated as 14.5 to 18 years of age for all mental health problems (Solmi et al., 2021).

Psychological adjustment of the college students is a major component of overall mental health (Conley et al., 2020). Psychological adjustment of the college students is defined with the components of psychological functioning, cognitive-affective strategies, social well-being, and life satisfaction (Conley et al., 2020; Garcia et al., 2020).

A longitudinal study investigated the changes in psychological adjustment through 4 years of college (Conley et al., 2020). Psychological adjustment was considered by the domains of psychological functioning, cognitive-affective strategies, and social well-being (Conley et al., 2020). Psychological functioning was measured with Rosenberg Self-Esteem Scale and the Depression Anxiety Stress Scale-21; cognitive-affective strategies were assessed with Brief COPE Scale, and the social adjustment was examined with the Social Support Appraisals Scale (Conley et al., 2020). The data collection was completed with five occasions; pre-transition, and at the end of four years (Conley et al., 2020). At pre-transition to college, 5,551 individuals, at the end of year-one 2,407 individuals, at the end of the year-two 1,394 individuals, at the

end of the year-three 1,801 individuals, and at the end of the year-four 1,071 individual participated in the study (Conley et al., 2020). The total longitudinal sample size was 5,532 participants (3,687 females, 1,845 males) with a mean age of 18.5 ( $SD = .40$ ) (Conley et al., 2020). Results indicated worsened psychological functioning by decreased self-esteem and increased depression scores; deteriorating cognitive-affective strategies and lowered social adjustment across the first two years of college (Conley et al., 2020). During the last two years of college, psychological functioning, cognitive-affective strategies, and social adjustment scores showed improvement, however only recovered to the pre-transition to college levels (Conley et al., 2020).

Another study that examined the relationship between psychological adjustment/maladjustment spectrum dimensions of depression, anxiety and stress, and the development of three self-regulation abilities, namely mastery, emotional regulation, and constructive thinking during the first year of college (Park et al., 2012). The data collection was completed with two occasions, the first time point was during the summer before college registration and the second one was two weeks prior to final examinations (Park et al., 2012). Participants were 175 students who will attend college at the first time point with a mean age of 17.9 (Park et al., 2012). At the second time point, 162 freshmen students completed the study participation (Park et al., 2012). Measurement tools utilized in the study were the Constructive Thinking Inventory (CTI), the Difficulties in Emotion Regulation Scale (DERS), the Personal Mastery Scale for the self-regulation abilities, Depression Anxiety Stress Scales (DASS-21) for psychological adjustment (Park et al., 2012). Results showed that self-regulation abilities deteriorated for 50% of the students for emotion regulation, 50.3% of the students for constructive thinking, and 54.6% of the students for mastery (Park et al., 2012). Depression

dimension of the psychological adjustment increased indicating worsened mental health ( $M_{T1} = 3.48$ ,  $SD_{T1} = 3.91$ ;  $M_{T2} = 3.97$ ,  $SD_{T2} = 4.93$ ,  $p < .10$ ). It was stated that changes in self-regulation predicted the changes in psychological adjustment,  $F(6, 139) = 12.73$ ;  $R^2 = .33$  for anxiety change,  $F(6, 145) = 14.08$ ;  $R^2 = .34$  for stress change,  $F(6, 143) = 14.36$ ; adj.  $R^2 = .35$  for depression change (Park et al., 2012).

The study of Garcia and colleagues (2020) investigated the relationship between parenting styles and adult psychosocial adjustment and cross-generational differences in parental practices in terms of warmth and strictness (Garcia et al., 2020). Participants of the study 184 middle-class families consisting of one college student, both parents, and at least one grandparent (Garcia et al., 2020). The age range of grandparents was 60 to 99 ( $M = 78.32$ ,  $SD = 6.90$ , 182 females and 145 males), age range of parents was 39 to 61 ( $M = 51.04$ ,  $SD = 4.17$ , 184 females and 176 males), and age range of college students was 20 to 29 ( $M = 22.73$ ,  $SD = 1.76$ , 95 females and 89 males) (Garcia et al., 2020). The measures utilized in the study were the Parental Socialization Scale (ESPA29) for parental socialization, the Multidimensional Self-Concept Scale (AF5) for self-concept, the Satisfaction with Life Scale (SWLS) for the life satisfaction dimension of well-being, and a single item measure for the happiness dimension of well-being (Garcia et al., 2020). Results indicated that parental warmth ( $\lambda = .937$ ,  $F(8, 1730.0) = 7.15$ ,  $p < .001$ ) and strictness practices ( $\lambda = 0.857$ ,  $F(6, 1732.0) = 23.11$ ,  $p < .001$ ) changed according to generation (Garcia et al., 2020). First generation parents were stated as using less affection than the second and third generation ones (Garcia et al., 2020). In contrast to parental warmth, parental strictness practices tended to decrease across generations ( $F(2, 865) = 65.77$ ,  $p < .001$ ) (Garcia et al., 2020). Findings showed that indulgent and authoritative parenting related with better psychosocial adjustment

than neglectful and authoritarian parenting style (social self-concept,  $F(6, 847) = 2.68, p = .014$ , family self-concept,  $F(6, 847) = 7.72, p < .001$ , and life satisfaction,  $F(6, 847) = 2.89, p = .009$ ) (Garcia et al., 2020).

A study was conducted to investigate the distribution and correlations of perceived stress across six major life areas of financial situation, health, relationships with family, relationships at work/school, problems experienced by loved ones and love life with 12-month period prevalence of six mental disorders such as major depressive disorder, bipolar disorder, generalized anxiety disorder, panic disorder, alcohol use disorder, drug use disorder (Karyotaki et al., 2020). The World Health Organization's World Mental Health International College Student Initiative gathered responses from 20,842 students from 24 universities in nine countries (Karyotaki et al., 2020). Most participants (57.6%) were between the ages of 16 to 18 (Karyotaki et al., 2020). The proportion of the females in the sample was 54.7% (Karyotaki et al., 2020).

Measurement tools utilized in the study were The MIDUS self-report scale of perceived stress for current stress, and the WMH-ICS survey instrument for six common mental disorders. Results indicated there was strong relationships between stress and odds of all mental disorders ( $F = 44.3\text{--}213.3, p < 0.001$ ) (Karyotaki et al., 2020).

In conclusion, college education coincides with the emerging adulthood period and it brings many sources of stress such as academic or career decisions and romantic relationships (Arnett et al., 2014). College students experience high levels of stress and mental health problems such as depression, anxiety and substance use disorder (Karyotaki et al., 2020; Park et al., 2012).

## 2.2 Adverse childhood experiences (ACEs)

Adverse childhood experiences have been considered as an important factor for adult health and psychopathology (Boullier & Blair, 2018; Karatekin, 2018). Adverse childhood experiences are defined as moderate to severe stressful childhood experiences in relation to neglect, physical, emotional, and sexual abuse, parental mental health problems, parental incarceration, and divorce in the first 18 years of life (Felitti et al., 1998). Adverse childhood experiences (ACEs) were defined firstly in the context of adult health risk behaviors and diseases in the Kaiser-Permanente study (Felitti et al., 1998).

It is stated that more diverse exposure to ACEs relates to more health risk behaviors, and physical diseases in adulthood (Felitti et al., 1998). These diseases include heart, lung and liver dysfunction and cancer which are generally leading causes of death in adulthood (Felitti et al., 1998). In terms of health risk behaviors, for the adults with more diverse ACEs, the risk and prevalence for depressed mood, smoking, obesity, physical inactivity, and suicide attempts increased (Felitti et al., 1998). ACEs were stated as common as half of the participants who had at least one category of adverse childhood experiences (Felitti et al., 1998). Further studies stated that ACEs are related with adult psychopathology such as Post Traumatic Stress Disorder, generalized anxiety disorder, depression, and other emotional difficulties (Chapman et al., 2004; Heim et al., 2000, 2010; Mersky et al., 2013). Early life adversity is related with hyper-reactive stress responses such as increased heart rates and sensitive stress-related biological systems including heightened amygdala activity (Heim et al., 2000).

ACEs has an economic burden for the society via the cost of hospitalization of the children aged between 0 to 18 (Rovi et al., 2004). It was stated that children with a history of emotional abuse or neglect had twice as many diagnoses or comorbidities compared to those without emotional abuse or neglect (Rovi et al., 2004). Unfortunately, these children had nine times higher risk for death during hospitalizations (Rovi et al., 2004).

The study of Clark and colleagues (2010) investigated the relationship between childhood adversity and adult psychopathology with a 45-year longitudinal study. The study had 9,377 participants at the end of 45 years (Clark et al., 2010). Childhood adversity is measured by a set of questions about illness, neglected appearance, maternal absence, care, parental physical and sexual abuse (Clark et al., 2010). The life-course psychopathology was measured with Revised Clinical Interview Schedule at mid-life, Malaise Inventory at the age of 23, and the internalizing and externalizing scales from the teacher version of the Rutter Scales at 16 years (Clark et al., 2010). The study utilized the odds ratio to examine the possibility of a particular exposure which is a risk factor such as childhood adversity for a particular outcome such as psychopathology (Szumilas, 2010). It was stated that childhood adversities such as divorce and parental absence were found cumulative and co-occurring with each other (Clark et al., 2010). It was reported that particularly sexual and physical abuse during childhood increased the likelihood of mid-life adult psychopathology at the age of 45 (Clark et al., 2010). Maternal absence was stated as related with psychopathology at the age of 16 but not at the ages of 23 or 45, and paternal absence predicted psychopathology at the ages of 16 and 23, however not at the age of 45 (Clark et al., 2010). It was stated that when the reported childhood adversity number increased, the likelihood of mid-life

psychopathology increased significantly (OR = 5.17, 95% CI [2.82, 9.50]) (Clark et al., 2010).

Another study investigated the relationship between childhood adversity and later personality disorders with a nationally representative sample of 34,653 individuals (Afifi et al., 2011). Childhood adversity was measured by Conflict Tactics Scale (Straus, 1979; Straus et al., 1996) and the Childhood Trauma Questionnaire (Bernstein et al., 1994), and personality disorder diagnoses were made by using the Alcohol Use Disorder and Associated Disabilities Interview Schedule-Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (AUDADIS-IV) (Afifi et al., 2011). The study utilized the odds ratio to examine the possibility of a particular exposure which is a risk factor such as childhood adversity for a particular outcome such as personality disorders (Szumilas, 2010). It was found that childhood adversity is related with adult personality disorders, mostly borderline (for physical abuse OR 2.04, 99% CI [1.70, 2.45]; for emotional abuse OR 2.31, 99% CI [1.87, 2.87]; for sexual abuse OR 2.47, 99% CI [2.05, 2.97]), schizotypal (for physical abuse OR 1.62, 99% [CI 1.28, 2.03]; for emotional abuse OR 1.76, 99% CI [1.35, 2.31]; for sexual abuse OR 2.05, 99% CI [1.59, 2.65]), antisocial (for physical abuse OR 2.42, 99% CI [1.97, 2.98]; for emotional abuse OR 2.58, 99% CI [1.95, 3.40]; for sexual abuse OR 2.17, 99% [CI 1.63, 2.89]), and narcissistic personality disorders (for physical abuse OR 1.70, 99% CI [1.45, 1.98]; for emotional abuse OR 1.72, 99% CI [1.39, 2.12]; for sexual abuse OR 1.64, 99% CI [1.34, 2.00]) (Afifi et al., 2011).

A study with 17,337 participants explored the enduring influences of childhood adversities (Anda et al., 2006). In order to measure ACEs, Adverse Childhood Experiences Questionnaire was employed, along with the adapted questions from



Conflict Tactics Scale (CTS) (Anda et al., 2006). For the assessment of mental health disturbances, medical review of systems (ROS) and the physical examination (PE) were utilized (Anda et al., 2006). All of the results were stated as adjusted for age, sex, race, and educational attainment (Anda et al., 2006). Results stated that there is a relationship between ACEs score of 4 or more and increased risk of affective (for panic reactions adjusted OR 2.5, 95% CI [2.2, 2.9]; for depressed affect adjusted OR 3.6, 95% CI [3.2, 4.0]; for anxiety adjusted OR 2.4, 95% CI [2.1, 2.8]), memory (adjusted OR 4.4, 95% CI [3.7, 5.2]) and somatic problems (for sleep disturbance adjusted OR 2.1, 95% CI [1.9, 2.4]; for multiple somatic symptoms adjusted OR 2.7, 95% CI [2.3, 3.2]), substance abuse (for smoking adjusted OR 1.8, 95% CI [1.5, 2.1]; for alcoholism adjusted OR 7.2, 95% CI [5.9, 8.9]; for illicit drug use adjusted OR 4.5, 95% CI [3.9, 5.2]; for injected drug use adjusted OR 11.1, 95% CI [6.2, 19.9]), obesity (adjusted OR 1.9, 95% CI [1.6, 2.2]) and aggression issues (adjusted OR 4.0, 95% CI [3.3, 4.8]) (Anda et al., 2006). It is also claimed that stress exposure to developing brain till 18 years of age has lasting effects on brain functions by changing the regulation and reward mechanisms of the brain (Anda et al., 2006).

The study of Merrick and colleagues (2017) with 7,465 participants (3,484 females; 3,981 males) investigated the relationship between ACEs and adult mental health outcomes. In the study, 26.2% of the participants (970 females; 987 males) reported at least one ACEs (M. T. Merrick et al., 2017). The measurements utilized in the study were ACE score, self-reported drug and alcohol usage, self-reported suicide attempt, and self-reported depressed affect that each variable in the study was assessed with a question developed by the researchers (M. T. Merrick et al., 2017). Results stated that people with more ACEs are more likely to have mental health problems such as

depressed affect, suicide attempts, alcohol use, and drug use. It was reported that emotional neglect and abuse are associated with drug (for emotional neglect OR 1.73, 99% CI [1.45, 2.05]; for emotional abuse OR 1.88, 99% CI [1.55, 2.28]) and alcohol abuse (for emotional neglect OR 1.39, 99% CI [1.15, 1.68]; for emotional abuse OR 1.46, 99% CI [1.15, 1.83]), depressive affect (for emotional neglect OR 1.84, 99% CI [1.56, 2.16]; for emotional abuse OR 1.90, 99% CI [1.57, 2.30]), and attempted suicide (for emotional neglect OR 4.11, 99% CI [3.13, 5.39]; for emotional abuse OR 5.59, 99% CI [4.22, 7.37]) indicating the consequences of emotional trauma during childhood (M. T. Merrick et al., 2017).

A study explored the cumulative influences of ACEs on psychological distress with the adult stress factors such as witnessing violence or death (Manyema et al., 2018). The study was conducted with 1,223 individuals (52% female) between the ages of 22 to 23 (Manyema et al., 2018). Results stated that participants with high ACEs reported had almost twelve times higher possibility of reporting high levels of stress in adulthood compared to those who reported no ACEs or lower levels of ACEs (Manyema et al., 2018). As for other predictors, living with someone with psychopathology (OR 2.25, 95% CI [1.45, 3.51]) and neglect (for emotional neglect OR 1.99, 95% CI [1.34, 2.93]; for physical neglect OR 1.64, 95% CI [1.00, 2.69]) in childhood were stated as significantly related with higher probability of adult stress (Manyema et al., 2018). After controlling for adult stress, it is stated that there is a dose response effect, in which increasing levels of exposure affects the risk of the outcome, between ACEs' score and psychological distress (Manyema et al., 2018). According to the study findings, it was suggested that early life adversity disrupts not only brain functions but also relates with dysregulation in other systems, sensitivity towards stress and stress related disorders that

persist throughout life (Manyema et al., 2018). Additionally, stressful events in adulthood are found to be increasing the possibility of psychological distress for whom having a history of ACEs (Manyema et al., 2018).

Osofsky and colleagues (2021) conducted a study with 303 pregnant women aged between 13 to 46 ( $M = 28.01$ ,  $SD = 6.23$ ) to investigate the relationship between the ACEs and perinatal symptoms of depression, anxiety, posttraumatic stress, and substance use and the moderation of the resilience on these relationships. The study assessed ACEs with ACEs Scale, depression with the Patient Health Questionnaire (PHQ-9), anxiety with the two-item Generalized Anxiety Disorder scale (GAD-2), posttraumatic stress with the abbreviated PTSD Checklist–Civilian version (PCL-C), substance use with The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), and resilience with the abbreviated Connor-Davidson Resilience Scale (CD-RISC2) (Osofsky et al., 2021). Results indicated that 24.1% of the participants reported four or more ACEs (Osofsky et al., 2021). It was stated that participants who reported more ACEs also reported more mental health problems in all categories of psychological distress assessed in the study (Osofsky et al., 2021). It was reported that there were significant group differences for anxiety symptoms,  $F(3, 297) = 11.48$ ;  $p < .001$ ; for depressive symptoms,  $F(3, 299) = 15.00$ ;  $p < .001$ ; and for posttraumatic stress symptoms,  $F(3, 299) = 41.84$ ;  $p < .001$  (Osofsky et al., 2021). Additionally, there was a significant positive relationship between overall ACEs score and tobacco use ( $\beta = .43$ ,  $S.E. = .10$ ,  $p < .001$ ) (Osofsky et al., 2021). In detail, results showed that childhood maltreatment subtype of ACEs positively related to anxiety symptoms ( $\beta = .14$ ,  $S.E. = .06$ ,  $p < .02$ ), depressive symptoms ( $\beta = .16$ ,  $S.E. = .06$ ,  $p < .01$ ), and posttraumatic

stress symptoms ( $\beta = .23$ ,  $S.E. = .05$ ,  $p < .001$ ) (Osofsky et al., 2021). For the household dysfunction subtype of ACEs, there was a significant positive relationship with posttraumatic stress symptoms ( $\beta = .13$ ,  $S.E. = .05$ ,  $p < .01$ ) (Osofsky et al., 2021). In terms of the moderation effect of the resilience, having fewer reported resilience factor of bouncing back from adversities moderated the positive correlation between household dysfunction and post-traumatic stress symptoms ( $\beta = .22$ ,  $S.E. = .07$ ,  $p < .00$ ) (Osofsky et al., 2021). However, this moderation effect was not found at high levels of reported resilience factor of bouncing back from illness or hardship ( $\beta = .01$ ,  $S.E. = .08$ ,  $p = .86$ ) (Osofsky et al., 2021).

Panisch and colleagues (2020) conducted a study with 581 parents (69% female) of young children to investigate the relationship between ACEs and protective factors among parents who were enrolled to a child maltreatment prevention program (Panisch et al., 2020). Protective factors were involved to the study were parental resilience, social connections, concrete support in times of need, and social and emotional competence of children (Kiplinger & Browne, 2014; as cited in (Panisch et al., 2020). The measurement used for assessing the protective factors was the Parents Assessment of Protective Factors scale (PAPF) (Panisch et al., 2020). The 2010 ACE module of the Behavioral Risk Factor Surveillance Survey (BRFSS) used for the measurement of parental history of ACEs (Panisch et al., 2020). In line with the previous literature, this study stated that ACEs and later lower socioeconomic status were highly related with lower levels of overall protective factors scores measured with PAPF ( $\beta = -.22$ ,  $S.E. = .065$ ,  $p = .001$ ) (Panisch et al., 2020). It was stated that higher ACEs scores were related with attenuated total protective factors of parental resilience, social connections,

concrete support in times of need, and social and emotional competence of children,  $r = -.16, p < .001$  (Panisch et al., 2020). Higher scores on ACEs were also associated with the reduced resilience subtypes which are parental resilience and social connections,  $r = -.12, p < .01$  (Panisch et al., 2020).

One of the earlier concepts of ACEs is the concept of Ghosts in the Nursery (Fraiberg et al., 1975). It can be thought as a particular kind of ACEs. Ghosts in the nursery is a metaphor for parents' unremembered early adverse experiences with their caregivers which they repeat them with their own young children (Fraiberg et al., 1975). Ghosts are the intruders of the past bringing the unheard needs, painful experiences, and parental abuse and neglect (Fraiberg et al., 1975). Because of these experiences and repetition of them during parenting, the cycle of adverse childhood experiences continues (Fraiberg et al., 1975). This approach provides an explanation for the cycle of adversity through generations. Fraiberg and colleagues (1975) stated that former caregiving experiences are not the core of the problem, but how individuals with these experiences distanced themselves from the affect makes the difference in outcomes. Distancing themselves from the caused emotions provides the necessary "motive and energy" for repetition of the negative caregiving practices (Fraiberg et al., 1975; Lieberman et al., 2005).

With ghosts in the nursery experiences, parents may see their children as negative figures from their past, identify them with the perpetrator, and react them with emotionally charged attitude with the limited flexibility to adapt the current conditions of the relationship (Lieberman et al., 2005).

ACEs have a substantial literature on their relationship with physical and psychological problems. Because of the developmental importance of the early

childhood, ACEs present lasting effects on the mental health of the individuals (Heim et al., 2000; Karatekin, 2018). Especially, stressful life periods or experiences such as academic distress or parenthood may emphasize the negative effects of ACEs (Karatekin, 2018; Panisch et al., 2020).

College students are not being the focus of investigating the prevalence and severity of the ACEs (Karatekin, 2018). In the literature, there are limited sources with a larger sample to understand the exact extensiveness of the ACEs among college students. One of the studies conducted in 1990s reported that, within a sample of college students from United States, 56 to 85% of them reported at least one severe ACE (Smyth et al., 2008; as cited in Karatekin, 2018). Another study with college students from United Kingdom noted that 56% of the students reported at least one ACE (McGavock & Spratt, 2014). A more recent study showed that 64% of the college students from University of Minnesota, United States reported at least one ACE (Boynton Health Service, 2015; as cited in Karatekin, 2018) A study conducted with 1,759 college students in Turkey reported that 49.7% of the participants have at least one ACE (Ulukol et al., 2013). The most frequently reported ACEs was physical abuse which was significantly higher in males (Ulukol et al., 2013). Physical abuse and domestic violence are stated as frequently concurrent with other types of ACEs (Ulukol et al., 2013).

A short-term longitudinal study explored the usage of ACEs to predict college students' risk for mental health difficulties and the mediational effect of current stress levels on the relationship between ACEs and later psychopathology (Karatekin, 2018). Participants were 239 college students (182 females) from a Midwest University of USA with a mean age of 20 ( $SD = 3.1$ ) (Karatekin, 2018). Data collection procedure consisted of two occasions, at the beginning and at the end of the semester (Karatekin, 2018).

ACEs were assessed by Early Adverse Experiences Questionnaire, current level of stress was measured with the Life Events Scale for Students, and levels of anxiety and depression were examined with Patient Health Questionnaire (PHQ) (Karatekin, 2018). Results stated that students with at least two ACEs are more likely to have anxiety or depressive disorder (32% for high ACEs, 13% for low ACEs) and suicidal ideation (20% for high ACEs, 9% for low ACEs) than students with one ACE (Karatekin, 2018). It is stated that having more ACEs is related with mental health problems among college students (Karatekin, 2018). Additionally, not perceived stress but the actual number of stress sources is reported as mediator for relationship between ACEs and depression scores ( $\beta = .08, p = .002, 95\% \text{ CI } [.11, .49]$ ) and suicidal ideation ( $\beta = .06, p = .018, 95\% \text{ CI } [.003, .24]$ ) of the college students (Karatekin, 2018).

A study with 762 college students (76% female) with a mean age of 20.3 ( $SD = 2.5$ ) from an American University examined the relationship between expanded ACEs, stress, and different types of stress-related interventions (Karatekin & Ahluwalia, 2021). Expanded ACEs were assessed by a combination of the original ACEs questionnaire and the Juvenile Victimization Questionnaire, perceived stress was measured with the 10-item Perceived Stress Scale (PSS), general health was examined with the score of the General Health Scale of the 36-item short-form survey (SF-36), and to identify the types and preferences of interventions demographic form and college mental health websites with manipulated information about the promised results and the duration of the therapy, the medium of the therapy process, individual versus group therapy settings were used (Karatekin & Ahluwalia, 2021). The expanded ACEs Scale was used to be consistent and comparable with a previous study (Karatekin & Ahluwalia, 2021). Students with 0

to 2 ACEs were categorized as low ACEs group, and students with 3 or more ACEs were considered as high ACEs group based on a median split which originated in a previous study (Karatekin & Ahluwalia, 2021). It is stated that students with higher numbers of ACEs reported higher levels of perceived stress ( $M_{\text{higher ACEs}} = 20$ ,  $SD_{\text{higher ACEs}} = 6.3$ ;  $M_{\text{lower ACEs}} = 16$ ,  $SD_{\text{lower ACEs}} = 5.8$ ;  $t(665.18) = 8.75$ ,  $p < .001$ ,  $d = .65$  [0.5, 0.8]) and had lower scores of physical and mental health on the SF-36 General Health scale ( $M_{\text{higher ACEs}} = 63.8$ ,  $SD_{\text{higher ACEs}} = 18.4$ ;  $M_{\text{lower ACEs}} = 70.9$ ,  $SD_{\text{lower ACEs}} = 17.2$ ;  $t(683.64) = -5.42$ ,  $p < .001$ ,  $d = -.40$  [-0.55, -0.25]) (Karatekin & Ahluwalia, 2021). According to this study, students with higher levels of ACEs reached more to health-related interventions ( $M = 5$ ,  $SD = 4.3$ ) than low-ACE group students ( $M = 3.4$ ,  $SD = 4$ ;  $W = 90,857$ ,  $p < .001$ ) and their utilization of types of services had a wider range (Karatekin & Ahluwalia, 2021). High-ACEs group is reported as preferring to attend interventions for preventing negative outcomes than promoting positive ones (Karatekin & Ahluwalia, 2021).

In the study of Merians and colleagues (2019), latent class analysis (LCA) for ACEs were explored with 8,997 college students (68% females) with a median age of 21 years. To measure ACEs, poor mental and physical health, the Behavioral Risk Factor Surveillance System (BRFSS) survey was utilized (Merians et al., 2019). The 19-item alcohol consequences scale from the Core Alcohol and Drug Survey was also utilized for assessing alcohol use consequences (Merians et al., 2019). There were four classes of participants with ACEs which LCA results indicated: High ACEs, Moderate Risk of Non-Violent Household Dysfunction, Emotional and Physical Child Abuse, and Low ACEs (Merians et al., 2019). The most distinctive result was related with poorer mental health indicating a difference between high and low ACEs classes ( $ds = .91$  to  $.89$ )



(Merians et al., 2019). Additionally, there is a smaller yet significant difference between low ACEs class and Non-Violent Dysfunction class, and Emotional and Physical Child Abuse class in terms of poor mental health ( $ds = .51$  to  $.66$ ) (Merians et al., 2019). It is stated that results from the LCA approach is in line with existing results from cumulative risk approaches (Merians et al., 2019).

A two-wave study with 2,969 college students investigated the relationship between ACEs and health behaviors and psychological outcomes in adulthood (Windle et al., 2018). The measurement tool for ACEs was ten item ACE questionnaire from the Behavioral Risk Surveillance Survey, for depressive symptoms The Patient Health Questionnaire – 9 item (PHQ-9), for Attentional Deficit and Hyperactivity Disorder (ADHD) symptoms, The Adult ADHD Self-Report Scale Symptom Checklist used, and for tobacco, alcohol and marijuana use, and body mass index and obesity, four questions were added to demographic form (Windle et al., 2018). Students with higher ACEs scores were stated as showing higher levels of substance use such as cigarette,  $F(7, 2095) = 6.98, p < .001, R^2 = .025$ , alcohol,  $F(7, 2095) = 4.61, p < .001, R^2 = .026$ , and marijuana,  $F(7, 2095) = 2.54, p < .001, R^2 = .012$ , and more ADHD symptoms,  $F(7, 2095) = 7.33, p < .001, R^2 = .043$ , and depressive symptoms,  $F(7, 2095) = 18.23, p < .001, R^2 = .06$  (Windle et al., 2018). Additionally, higher levels of ACEs predicted lower levels of vegetable and fruit consumption,  $F(7, 2095) = 1.92, p < .01, R^2 = .010$ , and less sleep hours,  $F(7, 2095) = 18.23, p < .001, R^2 = .014$ , and higher levels of Body Mass Index (BMI),  $F(7, 2095) = 2.92, p < .001, R^2 = .081$  (Windle et al., 2018). The relationship between the ACEs and depression for predicting the health behaviors was controlled and only the vegetable and fruit consumption became not significant due to this change (Windle et al., 2018). As a result, it was stated that the other health

behaviors and ADHD symptoms were not affected by depressive symptoms related with ACEs (Windle et al., 2018). In comparison to a larger adult sample reporting higher levels of and sexual abuse ( $M_{\text{adult}} = 20.7$ ,  $M_{\text{student}} = 7.7$ ), college students reported more emotional abuse ( $M_{\text{adult}} = 10.6$ ,  $M_{\text{student}} = 18.7$ ) and parental problems of divorce and separation ( $M_{\text{adult}} = 23.3$ ,  $M_{\text{student}} = 33.4$ ) (Windle et al., 2018).

Another study aimed to explore the associations between childhood emotional abuse and borderline personality disorder (BPD) with 243 undergraduate students (85.6% female) with a mean age of 20.10 years ( $SD = 4.74$ ) (Kuo et al., 2015). The measurement tool used for assessing childhood emotional abuse was The Childhood Trauma Questionnaire – Short Form (CTQ-SF), The Borderline Symptom List-23 (BSL-23) for borderline personality disorder, and The Difficulties in Emotion Regulation Scale (DERS) for emotion regulation (Kuo et al., 2015). Results indicated that more frequent childhood emotional abuse is associated with more severe features of adult borderline personality disorder (BPD) ( $\beta = .36$ ,  $t(239) = 6.35$ ,  $p < .001$ ). (Kuo et al., 2015). There is also an indirect relationship through emotion regulation difficulties between emotional abuse and BPD features (emotional abuse and difficulties with emotion regulation, standardized  $\beta = .52$ ,  $p < .001$ ; difficulties with emotion regulation and BPD feature severity, standardized  $\beta = .78$ ,  $p < .001$ ) (Kuo et al., 2015).

The study of Gündüz and colleagues (2019) explored the differences in adult depression, anxiety, ruminations, and metacognitions between individuals with and without ACEs (Gündüz et al., 2019). The study was conducted with 275 college students (164 females) from Turkey with a mean age of 20.42 ( $SD = 1.64$ ) (Gündüz et al., 2019). The study used Adverse Childhood Experiences Scale Turkish Form (ACE-TR) for

measuring ACEs, Metacognition Questionnaire-30 (MCQ- 30) for evaluation of metacognitive beliefs and processes, Ruminative Thought Style Questionnaire (RTSQ) for evaluating the individuals' tendency to rumination, Positive-Negative Beliefs about Rumination Scale for measuring positive and negative metacognitions attached to rumination, Penn State Worry Scale for examining individuals' levels of prevalence, severity, and controllability of generalized and sustained anxiety, Generalized Anxiety Disorder (GAD-7) for evaluating anxiety disorder, Beck Depression Inventory for assessing physical, cognitive, emotional and motivational depressive symptoms (Gündüz et al., 2019). Results reported that individuals with ACEs show higher levels of perceived uncontrollable worry,  $U(N_{\text{without ACEs}} = 143, N_{\text{with ACEs}} = 76), z = -2.981, p < .001$  and rumination ( $M_{\text{without ACEs}} = 53.18, SD_{\text{without ACEs}} = 23.40; M_{\text{with ACEs}} = 54.33, SD_{\text{with ACEs}} = 19.05$ ) than individuals without ACEs. It is stated that these individuals with ACEs also have more beliefs about threat and danger being uncontrollable, and they lack cognitive confidence (Gündüz et al., 2019). Moreover, individuals with ACEs reported significantly higher depressive symptoms,  $U(N_{\text{without ACEs}} = 143, N_{\text{with ACEs}} = 76), z = -7.826, p < .001$  and anxiety levels,  $U(N_{\text{without ACEs}} = 143, N_{\text{with ACEs}} = 76), z = -5.213, p < .001$  (Gündüz et al., 2019).

The study of Odacı and Çelik (2020) with 851 college students (477 females, 374 males) from Turkey investigated the relationship between traumatic childhood experiences and health-risk behaviors and aggression of college students. To measure traumatic childhood experiences The Childhood Trauma Questionnaire was used (Odacı & Çelik, 2020). The Adolescent Risk-Taking Scale was utilized for measuring risk-taking behaviors in adults (Odacı & Çelik, 2020). Aggression was measured by The Aggression Questionnaire (Odacı & Çelik, 2020). The findings suggested that traumatic

childhood experiences of emotional neglect and maltreatment ( $r = .23, p < .01$ ), physical ( $r = .25, p < .01$ ) and sexual ( $r = .24, p < .01$ ) maltreatment is related with health-risk behaviors of adults (Odacı & Çelik, 2020). Results indicated that traumatic childhood experiences including emotional neglect ( $r = .21, p < .01$ ), physical ( $r = .27, p < .01$ ) and sexual abuse ( $r = .16, p < .01$ ) are reported as associated with aggression in adulthood (Odacı & Çelik, 2020). Additionally, it is noted in the study that physical maltreatment ( $t = -4.14, p < .05$ ) and emotional maltreatment and neglect ( $t = -2.97, p < .05$ ) varied significantly between males and females (Odacı & Çelik, 2020). In contrast to previous studies, there is no significant difference between males and females in being exposed to sexual abuse (Odacı & Çelik, 2020).

Pasha-Zaidi and colleagues (2020) conducted a study to investigate the relationship between ACEs and resilience with 124 undergraduate students (83 females, 41 males) ages between 18 to 25 years from a university in Turkey. ACEs were measured with Adverse Childhood Experiences International Questionnaire (ACE-IQ), persistence for long term goals was assessed with the score from The Grit Scale, and resilience was measured with the Brief Resilience Scale (Pasha-Zaidi et al., 2020). The relationship between adverse childhood experiences scores and resilience measures for college students in Turkey and how this relationship changes according to gender were studied (Pasha-Zaidi et al., 2020). It was stated that overall ACEs scores did not have a significant relationship with resilience measure, however, particular types of ACEs scores were related with specific resilience measures (Pasha-Zaidi et al., 2020). Parental abuse ( $r = -.24, p < .01$ ) and bullying ( $r = -.21, p < .05$ ) had a significant negative relationship with grit as a part of academic resilience, and scores of family environment related ACEs ( $r = -.21, p < .05$ ) were stated as significantly negatively related with self-

regulation as a measure for resilience (Pasha-Zaidi et al., 2020). For the gender differences, in comparison to males, females were stated as experiencing more effects of ACEs on their self-regulation ( $\beta = -1.12, p = .01, 95\% \text{ CI } [-.23, -.02]$ ) and self-efficacy ( $\beta = -.73, p = .04, 95\% \text{ CI } [-1.44, -.03]$ ) measures of resilience (Pasha-Zaidi et al., 2020). Additionally, males ( $M = 3.42, SD = .68$ ) were stated as reported higher general resilience scores on the Brief Resilience Scale than females ( $M = 3.04, SD = .76, F(1, 122) = 7.21, \text{ partial eta squared} = .06$  (Pasha-Zaidi et al., 2020).

It is stated that 75.8% of the college students reported at least one childhood adversity which can be interpreted as having ACEs is a common negative experience for college students (Husky et al., 2022). College students are a unique group with stressful life situations such as academic distress, economic issues, and social isolation (Hartley, 2010; Jones et al., 2018; Peltz et al., 2021; Richardson et al., 2017).

### 2.3 Benevolent childhood experiences (BCEs)

In the field of developmental psychopathology and resilience research, there are two types of resilience factors which are promotive and protective (Masten, 2001, 2018; Masten & Barnes, 2018; Sameroff, 2000). Promotive factors serve as a main effect for positive outcomes and described as assets of the individual regardless of the level of risk (Masten, 2018; Sameroff, 2000). Protective factors only become effective when the level of the risk is high and they work as moderators for the outcomes (Masten, 2018; Sameroff, 2000). According to this distinction, Benevolent Childhood Experiences (BCEs) are promotive factors that decrease the psychopathology apart from the level of ACEs (Narayan et al., 2018). BCEs include positive self and other relationship

experiences during childhood focusing on the concepts of safety, support, security, and overall positive qualities of life (Narayan et al., 2018).

ACEs and BCEs are the balancing factors for each other, and they co-exist and co-occur in the individual's life (Narayan et al., 2020). Acknowledging that the BCEs and ACEs are intertwined in the individuals' lives can provide understanding for the underlying mechanisms of resilience (J. S. Merrick & Narayan, 2020). Resilience is defined as "the capacity of a dynamic system, to adapt successfully to disturbances that threaten system function, viability, or development." (Masten, 2014, *p.* 10). The differences between the outcomes of the individuals' following childhood adversity can be explained by the help of positive childhood experiences (J. S. Merrick & Narayan, 2020).

A study with 50 homeless parents/primary caregivers (42 birth mothers, 5 birth fathers, 1 stepfather, and 2 grandmothers) with a mean age of 32.50 years ( $SD = 9.29$ , ranging from 21 to 62 years) (J. S. Merrick et al., 2019). ACEs were measured with ACEs scale, psychological distress was assessed with Kessler Scale for Psychological Distress (K-6), parenting stress was measured with the Parental Stress Scale, and sociodemographic risk was measured with 10-item sociodemographic risk composite (J. S. Merrick et al., 2019). Results indicated that ACEs and BCEs are independent from each other by being only modestly inversely correlated with each other,  $r = -.33$ ,  $p < .05$  (J. S. Merrick et al., 2019). Additionally, results supported that the BCEs are related with lower instances of psychological distress during adulthood,  $r = -.34$ ,  $p < .05$  (J. S. Merrick et al., 2019).

A study with 101 pregnant women (Mean age = 29.10 years,  $SD = 6.56$ , ranging from 18 to 44) explored the relationship between timing and type of the ACEs and

BCEs, and pregnancy related results (J. S. Merrick et al., 2020). BCEs scale was used for measuring BCEs, ACEs Scale for ACEs, the Edinburgh Postnatal Depression Scale (EPDS) for prenatal depression symptoms, the PTSD Checklist for the DSM-5 (PCL-5) for prenatal PTSD symptoms, and a 10-item questionnaire for prenatal stressful life events (J. S. Merrick et al., 2020). Results suggested that low levels of income indicated that rather than the timing of the experiences, the type of the experience whether it is maltreatment or family dysfunction, or benevolent type is more important in terms of the psychopathology outcomes (J. S. Merrick et al., 2020).

Another study with 341 adult participants (81.5% female) with a mean age of 24.7 ( $SD = 7.05$ ) explored the relationship between BCEs and adult personality disorders (Gunay-Oge et al., 2020a). The negative association between remembered benevolent childhood experiences and adult psychopathology in terms of personality disorders symptoms of antisocial, avoidant, borderline, dependent, obsessive-compulsive, paranoid, passive-aggressive, sadistic, and self-defeating subtypes are low to moderate ( $r$  ranging from  $-.19$  to  $-.29$ ,  $p < .001$ ) regardless of the number of ACEs (Gunay-Oge et al., 2020a). The negative relationship between BCEs and the depressive, schizoid and schizotypal personality disorder symptoms were stronger ( $r$  ranging from  $-.31$  to  $-.32$ ,  $p < .001$ ) (Gunay-Oge et al., 2020a). It was claimed that BCEs can be a protective factor for adult personality disorders in the presence of ACEs (Gunay-Oge et al., 2020a).

In a study which uses the representative 2015 Wisconsin Behavioral Risk Factor Survey (WI BRFS) sample consisting of 6,188 adult participants (50.7% females), relationships between positive childhood experiences and adult depression and/or poor mental health (D/PMH) and adult-reported social and emotional support (ARSES) at all levels of childhood adversity were investigated (Bethell et al., 2019). A 7-item

questionnaire was used for measuring BCEs, ACEs survey for ACEs, a single item for adult social and emotional support, and two items for depression and poor mental health (Bethell et al., 2019). According to the results of this study, highest and lowest levels of reported BCEs are associated with the reported ARSES with the odds of 3.53 times (95% CI [2.60, 4.80]) (Bethell et al., 2019). A contradiction with the literature was that results indicated that there are not statistically significant associations between BCEs and D/PMH for the individuals who reported zero ACEs (Bethell et al., 2019).

Another study with 101 pregnant women (Mean age = 29.10 years,  $SD = 6.56$ , ranging from 18 to 44) investigated the relationship between BCEs and adult psychopathology and stress (Narayan et al., 2018). BCEs scale was used for measuring BCEs, ACEs Scale for ACEs, the Edinburgh Postnatal Depression Scale (EPDS) for prenatal depression symptoms, the PTSD Checklist for the DSM-5 (PCL-5) for prenatal PTSD symptoms, and a 10-item questionnaire for prenatal stressful life events (Narayan et al., 2018). Results stated that women with more BCEs have lower levels of PTSD ( $r = -.37, p < .01$ ) and prenatal depression symptoms ( $r = -.24, p < .05$ ), and they reported lower levels of stressful life events (SLEs;  $r = -.37, p < .01$ ) (Narayan et al., 2018). The cluster analysis showed three groups of women which are “High BCEs”, “High ACEs”, and “High Both” (Narayan et al., 2018). Women in the “High BCEs” cluster are stated as having the lowest levels of stress symptoms and psychopathology regardless of the level of ACEs (Narayan et al., 2018). It was claimed that BCEs can be interpreted as a promotive factor for functioning of the pregnant women, meaning that BCEs are related with positive outcomes regardless of the level of risk (Narayan et al., 2018). Results also indicated that lower levels of BCEs can be interpreted as another risk factor or an indicator for risk (Narayan et al., 2018).



A study with 246 adults aged between 19 to 57 ( $M = 34.6$  years) investigated the relationships between ACEs, BCEs, and adult health outcomes under the categories of physical health and cognitive, mental, and social health (Crandall et al., 2019). The measurement tools used for physical health outcomes were Body Mass Index (BMI), The Fruits and Vegetables Checklist, and adapted questions from the 2011 Behavioral Risk Factor Surveillance System Survey (BRFSS); Learning, Executive, and Attention Functioning (LEAF) scale, Levenson IPC Scale, the 10-item Perceived Stress Scale (PSS), the 9-item Montgomery Åsberg Depression Rating Scale (MADRS), Gratitude Questionnaire-6 Item Form (GQ-6), Heartland Forgiveness Scale (HFS), Adult Filial Closeness Scale (AFCS) for cognitive, mental and social health outcomes; 11-item ACE module of the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System Survey (CDC-BRFSS) for ACEs, and the 10-item Benevolent Childhood Experiences Scale for BCEs (Crandall et al., 2019). Results indicated that after controlling for age, gender, and ACEs scores, BCEs are related with lower levels of depression ( $b = -.07, p < .001$ ), stress ( $b = -.12, p < .001$ ), and sleep problems ( $b = -.23, p < .05$ ) and higher levels of executive functioning ( $b = .05, p < .01$ ), familial closeness ( $b = .10, p < .001$ ), forgiveness ( $b = .19, p < .001$ ), locus of control ( $b = .18, p < .001$ ), and daily fruit and vegetable consumption ( $b = .11, p < .05$ ) (Crandall et al., 2019). ACEs were stated as significantly related with sleep problems ( $b = .22, p < .05$ ), having smoked daily ( $b = 1.13, p < .05$ ), executive functioning ( $b = -.06, p < .001$ ), locus of control ( $b = -.07, p < .001$ ), stress ( $b = .10, p < .001$ ), depression ( $b = .07, p < .001$ ), gratitude ( $b = -.09, p < .01$ ), forgiveness ( $b = -.11, p < .001$ ), and familial closeness ( $b = -.05, p < .01$ ). However, after controlling for age, gender, and BCEs scores, only relationship between having smoked daily ( $b = 1.18, p < .01$ ), executive functioning ( $b =$

-.05,  $p < .01$ ), stress ( $b = .05$ ,  $p < .05$ ), and depression ( $b = .05$ ,  $p < .001$ ) and ACEs were stated as significant (Crandall et al., 2019). It was claimed that BCEs have positive effects on adult health regardless of the level of ACEs (Crandall et al., 2019).

A study used the data of 7,079 participants (51.9% female) from the 2016 South Carolina Behavioral Risk Factor Surveillance System (SC BRFSS) to investigate the relationship between ACEs, safe, nurturing, and caring relationships, and adult mental and physical health outcomes (Crouch et al., 2019). Nearly one-fifth (18.1%) of the participants reported four or more ACEs and 96.6% of them reported having a nurturing, stable, and safe relationship while growing up (Crouch et al., 2019). The analyses were adjusted for sex, age, educational attainment, race/ethnicity, and income (Crouch et al., 2019). It was stated that participants with four or more ACEs had higher possibilities of reporting higher levels of problems with overall health (adjusted OR 2.08; 95% CI [2.06, 2.09]) (Crouch et al., 2019). The possibilities of individuals with four or more ACEs reporting poor overall health were lower if the individuals had a safe, nurturing, and stable relationship with an adult while growing up (adjusted OR .61; 95% CI [.60, .62]) (Crouch et al., 2019). Additionally, participants who grew up with adults that made them feel safe and cared for more likely to report less mental health problems than frequent mental distress (81.1% versus 67.2%,  $p < .0001$ ) and more good health than health problems (81.3% versus 70.0%,  $p < .001$ ) (Crouch et al., 2019).

In 2005, Lieberman and colleagues (2015) suggested a positive version for Ghosts in the Nursery and named it Angels in the Nursery. Like ghost memories, Angels in the Nursery is an earlier and particular version of the BCEs. Angels in the Nursery was defined as childhood experiences in which children are cared, safe, loved unconditionally, accepted, and with a sense of worth (Lieberman et al., 2005). These

memories have the features of guardian angels with a sense of indisputable goodness and love (Lieberman et al., 2005). Parents with angel memories unknowingly bring their positive experiences to the nurseries of their own children and it becomes a cycle of benevolent childhood experiences and parental influences (Lieberman et al., 2005).

Parents with angel memories can benefit from their past supportive and benign relationships to decrease the effects of ghost memories and identify themselves with the protector from their childhood (Lieberman et al., 2005). The differences between parenting approaches change the children's psychological adjustment (Lieberman et al., 2005). Interacting with loving parents can help breaking the cycle of maltreatment in later generations (Lieberman et al., 2005).

If angel memories or benevolent childhood experiences can be stated as antecedents of protective factors for adult lives, they can be utilized to promote resilience or diminish intergenerational transmission of trauma (Narayan et al., 2020).

When young children are exposed to domestic violence, they try to sustain a sense of trust and being protected (Lieberman, 2007). According to the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood: Revised Edition (DC:0-3R; Zero to Three, 2005), although their reactions may change according to temperament and developmental stage, children in the first five years develop symptoms under three clusters which are "re-experiencing of the traumatic event", "numbing of responsiveness", and "increased arousal" (Lieberman, 2007). When the violence takes place at home or the parents are the attackers, children not only perceive their parents as the source of threat but also, they lose their reliable protector (Lieberman, 2007). Children's identification with the aggressor parent comes from the need to be not victimized by the parent and self-protection (Lieberman, 2007).

Angel memories are stated as protective factors by moderating the relationship between childhood maltreatment and adult PTSD symptoms (Narayan et al., 2017). Also, more ghost memories indicated the existence of more diverse and extensive childhood maltreatment (Narayan et al., 2017).

Angel and ghost memories co-exist in parents and strive for supremacy over the other (Lieberman et al., 2005). In the course of therapy for the treatment of trauma, the therapist supports the client's developmental progress, and positive emotional relationships with the self, and the environment (Lieberman, Compton, Van Horn, & Ghosh Ippen, 2003; (Lieberman et al., 2005). Therapeutic process has the responsibility of not only exploring traumatic events from the past but also exploring and integrating benevolent experiences to support self-worth (Lieberman et al., 2005). Reaching positive childhood memories can be blocked by the pain of later adverse childhood experiences and the loss of goodness. While it can be painful, it may be beneficial to evoke good childhood memories by parenting a young child with the intention of healing in a therapeutic setting (Lieberman et al., 2005).

BCEs are a relatively new concept in the mental health research. Their importance and roles in the web of early experiences can be interpreted with the preliminary research (Bethell et al., 2019; Crandall et al., 2019; Crouch et al., 2019; Narayan et al., 2018). Higher numbers of BCEs were related to better physical and mental health outcomes. Further research for understanding the promotive or protective aspects of the BCEs is needed.

## 2.4 Emotion regulation

Emotion regulation (ER) has been defined by different theoretical approaches. The process, the aim, or the mechanism of the emotion regulation affect the definition of the concept. The most frequently used approaches for defining emotion regulation are process model and goal model.

The process model of emotion regulation is defined as “the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (Gross, 1998, p. 275).

The goal model defined emotion regulation as “intrinsic and extrinsic processes of monitoring, evaluating, and modifying intensive and temporal aspects of emotional reactions to accomplish the individual’s goals” (Thompson, 1994, p. 27-28). These internal processes such as physiological reactions or cognitive efforts, and external processes such as facial expressions or behaviors related with emotions are not separately working parts of regulatory process, they work together to manage intensity, duration, and expression of emotions (Morelen et al., 2016). These aspects of the psychological processes are the ones that can lead to psychopathology, hence management and monitoring of them are at the core of adaptive functioning of the individual (Lineman, Bohus, & Lynch, 2007).

Although these models of ER have common aspects of regulating emotions’ duration, severity, frequency and intensity, the goal model focuses on the results of the efforts of regulation, whereas the process model focuses on the experience of the emotion. According to process model of ER, there are two emotion regulation strategies for down-regulation: reappraisal which is an adaptive strategy and suppression which is maladaptive (Gross, 2002). Reappraisal changes the individuals’ interpretation of the

event and lowers the behavioral expression and emotional experience without effecting the memory (Gross, 2002). Suppression is the strategy to inhibit the expression of inner experience by decreasing the behavioral expression but not emotional experience (Gross, 2002). This strategy damages the memory (Gross, 2002).

If emotion regulation skills cannot be developed appropriately in the infancy and early childhood, it may lead socioemotional and behavioral problems, academic struggles, and psychopathology in later life (Thomas et al., 2017). Better emotion regulation in childhood is associated with a wide range of positive outcomes, including decreased externalizing and internalizing symptoms, and improved behavioral functioning (Thomson, Riosa, & Weiss, 2015). On the other hand, emotion dysregulation is related with problems of ER and may cause difficulties for the individual to achieve her goals or confirm situational demands of the environment (Cicchetti et al., 2010).

The developmental process of ER does not happen in discrete stages nor is it intrapersonal (Stifter & Augustine, 2019). However, the development of ER is investigated across the developmental stages of the individual. Namely, three stages are considered according to changes in ER: Infancy and toddlerhood, childhood and adolescence, and adulthood and aging (Stifter & Augustine, 2019). During lifespan, the development of ER is a process of gradual substitution of external to internal regulation (Rothbart et al., 2011; J. C. Thomas et al., 2017). The general developmental stages of ER are caregiver-dependent regulation, caregiver-infant co-regulation, independent self-regulation with caregiver guidance, and internalization of emotion regulation (Thomas et al., 2017).

Firstly, especially in infancy and toddlerhood, the development of ER requires a dyadic process which involves both internal and external components occurring in parent-child relationships. Because infants, children, and sometimes adolescents do not have the maturity or the necessary cognitive development, they often rely on the external sources such as parents to regulate their emotions (Morris, Criss, Silk, & Houlberg, 2017). ER abilities depend on intrinsic and extrinsic factors. Intrinsic factors are generally infant characteristics of temperament, individual differences in reactivity and regulation of affect (Thomas et al., 2017). Extrinsic factors are caregiver approach and attitudes, most importantly maternal sensitivity (Thomas et al., 2017). Maternal sensitivity can be defined as the mothers' sensitive responses to the infant cues of distress (J. C. Thomas et al., 2017). Maternal sensitivity is a moderator between the infant temperament and emotion regulation strategies in later life (J. C. Thomas et al., 2017).

In the first months of life the infant uses the physiological and biological processes of reflexes to soothe herself/himself and regulate her /his emotions to reach the homeostatic state. By the middle childhood and adolescence, the ER process becomes more self-conscious and intentional (Oschner & Gross, 2004). This shift of regulatory efforts between infancy to adolescence is a result of emotional interactions between children and their caregivers (Sroufe, 1996; as cited in Cole & Hollenstein, 2018). The sensitive and positive interactions with caregivers, and successful caregiver intervention in reducing emotional distress help children experience arousal regulation, and learn particular strategies to regulate emotions (Sroufe, 1996; as cited in Cole & Hollenstein, 2018). It is important that these parental involvements occur in the infancy

and early childhood, because in these periods, the most rapid learning opportunities take place (Cole & Hollenstein, 2018).

Through emerging adulthood, ER strategies tend to change into adaptive or cognitive ER (Zimmermann & Iwanski, 2014). Emerging adulthood is a life period that includes many uncertainties brought by inter- and intrapersonal changes (Arnett, 2000). Development of ER during this period may have enduring effects into adulthood (Zimmermann & Iwanski, 2014).

A study investigated the mediational role of ER between ACEs and three outcomes of PTSD symptoms, depression, and poor physical health among women with ACEs (Cloitre et al., 2019). Participants were 290 women with a mean age of 42.5 years ( $SD = 11.9$ ) and diverse ethnicity (Cloitre et al., 2019). Emotion regulation was measured with the Difficulties in Emotional Regulation Scale (DERS), PTSD with the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5), depression with the Brief Symptom Inventory Depression subscale (BSI-D) and physical health with a shortened version of Medical Outcomes Study Short Form (SF-8) (Cloitre et al., 2019). Results indicated that ER measured on DERS scores mediated the relationships between ACEs and the three health outcomes of PTSD ( $B = .10, p < .001$ ), depression ( $B = .16, p < .001$ ), and physical health ( $B = .07, p = .002$ ) (Cloitre et al., 2019).

Another study examined the mediating role of ER strategies between ACEs and later psychopathology and suicidal behavior (McLafferty et al., 2020). The participants were 739 first-year undergraduate students (462 females, 274 males) with a mean age of 20.69 ( $SD = 5.31$ ) (McLafferty et al., 2020). The measures used in the study were WHO Composite International Diagnostic Interview 3.0 for mental health problems, self-harm and suicidal behavior, profile analysis for risk classes for early childhood experiences,



and Emotion Regulation Questionnaire for ER (McLafferty et al., 2020). Results of the mediational analysis showed that adaptive emotion regulation strategies related with lower levels of psychopathology following adverse childhood experiences (McLafferty et al., 2020). The use of suppression strategy is found significantly related with all psychological problems measured, with negative estimated standard error values, Major Depressive Episode ( $S.E. = -2.487$ ), Generalized Anxiety Disorder ( $S.E. = -2.457$ ), suicidality ( $S.E. = -2.396$ ), self-harm ( $S.E. = -2.013$ ) (McLafferty et al., 2020).

The study of Espeleta and colleagues (2018) investigated the associations among ACEs, ER, impulsivity, and health-risk behaviors with ER and impulsivity being the potential mediators (Espeleta et al., 2018). Participants were 668 college students (83% female) whose ages ranged between 18 to 54 ( $M = 20$ ,  $SD = 3.1$ ) (Espeleta et al., 2018). The measures used in the study were The Adverse Childhood Experiences Questionnaire - Short Form (ACES-SF) for ACEs, Difficulties in Emotion Regulation Scale (DERS) for emotion dysregulation, The Short UPPS-P Impulsive Behavior Scales (SUPPS-P) for impulsivity, Maladaptive Behaviors Scale (MBS) for health-risk behaviors, the Brief Young Adult Alcohol Consequences Questionnaire (B-YAACQ) for alcohol-related consequences, and The Cognitive Appraisal of Risky Events Questionnaire (CARE) for risky sexual behaviors (Espeleta et al., 2018). Results indicated that the direct relationship between ACEs and general risk behaviors was not significant (Espeleta et al., 2018). However, ACEs significantly predicted the emotion dysregulation of the individuals ( $M = 2.31$ ,  $t = 3.86$ ,  $p < .001$ , 95% CI [1.14, 3.48]) (Espeleta et al., 2018). Additionally, emotion dysregulation mediated the relationship between ACEs and general risk behaviors (bootstrapped CI [.53, 9.32] (Espeleta et al., 2018). In detail, ACEs significantly predicted the alcohol-related consequences (bootstrapped CI [.03,

.13]) and risky-sexual behaviors (bootstrapped CI [.01, .05]) through emotion dysregulation (Espeleta et al., 2018).

Emotion regulation has an important role in typical development throughout the life (Zimmermann & Iwanski, 2014). It is related with PTSD symptoms, depression, anxiety, risky behaviors, and poor physical health (Cloitre et al., 2019; Espeleta et al., 2018; McLafferty et al., 2020). Including ER strategies to the psychotherapy process is stated as a supportive and significant addition to the mental health interventions (Berking et al., 2008).

## 2.5 Shame

Shame is firstly discussed in psychoanalytical studies, starting from the earlier work of Freud (1905; as cited in Price Tangney & Dearing, 2004). It was briefly defined as “a reaction formation against sexually exhibitionistic impulses” (Freud 1905; as cited in Price Tangney & Dearing, 2004). In his later work, he abandoned the construct of shame and focused on the concept of guilt as a feeling experienced in terms of superego conflicts (Price Tangney & Dearing, 2004). Then, post-Freudian theorists explained shame as the reactions to the conflict between the ego and ego-ideal which is basically an idealized moral self (Price Tangney & Dearing, 2004). Later, in the studies of self-psychology, shame is thought as a collaborating factor for some psychological disorders (Price Tangney & Dearing, 2004).

The causal attributions theory of Abramson and colleagues (1978) identified three dimensions which are: locus (internal or external), stability (stable or unstable), globality (global or specific). Shame can be explained in these dimensions of attributions as internal, stable, and global (Price Tangney & Dearing, 2004).

Andrews and colleagues (2002) suggested a multidimensional model of shame to explain the broad extent of effects of shame on the self: characterological shame; behavioral shame; bodily shame. Characterological shame includes personal habits, skills, manners, and whole personality of the individual (Andrews et al., 2002). Behavioral shame is failed, unsuccessful or wrong actions especially in interpersonal or competitive contexts (Andrews et al., 2002). Finally, bodily shame is being unconfident or ashamed by the physical appearance of the self (Andrews et al., 2002).

From a developmental standpoint, Erikson's theoretical framework (1950) on psychosocial development includes 8 developmental stages: trust vs. mistrust, autonomy vs. shame and doubt, initiative vs. guilt, industry vs. inferiority, identity vs. identity confusion, intimacy vs. isolation, generativity vs. stagnation, and integrity vs. despair (Graves & Larkin, 2006). The second developmental stage as stated above is autonomy vs. shame and doubt which occurs between 18 months and 36 months of the life of the individual (Graves & Larkin, 2006). In this stage, the toddler practices with the social world by controlling his or her sphincter muscles resulting with two responses: holding on and letting go (Berzoff et al., 2022). This reactions of holding on and letting go should not be related with only feces; the object may be toys, food, or any other object (Berzoff et al., 2022). In terms of Freud's psychosexual development, it is the anal stage which explains "the baby pleases himself both aggressively and sexually by the retention and the expulsion of the feces" (Berzoff et al., 2022).

If the toddler feels excessively controlled or without any kind of control, she or he may experience extreme shame and doubt (Berzoff et al., 2022). On the contrary, a toddler experiencing autonomy in terms of controlling his or her sphincter, exploration

or other actions may develop in the way of confidence and pride and add these to his or her ego identity (Berzoff et al., 2022).

Holding on and letting go modalities can be explained in social and parental contexts (Graves & Larkin, 2006). This stage involves a toddler's beginning of exploration the outer world and move away from his or her primary caregiver, mostly mother, with the help of the maturation of his or her muscles (Graves & Larkin, 2006). If the caregiver holds the toddler too close and restricts him or her, this may relate with the experience of shame and doubt (Graves & Larkin, 2006). Moreover, if the caregiver overly lets the toddler go to the point of neglect, it may bring experiences of shame (Graves & Larkin, 2006). Both scenarios are destructive for the toddlers' autonomy development (Graves & Larkin, 2006). Parents need to balance their reactions towards the need of toddlers' exploration which should be permissive within the boundaries of physical safety and social mores (Graves & Larkin, 2006).

Although there were many attempts to define the feeling of shame, the most accepted definition of it is “an intense negative emotion represented by the perception of global self-devaluation” (Price Tangney & Dearing, 2004; Velotti et al., 2017, p. 171). Another definition of the shame provided by a study conducted with 215 women is “an intensely painful feeling or experience of believing we are flawed and therefore unworthy of acceptance and belonging” (Brown, 2006, p. 45). Lewis (1971) suggested that the main distinction of shame is the emphasis of the “self” rather than the “behavior” (Brown, 2006; Price Tangney & Dearing, 2004).

Because shame is an unpleasant and threatening feeling, individuals try to find strategies to cope with shame (Nathanson, 1994). There are four fundamental strategies for shame coping (Nathanson, 1994). Two of them are internalized strategies which are

withdrawal and attack self, and the others are externalized namely avoidance and attack others (Nathanson, 1994). Individuals who use attack self-strategy generally tries to continue their interpersonal relationships, whereas withdrawal results in pulling away from others to decrease the discomfort of shame (Elison, Lennon, et al., 2006). Individuals using avoidance strategy typically distracts themselves to reduce the conscious shame experience (Elison, Lennon, et al., 2006). Attack other strategy couples with anger directed to others, generally the people related with shame experience (Elison, Lennon, et al., 2006). Individuals' frequent utilization of these shame coping strategies may relate with their level of functioning (Mahtani et al., 2018). While using these strategies frequently to cope with shame means a maladaptive shame coping style, adaptive shame coping style was defined as reflecting on possible improvements on behavior and attitude, finding social support, and changing the environment for desired outcomes (Elison, Lennon, et al., 2006).

A study with 280 students from private ( $N = 212$ ) and public community ( $N = 68$ ) colleges in the U.S examined the relationships between experiences of psychological maltreatment, symptoms of depression, guilt, and shame (Webb et al., 2007). The age range of the participants was 18 to 44 with a mean of 20.9 ( $SD = 4.6$ ) (Webb et al., 2007). The Test of Self-Conscious Affect (TOSCA) was used to assess the level of guilt and shame of the participants, Center for Epidemiological Studies – Depression Scale (CESD) was used for measuring the symptoms of depression, Psychological Maltreatment Inventory (PMI) for assessing the history of psychological maltreatment in childhood (Webb et al., 2007). Results indicated that shame is positively correlated with the symptoms of depression measured with CESD both before ( $r = .46, p < .001$ ) and after ( $r = .42, p < .001$ ) controlled for guilt (Webb et al., 2007). Findings showed that

shame has significant positive relationships with psychological maltreatment measured with the three factors of PMI, namely hostile rejection, isolation, and emotional neglect before (respectively,  $r = .22, p < .001$ ;  $r = .24, p < .001$ ;  $r = .18, p < .001$ ) and after (respectively,  $r = .24, p < .001$ ;  $r = .26, p < .001$ ;  $r = .19, p < .001$ ) controlling for guilt (Webb et al., 2007). However, guilt was not found to be significantly related with the symptoms of depression measured with CESD and psychological maltreatment assessed with three factors of PMI which are hostile rejection, isolation, and emotional neglect after controlled for shame (Webb et al., 2007). Findings suggested that shame is related with childhood psychological maltreatment and depressive symptoms consistently (Webb et al., 2007).

Another study with 228 undergraduate students (182 females, 46 males) between the ages of 16 to 51 ( $M = 20.99$ ;  $SD = 6.37$ ) investigated the role of individual differences in tendency to shame-proneness on the two strategies of emotion regulation which are perspective taking and positive reappraisal (Krishnamoorthy et al., 2021). The participants of the experimental study were assigned in eight different groups of experimental conditions which were constituted of two phases, two versions of perspective taking (first-person and third-person perspective), and two versions of reappraisal styles (positive reappraisal, no positive reappraisal) (Krishnamoorthy et al., 2021). Shame-proneness was measured with The Test of Self-Conscious Affect (TOSCA; Tangney, et al., 1989), and affective states were measured with visual analogue scales (VAS) (Krishnamoorthy et al., 2021). Results indicated that there was a main effect for Appraisal revealing that the positive appraisal groups ( $M = 2.56$ ,  $SD = .13$ ) reported lower levels of shame than no positive appraisal groups ( $M = 3.22$ ,  $SD = .13$ ),  $F(1, 203) = 11.73$ ,  $\eta^2 = .05$ ,  $p < .01$ ) (Krishnamoorthy et al., 2021). Another main

effect for shame-proneness was found significant indicating that high shame-proneness groups ( $M = 3.28$ ,  $SD = .14$ ) reported higher levels of shame than low shame-proneness groups ( $M = 2.50$ ,  $SD = .12$ ; Krishnamoorthy et al., 2021). It was stated that the phase of the study is found significant which indicated that shame ratings during the free recall (shame event) phase ( $M = 4.34$ ,  $SD = .16$ ) and the instructed recall phase ( $M = 4.12$ ,  $SD = .16$ ) were higher than during the two rest periods ( $M_{\text{Rest Period 1}} = 2.78$ ,  $SD = .12$ ;  $M_{\text{Rest Period 2}} = 2.94$ ,  $SD = .14$ ;  $p < .05$ ) (Krishnamoorthy et al., 2021). Participants reported higher shame ratings in the rest periods than ratings at baseline ( $M = 1.54$ ,  $SD = .08$ ) and during free recall (happy event) ( $M = 1.63$ ,  $SD = .08$ ,  $p < .05$ ) (Krishnamoorthy et al., 2021). It was stated that there was a four-way interaction between Phase  $\times$  Perspective  $\times$  Appraisal  $\times$  Shame-proneness variables (Krishnamoorthy et al., 2021). Results can be interpreted as higher levels of shame experience is related with being high shame-prone, perspective taking usage, without positive reappraisal (Krishnamoorthy et al., 2021). Lower levels of shame experiences are associated with perspective taking and positive reappraisal in high shame-prone group (Krishnamoorthy et al., 2021).

The study of Steindl and colleagues (2021) investigated the relationship between early shame and safeness memories which are substantial parts of ACEs and BCEs and later depressive symptoms and the safe affect which includes the recollections of warmth, safeness and being accepted in childhood of the individual. The study included 223 participants (155 females, 67 males) from a general population sample and the age range was 17 to 70 years ( $M = 29.75$ ,  $SD = 11.93$ ). The early shame memories were collected with a written memory, 22-item Traumatic Qualities of the Shame Memory Scale which was adapted from The Impact of Event Scale–Revised (IES-R), and 20-item Centrality of the Shame Memory measurement tool which was adapted from The

Centrality of Event Scale (CES; Steindl et al., 2021). Early memories of warmth and safeness were measured by The Early Memories of Warmth and Safeness Scale (EMWSS). Depressive symptoms were measured by The Depression, Anxiety and Stress Scale (DASS-21) that is shortened from the original 42 item version of Lovibond and Lovibond (1995) (Steindl et al., 2021). The safe positive affect at the adulthood was measured with The Types of Positive Affect Scale (ToPAS) which is an 18-item scale (Steindl et al., 2021). Results indicated that traumatic qualities and centrality of shame memories were positively correlated with adult depressive symptoms (respectively  $r = .40, p = .001$ ;  $r = .39, p = .001$ ) and negatively associated with safe positive affect (respectively  $r = -.23, p = .001$ ;  $r = -.28, p = .001$ ) (Steindl et al., 2021). Moreover, early memories of safeness and warmth were stated as negatively associated with the traumatic ( $r = -.30, p = .001$ ) and centrality ( $r = -.37, p = .001$ ) qualities of shame memories (Steindl et al., 2021).

Another study explored the associations between adverse childhood experiences, especially negative parental experiences, shame, and shame management (Sedighimornani et al., 2021). The participants of the study were 240 undergraduate students (194 females, 43 males, 3 undeclared) with a mean age of 27.79 ( $SD = 10.91$ ) (Sedighimornani et al., 2021). The adverse experiences with parents were measured with 25-item Parental Bonding Instrument (PBI; Sedighimornani et al., 2021). In order to measure shame coping strategies, The Compass of Shame Scale (CoSS; Elison, Lennon, et al., 2006) with 12 shame-inducing scenarios were used (Sedighimornani et al., 2021). For assessing the overall experiences of shame, 25-item the Experience of Shame Scale (ESS) was used (Sedighimornani et al., 2021). The relationship between negative parental experiences and shame was significant (for parental care  $r = -.30, p = .01$ )



indicating that lower parental care is associated with higher levels of shame (Sedighimornani et al., 2021). Parental care was found to be related with the attack self ( $r = -.23, p < .01$ ), withdrawal ( $r = -.30, p < .01$ ), and attack other strategies ( $r = -.28, p < .01$ ) (Sedighimornani et al., 2021). Additionally, attachment style and shame experiences related significantly (secure attachment,  $r = -.29, p < .01$ ; fearful attachment,  $r = .30, p < .01$ ; anxious attachment,  $r = .20, p < .01$ ) (Sedighimornani et al., 2021).

A study investigated the intrapersonal factors and related coping strategies (Prosek et al., 2022). Participants of the study were 416 college students with a mean age of 21.08 ( $SD = 3.11$ ) (Prosek et al., 2022). Coping strategies were assessed with the Coping Strategies Inventory-Short Form (CSI-SF), empathy was measured with Interpersonal Reactivity Index (IRI), shame was examined with The Test of Self-Conscious Affect-3 (TOSCA-3) (Prosek et al., 2022). Results showed that problem-focused coping strategy was associated with maladaptive factors such as shame ( $r = -.25, p < .01$ ) and personal distress ( $r = -.31, p < .01$ ) (Prosek et al., 2022).

Shame is a feeling of being flawed and worthless and people generally feel threatened by it (Brown, 2006; Nathanson, 1994; Price Tangney & Dearing, 2004). It is associated with children's developmental processes, especially with the exploration of autonomy (Berzoff et al., 2022). Higher levels of shame were found to be related to hostile rejection, isolation, emotional neglect, and adult depressive symptoms (Steindl et al., 2021; Webb et al., 2007).

In conclusion, adverse and benevolent childhood experiences are important factors for psychological adjustment during emerging adulthood. Maladaptive shame coping style can be a risk factor for heightened psychological distress during emerging adulthood (Mahtani et al., 2018). Additionally, emotion regulation strategies are

mediators of the relationship between adverse and benevolent childhood experiences and psychological distress of college students (Hanson et al., 2022). Exploring mental health of the college students is important because they are generally in the emerging adulthood period with heightened levels of stress in relation to academic distress, career plans, and romantic relationships (Arnett, 2000). During this period of life mental health problems increase (Karatekin, 2018; Kessler et al., 2005). This study presents a comprehensive and new perspective on childhood experiences and college mental health in addition to coping and regulation skills of emerging adults.

## CHAPTER 3

### METHODOLOGY

#### 3.1 Participants

The target population was college students from Turkey. The accessible population was college students studying at Istanbul. The targeted sample size was 200 to 400 college students in Istanbul. The targeted age group was 18 to 25 years which is the emerging adulthood stage of life. The sampling method was convenience sampling which is a nonprobability sampling technique. The sampling method was convenience sampling which is a nonprobability sampling technique.

As of 2021, Turkish Council of Higher Education (YÖK) stated that there are 4,676,657 students enrolled in 4-year undergraduate programs and 449,717 students enrolled in graduate programs in Turkey.

In the sample, there were 393 participants consisting of 304 females, 81 males, 6 individuals preferred not to share their gender, and 2 individuals stated their genders as other. Five participants did not answer the question about their level of education. Of all participants, 387 individuals were undergraduate, and one was Master's student. Three participants did not report their mother status and one did not report father status. Most participants stated that their mother ( $N = 386$ ) and father ( $N = 375$ ) were alive. Most participants stated that their parents were together and/or married ( $N = 325$ ). Most participants were from two public universities at Istanbul. Moreover, 74.8% of the participants were from Boğaziçi University.

In the study, genders were disproportionately distributed (304 females, 81 males). Because most participants were from Boğaziçi University, especially Faculty of

Education, the distribution of the students' gender was investigated. In 2020-2021 academic year, there were 1,609 female and 857 male undergraduate students at Boğaziçi University, Faculty of Education. The gender proportions of the study were consistent with the student distributions.

Table 1 shows frequencies for demographic information of gender, level of education, and parental information of the participants. Table 2 includes means, standard deviations, minimum and maximum scores for demographic information.

Table 1. Frequencies of the Demographic Information

Variable		<i>N</i> = 393
Gender	Female	304
	Male	81
	Preferred not to share	6
	Other	2
	Missing Data	0
Level of education	Undergraduate	387
	Master's	1
	Missing Data	5
Mother status	Alive	386
	Deceased	4
	Missing Data	3
Father status	Alive	375
	Deceased	17
	Missing	1
Parental status	Together/Married	325
	Divorced	40
	Separated	5
	One of my parents is deceased.	21
	Missing Data	2

The mean age of the participants was 21.81 ( $SD = 1.35$ ) with a range of 19 to 25 years. Mean of the years at the university was 3.11 ( $SD = 1.25$ ) with the minimum years at the university was being 0.5, and maximum was 7 years.

Table 2. Descriptive Features of the Demographic Information

Variable	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
Age	393	19	25	21.81	1.35
Years at the university	392	0.5	7	3.11	1.23

### 3.2 Instruments

Participants were expected to read informed consent form (see Appendices A and B for English and Turkish, respectively) and confirm their voluntary participation into the study. The study utilized six self-report measurement instruments in addition to the demographic information form (see Appendices C and D for English and Turkish, respectively). The self-report measurement tools are Kessler Psychological Distress Scale (K10-PDS; see Appendices E and F, for English and Turkish, respectively), Adverse Childhood Experiences (ACE) Scale (see Appendices G and H for English and Turkish, respectively), Benevolent Childhood Experiences (BCE) Scale (see Appendices I and J for English and Turkish, respectively), Emotion Regulation Questionnaire (ERQ; see Appendices K and L for English and Turkish, respectively), and Compass of Shame Scale (CoSS; see Appendices M and N for English and Turkish, respectively). Original versions and adaptations of all measurement instruments are provided in the Appendices E through N. Table 3 shows a summary of the instruments used in the study.

Table 3. Variables, Instruments, and Number of Items

Variable	Instruments	Number of items
Adverse childhood experiences	Adverse Childhood Experiences Scale (ACES; Felitti et al., 1998; Gündüz et al., 2018)	10 items
Benevolent childhood experiences	Benevolent Childhood Experiences Scale (BCES; Gunay-Oge et al., 2020b; Narayan et al., 2018)	10 items
Emotion regulation	Emotion Regulation Questionnaire (ERQ; Eldeleklioğlu & Eroğlu, 2015; Gross & John, 2003)	10 items
Shame coping	Compass of Shame Scale (CoSS; Akıncı & Cesur-Altıntaş, 2020; Elison, Lennon, et al., 2006)	48 items
Psychological distress	Kessler Psychological Distress Scale (K10-PDS; Altun et al., 2019; Kessler et al., 2002)	6 items
Demographic information form	Demographic information of age, gender, level of study, number of semesters at the college, and parental information	7 items

### 3.2.1 Demographic information form

The demographic information form is developed by the researcher to collect data about participants' background. The form includes questions about participants' date of birth, gender, educational level, number of semesters at the college, parental status of being alive or deceased, and parental marital situation (see Appendices D and E). These questions aimed to understand the participant demographics more thorough for discussing study results.

### 3.2.2 Kessler Psychological Distress Scale (K10-PDS)

The Kessler Psychological Distress Scale (K10-PDS) was originally developed by Kessler and colleagues in 2002 as a psychological distress screening tool for general population. The long form of the scale includes 10 items, and the short form (K6-PDS) consists of six items (Kessler et al., 2002). It is a 5-Point Likert type scale with the lowest score of 10 and the highest possible score of 50 (Kessler et al., 2002). Higher scores on the scale indicated less psychological distress. The reliability coefficient is calculated as  $\alpha = .88$  (Fassaert et al., 2009). K10-PDS is stated as a unidimensional assessment tool. It is stated that the K10-PDS is a robust measurement tool for community samples to assess psychological distress (Altun et al., 2019). Sample item for this scale is “During that month, how often did you feel so nervous that nothing could calm you down?”

The K10-PDS was adapted to Turkish by Altun and colleagues in 2019. The 10-item structure with the highest score of 50 and the lowest score of 10 was kept (Altun et al., 2019). In terms of psychometric properties, Cronbach alpha coefficient is stated as .95, test-retest reliability is stated as satisfactory,  $r = .89$ ,  $p < .001$ , split-half reliability coefficient is  $r = .93$ ,  $p < .001$  (Altun et al., 2019). In the current study, Cronbach’s alpha correlation coefficient was calculated as .90.

### 3.2.3 Adverse Childhood Experiences Scale

Adverse Childhood Experiences (ACEs) scale is a self-report tool and used for investigating the negative and traumatic experiences between the ages of 0 to 18. It originally had 17 items and was developed by (Felitti et al., 1998). The scale revised and

the current version is a 10-item checklist. There is no reverse item in the scale. Higher scores on the scale indicates more ACEs (Gündüz et al., 2018). The possible highest score is 10 and lowest score is 0 for the scale. The scale consists of questions about the relationships and environmental conditions during the first 18 years of life (Felitti et al., 1998; Gündüz et al., 2018).

Some sample items from the scale are “Did a parent or other adult in the household often or very often... Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt?” and “Was a household member depressed or mentally ill or did a household member attempt suicide?”

ACEs scale was adapted to Turkish by Ulukal and colleagues in 2013, and psychometric properties of the scale is studied by Gündüz and colleagues in 2018. The reliability coefficient is calculated as  $\alpha = .74$ , and the interrater reliability is stated as high (Gündüz et al., 2018). The construct validity is calculated by the correlations between ACEs scale and Symptom Assessment-45 Questionnaire, and stated as high (Gündüz et al., 2018). In the current study, KR-20 reliability of the test was calculated as .68.

#### 3.2.4 Benevolent Childhood Experiences Scale

Benevolent Childhood Experiences (BCEs) scale is developed as a counterpart for Adverse Childhood Experiences (ACEs) scale (Narayan et al., 2018). It was originally developed by Narayan and colleagues (2018) and was aimed to be a multiculturally-



sensitive and independent from the economic conditions and demographic background (Narayan et al., 2018).

Sample items for this scale are as follows: “Did you have at least one caregiver with whom you felt safe?” and “Did you have a predictable home routine, like regular meals and a regular bedtime?”

The BCEs scale has 10 items with yes or no answers to investigate positive childhood experiences between the ages of 0 to 18. Higher scores on the BCEs scale indicates higher benevolent childhood experiences. The possible highest score is 10 and lowest score is 0 for the scale. The scale includes questions about the quality-of-life conditions and experiences of safety (Gunay-Oge et al., 2020b; Narayan et al., 2018). The reliability of the BCEs is stated as high, ( $r = .80, p < .01$ ) and it has good predictive validity in the sample of low-income pregnant women with diverse backgrounds.

The BCEs scale was adapted to Turkish by (Gunay-Oge et al., 2020b). Results indicated that the scale has two factor structure including “perceived safety and support” and the “internal and environmental motivation” (Gunay-Oge et al., 2020b). Internal consistency coefficient is stated as  $r = .61$ , and test-retest reliability is stated as satisfactory,  $r = .91$  (Gunay-Oge et al., 2020b). In the current study, Cronbach’s alpha correlation coefficient was calculated as .61.

### 3.2.5 Emotion Regulation Questionnaire (ERQ)

The Emotion Regulation Questionnaire (ERQ) was developed by Gross and John (2003) to assess the individual’s frequently used emotion regulation strategies. It has a two-factor structure which are the strategies of reappraisal and suppression (Gross & John,

2003). It has 10 items and is a 1-7-Likert type scale, 1 meaning “strongly disagree” and 7 meaning “strongly agree” (Gross & John, 2003). The scale has two subscales named reappraisal and suppression (Gross & John, 2003). The first six items were combined to score reappraisal and last four items were combined to score suppression factors. The lowest score for the reappraisal subscale is 6, and the highest is 42, whereas the lowest score for the suppression subscale is 4, and the highest is 28 (Gross & John, 2003).

Sample items for the scale are “I control my emotions by changing the way I think about the situation I’m in.” for reappraisal and “When I am feeling positive emotions, I am careful not to express them.” for suppression.

In terms of psychometric properties of the original scale, the internal reliability coefficient was calculated as ranging between .80 and .82 for the reappraisal factor, and .73 and .76 for the suppression factor (Gross & John, 2003). Test-retest reliability with a three-month interval was calculated as .69 for both tests (Gross & John, 2003).

The ERQ was adapted to Turkish by Eldeleklioğlu and Eroğlu in 2015. The two-factor structure of the questionnaire and the lowest and highest scores for them were preserved in the Turkish adaptation (Eldeleklioğlu & Eroğlu, 2015). The internal consistency coefficient was calculated as .78 for the reappraisal and .73 for the suppression subdimension (Eldeleklioğlu & Eroğlu, 2015). Test-retest reliability coefficients were calculated as .74 for the reappraisal and .72 for the suppression subdimension (Eldeleklioğlu & Eroğlu, 2015). In the current study, Cronbach’s alpha correlation coefficient was calculated as .85 for reappraisal, and .83 for suppression factors.

### 3.2.6 Compass of Shame Scale (CoSS)

The Compass of Shame Scale was originally developed by (Elison, Lennon, et al., 2006) with the aim of investigating individuals' methods for coping with shame. The original scale included 48 items consists of 12 scenarios with four responses to rate on a 5-point Likert scale, 1 meaning “never” and 5 meaning “almost always” (Elison, Lennon, et al., 2006). Each of the four responses included a maladaptive way of coping style with shame which are avoidance, withdrawal, attack self, and attack other (Elison, Lennon, et al., 2006). These four types of shame coping styles constitute four subscales with the same names as the shame coping styles. Higher scores on subscales indicate higher utilization of the shame coping styles. While four scores for four subscales can be calculated, total score for the scale can also be calculated. For total score approach, the higher scores indicated higher levels of maladaptive coping styles adopted by the individual (Elison, Lennon, et al., 2006).

Some sample items from the scale are “I pull away from others.” for withdrawal, “I want to point out their faults.” for attack other, “I feel irritated with myself.” for attack self, and “I cover up the humiliation by keeping busy.” for avoidance.

In terms of psychometric properties of the original scale, internal consistency reliability coefficients of the factors were .89 for withdrawal, .85 for attack other, .91 for attack self, and .74 for avoidance (Elison, Lennon, et al., 2006). Test-retest reliability of the factors ranged between .75 and .85 (Elison, Lennon, et al., 2006).

The scale was adapted to Turkish by Akıncı and Cesur-Altıntaş in 2020. The scale preserved the 48 items and four-factor structure in the adaptation (Akıncı & Cesur-Altıntaş, 2020). The Cronbach's alpha values for the internal consistency reliabilities of the factors were estimated as .86 for withdrawal, .85 for attack other, .89 for attack self,

and .71 for avoidance (Akıncı & Cesur-Altıntaş, 2020). The values calculated for test-retest reliability ranged from .71 to .80 (Akıncı & Cesur-Altıntaş, 2020). For the current study, Cronbach's alpha correlation coefficient was calculated as .84 for withdrawal, .84 for attack other, .91 for attack self, .75 for avoidance.

### 3.3 Procedure

Before data collection, permission from the Institute for Graduate Studies in Social Sciences Ethics Sub-Committee (INAREK) at Bogazici University was obtained (see Appendix O). After the permission procedure and thesis committee approval, data collection medium was online via Google Forms.

The online survey included the online versions of informed consent form, demographic information form, Kessler Psychological Distress Scale (K10-PDS), Adverse Childhood Experiences (ACE) Scale, Benevolent Childhood Experiences (BCE) Scale, Emotion Regulation Questionnaire (ERQ), Compass of Shame Scale (CoSS). The demographic information form was the only part that was not required to fill. The other instruments were required to fill. Participants were reached by the help of mass courses provided by two public universities at Istanbul, e-mail lists, Facebook groups and other social media platforms. Filling out the online survey took approximately 10 minutes.

### 3.4 Design and data analysis

The study design had a correlational nature which focuses on the relationship between the childhood experiences and later psychological adjustment while exploring the mediational effects of emotion regulation and shame coping.

The data were analyzed with the Statistical Packages for Social Sciences (SPSS-version 26.0) and Amos (version 26.0). The significance level was set at .05, unless otherwise indicated. The analysis used an exploratory approach because of the relatively new and unstructured relationships between the proposed variables (P. Kline, 2014).

Path analysis of Structural Equational Modeling (SEM) was used to understand and explore the mediated relationship in the study. It is used for comparing a proposed model with the existing literature (R. B. Kline, 2016). Path analysis can show the absence of causal relationships in a proposed model but cannot claim causality for any model (Streiner, 2005).

In the path analysis, the independent variables are named as exogenous variables, and dependent variables are named as endogenous variables (Kline, 2016). Another variable distinction that SEM and path analysis uses is observed and latent variables (R. B. Kline, 2016). Observed variables are the ones that the researcher collects data with various measurement tools (R. B. Kline, 2016). Latent variables are ‘hypothetical constructs’ without definite measures (R. B. Kline, 2016). Path models can be defined as the representation of the hypothesized relationships between observed variables with a structural diagram of independent (exogenous), dependent (endogenous), and intermediary (mediator) variables (R. B. Kline, 2016). In path models, observed variables are shown with squares, and latent variables are shown with circles (R. B. Kline, 2016). Path analysis does not utilize a single test to determine model fit (Streiner, 2005). It combines multiple tests such as chi-square, Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit-Index (AGFI) to determine the model fit (Kline, 2016; Streiner, 2005).

## CHAPTER 4

### RESULTS

#### 4.1 Preliminary analyses

Before conducting the primary analysis of the study, assumptions were checked for path analysis. Additionally, descriptive statistics were reported. Descriptive aspects of the sample were investigated with frequencies, means, standard deviations and minimum and maximum values. Additionally, correlation coefficients among variables were explored with Pearson product-moment correlation coefficient.

##### 4.1.1 Sample size

In path analysis literature, it is recommended that for every parameter investigated, 10-20 cases of participants necessitated for the requirement of sample size (R. B. Kline, 2016). Tabachnick and Fidell (2014) recommended that the minimum required sample size should be calculated with a model of  $N > 50 + 8m$ ,  $m$  being the number of independent variables in the study. This study has met the sample size requirement by 393 for the path analysis according to these recommendations.

##### 4.1.2 Missing data

There is not any missing data in terms of the answers to measurement tools used in the path analysis. However, in the demographic information there were missing data. For mother status three participants, for father status one participant, and for parental status two participants did not answer the related question.

#### 4.1.3 Outlier analysis

For univariate outliers, standardized z-scores for the variables were used. Following the criterion by Tabachnick and Fidell (2014), values that are not in the range of -3.29 and +3.29 were considered as univariate outliers. Three potential outliers for the score on adverse childhood experiences, one potential outlier for the score on benevolent childhood experiences, and two potential outliers for the score on reappraisal subscale of emotion regulation, were detected.

Multivariate normality was checked with Mahalanobis distance (Mahalanobis  $D^2$ ) using AMOS 25. The Mahalanobis distance (Mahalanobis  $D^2$ ) is the distance between a case and the centroid of the remaining cases, with the centroid being the point formed by the intersection of all the variables' means. Five cases were identified as multivariate outliers with chi-square values larger than 20.52 ( $df = 5, p < .001$ ) in the dataset of the study.

Because path analysis is not substantially affected by the univariate outliers and additionally, the z-score values of them were not extreme, those were kept in the dataset. Moreover, multivariate outliers were not very extreme and few in number, those were not excluded as well. Path analysis was conducted with and without multivariate outliers, and results remained the same.

#### 4.1.4 Normality tests

AMOS 25 was used to investigate univariate and multivariate normality assumption for path analysis. For univariate normality, skewness and kurtosis values were taken into consideration. While it is suggested that skewness and kurtosis values should be close to

zero, the acceptable range of skewness and kurtosis values is -3 to +3 (R. B. Kline, 2016; Tabachnick & Fidell, 2014). Values between the stated range indicate univariate normality for a continuous variable. In the study, values for skewness ranged between -1.128 to 1.305, and values for kurtosis ranged between -.849 to .955 indicating univariate normality.

To explore multivariate normality assumption, multivariate kurtosis value was used. Multivariate kurtosis value is calculated with the formula of  $p(p+2)$ ,  $p$  being the number of predictor variables (Raykov & Marcoulides, 2008). In the study, there are two predictor variables, namely ACEs and BCEs, meaning that multivariate kurtosis value should be lower than 8 according to formula. The multivariate kurtosis value of the study was calculated as 7.242 indicating no violations for the assumption.

#### 4.1.5 Linearity and homoscedasticity

The linearity and homoscedasticity assumption were checked by visually evaluating scatterplots and normal P-P plot of regression standardized residual for the variables used in the study (Tabachnick & Fidell, 2014). Visual evaluations did not indicate violations of linearity and homoscedasticity assumptions meaning the associations between the variables were linear and variances among variables were distributed homogeneously.

#### 4.1.6 Multicollinearity

Univariate and multivariate multicollinearity were examined with SPSS version 26.0. Intercorrelations between study variables were checked for univariate multicollinearity.



It is suggested that the correlations among variables do not exceed .80 (Tabachnick & Fidell, 2014). In the study, the highest correlation coefficient was .44 which satisfied the univariate multicollinearity assumption.

Collinearity analyses were conducted to investigate multivariate multicollinearity assumption. Tolerance and variance inflation factors (VIF) values were checked with SPSS version 26. In order to satisfy the assumption, value for tolerance should be above .20, and VIF value should be lower than 10. Tolerance value was in the range of .721 to .927, and VIF value was in a range of 1.078 to 1.386 (Field, 2009). Results satisfied the multivariate multicollinearity assumption.

## 4.2 Presentation of the results

In this section, descriptive analyses were presented with frequencies, means, standard deviations, and minimum and maximum values. Additionally, correlations among variables were investigated with Pearson product-moment correlation coefficient. Path analysis results were also presented.

### 4.2.1 Descriptive analyses

Table 4 displays the means, standard deviations, minimum and maximum scores, skewness, and kurtosis values of the instruments utilized in the study. Table 5 demonstrates the means, standard deviations, minimum and maximum scores according to gender for the measures utilized in the study.

Table 4. Descriptive Features of the Instruments and Measurements ( $N = 393$ )

Instrument	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
Adverse Childhood Experiences Scale	0	7	1.26	1.65	1.305	.955
Benevolent Childhood Experiences Scale	2	10	8.29	1.73	-1.128	.734
Emotion Regulation Questionnaire Reappraisal	6	42	29.58	6.38	-.679	.669
Emotion Regulation Questionnaire Suppression	4	28	14.45	5.75	.036	-.849
Compass of Shame Scale	53	206	130.30	26.30	-.196	-.152
Psychological Distress Scale	10	50	28.46	8.51	.323	-.403

For Adverse Childhood Experiences Scale (ACES) higher scores indicated more incidents of ACEs, and scale scores ranged from 0 to 7. For Benevolent Childhood Experiences Scale (BCEs) higher scores mean more BCEs, and scores ranged from 2 to 10 for the scale. Emotion regulation strategies of reappraisal and suppression were assessed with Emotion Regulation Questionnaire. Higher scores on the dimensions of reappraisal and suppression suggest higher utilization of the strategies. Scale score for reappraisal ranged from 6 to 42, and for suppression 4 to 28. For shame coping higher scores implied higher levels of maladaptive shame coping styles and scores ranged between 53 to 206. Lastly, for psychological distress higher scores indicated higher levels of psychological distress, and scores ranged between 10 to 50.

In terms of frequencies, 193 participants reported that they do not have ACEs, 74 participants reported one ACE, 38 participants reported two ACEs, 40 participants reported three ACEs, 28 participants reported four ACEs, nine participants reported five ACEs, eight participants reported six ACEs, and three participants reported seven ACEs.

Additionally, in terms of BCEs, one participant reported two BCEs, five participants reported three BCEs, 11 participants reported four BCEs, 17 participants reported five BCEs, 27 participants reported six BCEs, 44 participants reported seven BCEs, 62 participants reported eight BCEs, 113 participants reported nine BCEs and 113 participants reported ten BCEs. Moreover, 145 of the participants who reported zero ACE, also reported nine or ten BCEs. In the study, 49.1% of the participants reported that they do not have ACEs, and 57.6% of the participants reported nine or ten BCEs. Therefore, participants in the study mostly had low ACEs, and high BCEs.

Table 5. Descriptive Features of the Instruments and Measurements by Gender

Measure	Females ( <i>N</i> = 304)				Males ( <i>N</i> = 81)			
	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
Adverse Childhood Experiences Scale	0	7	1.31	1.65	0	7	1.00	1.63
Benevolent Childhood Experiences Scale	3	10	8.36	1.66	2	10	8.23	1.74
Emotion Regulation Questionnaire - Reappraisal	6	42	29.65	6.62	14	41	29.74	5.30
Emotion Regulation Questionnaire - Suppression	4	28	13.89	5.68	4	27	16.14	5.46
Compass of Shame Scale	53	206	131.26	27	63	184	124.90	22.37
Psychological Distress Scale	10	50	29.00	8.26	10	50	25.51	8.15

Due to lack of representativeness of the gender diversity, participants reported their genders as ‘preferred not to share’ and ‘other’ were excluded in the analyses for mean differences. There were not statistically significant mean differences for female and male participants for ACEs, BCEs, reappraisal dimension of emotion regulation, and

shame coping. In terms of suppression emotion regulation strategy, females ( $M = 13.89$ ,  $SD = 5.68$ ) reported less utilization of suppression than males ( $M = 16.14$ ,  $SD = 5.46$ ),  $t(383) = -3.195$ ,  $p = .002$ . Additionally, females ( $M = 29.00$ ,  $SD = 8.26$ ) reported more psychological distress than males ( $M = 25.51$ ,  $SD = 8.15$ ),  $t(383) = 3.388$ ,  $p = .001$ .

#### 4.2.2 Correlations among variables

Pearson product-moment correlation coefficient was used to explore the correlations among adverse childhood experiences, measured with ACES, benevolent childhood experiences, measured with BCES, emotion regulation, measured with ERQ, shame coping, measured with CoSS, and psychological distress, measured with K10-PDS. Cohen's standard was used as a criterion for evaluating correlation coefficients, which states that correlations between .10 and .29 are weak, those between .30 and .49 are moderate, and those between .50 and .99 are strong (Cohen, 1988). Correlations among the variables of the study were shown in the Table 6. All study variables were found to be correlated except reappraisal dimension of the emotion regulation. The range of the correlation coefficients were weak to moderate.

ACEs and BCEs were found to be negatively and moderately correlated ( $r = -.444$ ,  $p < .01$ ). ACEs and reappraisal dimension of emotion regulation were weakly negatively correlated ( $r = -.254$ ,  $p < .01$ ), indicating participants with higher number of ACEs reported lower levels of reappraisal strategy utilization which is an adaptive emotion regulation strategy. The correlation between ACEs and maladaptive shame coping was weak and positive ( $r = .291$ ,  $p < .01$ ), meaning that higher number of ACEs are related with higher maladaptive shame coping styles. ACEs and psychological

distress were moderately and positively correlated ( $r = .335, p < .01$ ), implying participants with higher number of ACEs reported higher levels of psychological distress.

BCEs were positively and moderately correlated with reappraisal strategy ( $r = .314, p < .01$ ), meaning that participants with more BCEs reported higher levels of reappraisal strategy usage which is an adaptive emotion regulation strategy. BCEs and suppression strategy were weakly and negatively correlated ( $r = -.174, p < .01$ ), meaning that higher numbers of BCEs are related with lower levels of utilization of suppression strategy which is a maladaptive emotion regulation strategy. The correlation between BCEs and maladaptive shame coping was moderate and negative ( $r = -.311, p < .01$ ), implying higher numbers of BCEs are related with lower levels of maladaptive shame coping styles. BCEs and psychological distress were correlated moderately and negatively ( $r = -.345, p < .01$ ), indicating higher levels of BCEs are associated with lower levels of psychological distress.

Reappraisal strategy of emotion regulation was weakly and negatively correlated with maladaptive shame coping style ( $r = -.230, p < .01$ ), meaning more reappraisal strategy usage was related with lower levels of maladaptive shame coping style use. Reappraisal strategy of emotion regulation and psychological distress were moderately and negatively correlated ( $r = -.378, p < .01$ ), indicating more reappraisal strategy utilization was associated with lower levels of psychological distress. The correlation between suppression strategy of emotion regulation and maladaptive shame coping was weak and positive ( $r = .231, p < .01$ ), implying that when the utilization of suppression strategy increases, usage of maladaptive shame coping increases as well. Suppression strategy of emotion regulation and psychological distress were also weakly and

positively correlated ( $r = .168, p < .01$ ), which means higher levels of suppression strategy utilization was related with higher levels of psychological distress. Lastly, maladaptive shame coping strategy and psychological distress were moderately and positively correlated ( $r = .434, p < .01$ ), indicating higher levels of usage of maladaptive shame coping strategy were associated with higher levels of psychological distress.

Table 6. Pearson Correlations for the Study Variables ( $N = 393$ )

Variables	1	2	3	4	5	6
1. Adverse Childhood Experiences						
2. Benevolent Childhood Experiences	-.44**					
3. Emotion Regulation - Reappraisal	-.25**	.31**				
4. Emotion Regulation - Suppression	.05	-.17**	-.01			
5. Shame coping	.29**	-.31**	-.23**	.23**		
6. Psychological distress	.33**	-.34**	-.37**	.16**	.43**	

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

#### 4.2.3 Structural Equation Model: Path Analysis

This study explored the relationship among ACEs, BCEs, and psychological distress with the mediators of emotion regulation and shame coping. Path analysis of Structural Equation Modeling (SEM) was employed to investigate the relationships among variables, and it was conducted via AMOS 25. The reported model fit indices were selected according to the literature of social sciences statistics, and criteria used for them were presented in the Table 7.

Overall model fit, standardized and unstandardized estimates, indirect and direct effects, and squared multiple correlations were used to investigate the proposed model. Bootstrapping method was used to explore indirect effects. A total of 2,000 bootstrap

samples were generated from the original data set. For indirect effects, confidence intervals (CI) were also calculated. In this study, an alpha level of .05 was chosen for the significance tests.

Table 7. Cut-off Criteria for Path Analysis Fit Indices

Model Fit Indices	Perfect Fit	Acceptable Fit	Reference
$\chi^2/df$	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 3$	Kline (2016)
RMSEA	$0 \leq RMSEA \leq 0.6$	$0.6 \leq RMSEA \leq 0.7$	Hu and Bentler (1999)
CFI	$0.95 \leq CFI \leq 1.00$	$0.90 \leq CFI \leq 0.95$	Hu and Bentler (1999)
GFI	$0.95 \leq GFI \leq 1.00$	$0.90 \leq GFI \leq 1.00$	Miles and Shevlin (1998)
AGFI	$0.90 \leq AGFI \leq 1.00$	$0.85 \leq AGFI \leq 1.00$	Hu and Bentler (1999)

*Note.*  $\chi^2/df$  = Normed Chi-square, RMSEA = Root Mean Square Error of Approximation, CFI = Comparative Fit Index, GFI = Goodness-of-Fit Index, AGFI = Adjusted Goodness-of-Fit-Index.

The proposed model for the study was presented in Figure 1. The proposed model included six variables measured with five instruments. ACEs were measured with Adverse Childhood Experiences Scale (ACES) and higher scores indicated more incidents of ACEs. In the study, scale scores ranged from 0 to 7. Benevolent Childhood Experiences Scale (BCES) was used to measure BCEs, and higher scores mean more BCEs. In the study, scores ranged from 2 to 10 for the scale. Emotion regulation strategies of reappraisal and suppression were assessed with Emotion Regulation Questionnaire. Higher scores on the dimensions of reappraisal and suppression suggest higher utilization of the strategies. Scale score for reappraisal ranged from 6 to 42, and for suppression 4 to 28. Shame coping was measured with Compass of Shame Scale (CoSS), in which higher scores imply higher levels of maladaptive shame coping styles.

Scores from CoSS ranged between 53 to 206. Lastly, psychological distress was evaluated with Kessler Psychological Distress Scale (K10-PDS) in which higher scores indicate higher levels of psychological distress. For this scale, the minimum score in the study was 10, and maximum score was 50.

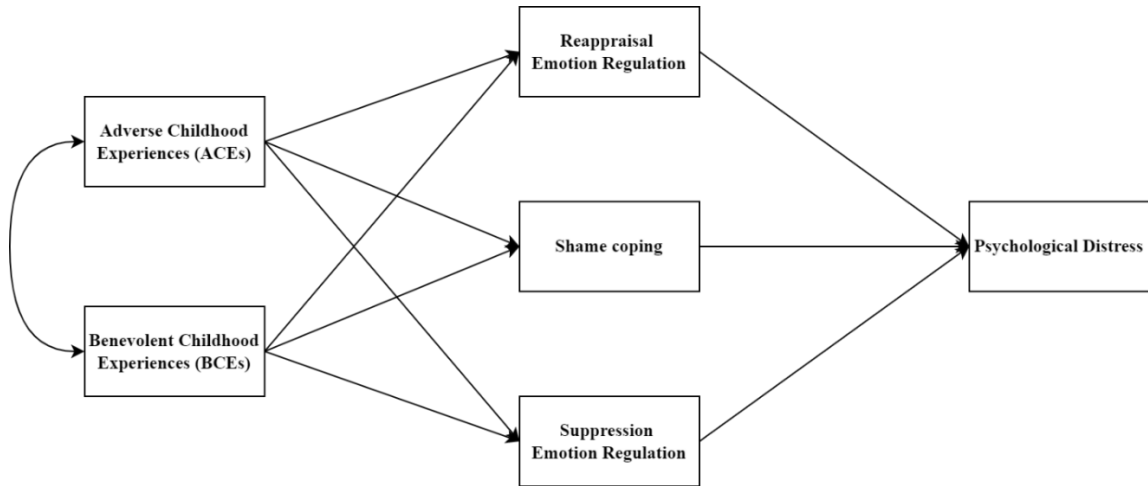


Figure 1. Proposed path model with study variables

In the proposed model, direct and indirect relationships were explored. Firstly, the direct effect of ACEs (exogenous variable) on reappraisal and suppression strategies and shame coping (mediator variables) was explored. Additionally, the direct effect of BCEs (exogenous variable) on reappraisal and suppression strategies and shame coping (mediator variables) was explored. Then, the direct effects of reappraisal and suppression strategies and shame coping (mediator variables) on psychological distress (endogenous variable) were analyzed.

In terms of indirect effects, the relationship between ACEs and psychological distress via reappraisal and suppression strategies and shame coping was investigated.



Moreover, the relationship between BCEs and psychological distress via reappraisal and suppression strategies and shame coping was explored.

#### 4.2.3.1 Model fit

Model fit statistics were evaluated for the proposed model and results were presented in the Table 8. Results indicated that chi-square was significant  $\chi^2(5) = 42.833$  ( $p < .001$ ), which means the proposed model was not within the acceptable range for chi-square. Other fit indices were found as RMSEA = .139, CFI = .893, GFI = .966, and AGFI = .857 (Table 8). Results were not within acceptable range, therefore, modification on the proposed model were made.

Table 8. Model Fit Index Values of the First and the Modified Model

Model Fit Indices	Values of the Proposed Model	Values of the Modified Model
$\chi^2/df$	8.566	.631
RMSEA	.139	.000
CFI	.893	1.000
GFI	.966	.999
AGFI	.857	.989

*Note.*  $\chi^2/df$  = Normed Chi-square, RMSEA = Root Mean Square Error of Approximation, CFI = Comparative Fit Index, GFI = Goodness-of-Fit Index, AGFI = Adjusted Goodness-of-Fit-Index.

Since the relationship between shame coping and emotion regulation was not thoroughly explored in the literature, a modification on the proposed model was adding direct effects between reappraisal and suppression dimensions of emotion regulation and shame coping. Additionally, in the literature, it was stated that there is a relationship between ACEs and psychological distress (Gündüz et al., 2019; Kaloeti et al., 2019;

Karatekin, 2018). Hence, another direct effect was included between ACEs and psychological distress. Moreover, a direct effect was suggested between BCEs and psychological distress, and it was included in the model. In the literature, there are limited sources about the relationship between BCEs and psychological distress, however, it was stated that they are negatively associated (Merrick, 2019). Modified path analysis was presented in Figure 2. The results of the modified model demonstrated good fit, and fit indices noted as  $\chi^2(1) = .631$  ( $p = .427$ ), RMSEA = .000, CFI = 1.000, GFI = .999, and AGFI = .989. These results were in the acceptable range. Therefore, direct, indirect, and total effects were explored.

#### 4.2.3.2 Direct effects

In this section, the direct effects among variables were explored and reported. Apart from two direct relationships, all path coefficients were found significant. In Table 9, the beta coefficients and p-values for the direct effects were presented.

ACEs were predicted reappraisal dimension of emotion regulation ( $\beta = -.143, p < .01$ ), shame coping ( $\beta = .177, p < .01$ ), and psychological distress ( $\beta = .139, p < .01$ ).

There was a non-significant direct effect between ACEs and suppression dimension of emotion regulation ( $\beta = -.028, p > .05$ ). BCEs were found to be predicting reappraisal ( $\beta = .250, p < .01$ ) and suppression ( $\beta = -.187, p < .01$ ) dimensions of emotion regulation, shame coping ( $\beta = -.157, p < .01$ ), and psychological distress ( $\beta = -.104, p < .05$ ).

Reappraisal ( $\beta = -.242, p < .01$ ) dimension of emotion regulation predicted psychological distress. There was not a significant direct effect between suppression dimension of emotion regulation and psychological distress ( $\beta = .073, p > .05$ ).

Reappraisal ( $\beta = -.133, p < .01$ ) and suppression ( $\beta = .192, p < .01$ ) dimensions of emotion regulation predicted shame coping. Shame coping was found to be predicting psychological distress ( $\beta = .288, p < .01$ ).

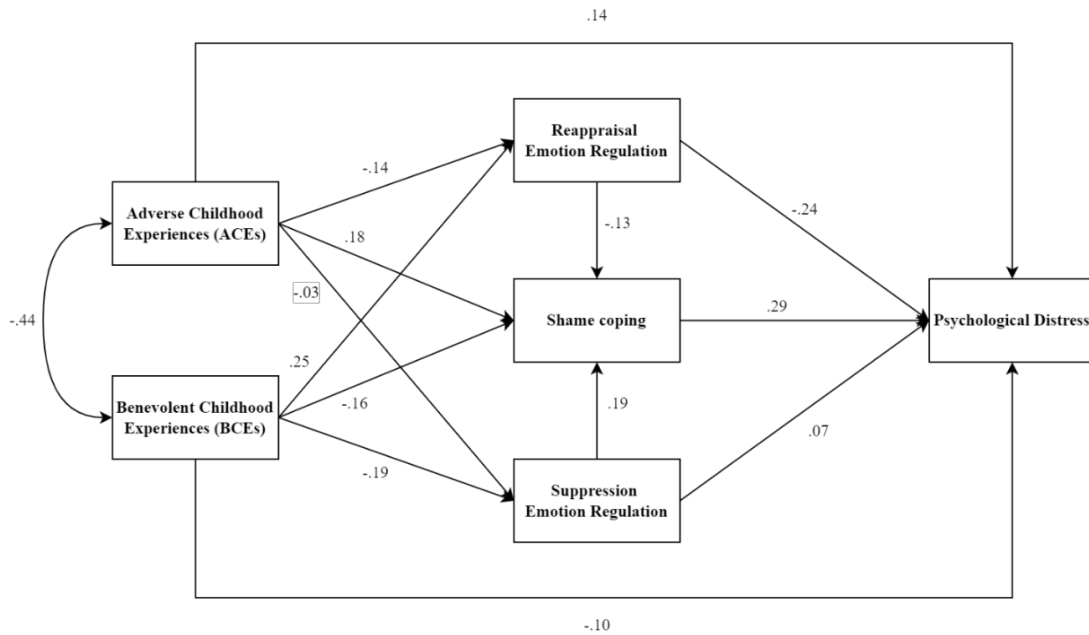


Figure 2. Modified path model with study variables

All significant direct effects in the model were found to be in line with the previous literature. Higher number of BCEs predicted higher utilization of reappraisal emotion regulation strategy which is adaptive and lower utilization of suppression strategy which is maladaptive. Moreover, higher number of BCEs predicted lower levels of maladaptive shame coping style and psychological distress. Respectively, higher number of ACEs predicted lower utilization of reappraisal emotion regulation strategy. Additionally, higher numbers of ACEs predicted higher levels of maladaptive shame coping style and psychological distress. Maladaptive shame coping was predicted by

both dimensions of emotion regulation meaning that while higher reappraisal strategy predicted lower levels of maladaptive shame coping style, higher suppression strategy predicted higher levels of maladaptive shame coping style. Lastly, increased reappraisal strategy utilization predicted decreased psychological distress.

Table 9. Path Analysis Results Regarding Direct Effects

Path	<i>B</i>	$\beta$	<i>SE</i>	<i>p</i>
BCEs → ER Reappraisal	.922	.250**	.196	<.001
ACEs → ER Reappraisal	-.554	-.143*	.205	.007
ACEs → ER Suppression	-.099	-.028	.193	.609
BCEs → ER Suppression	-.621	-.187**	.184	<.001
ACEs → Shame coping	2.826	.177**	.824	<.001
BCEs → Shame coping	-2.387	-.157*	.811	.003
ER Reappraisal → Shame coping	-.547	-.133*	.201	.007
ER Suppression → Shame coping	.878	.192**	.213	<.001
Shame coping → Psychological distress	.093	.288**	.015	<.001
ER Reappraisal → Psychological distress	-.324	-.242**	.060	<.001
ACEs → Psychological distress	.717	.139*	.247	.004
BCEs → Psychological distress	-.515	-.104*	.242	.034
ER Suppression → Psychological distress	.108	.073	.064	.095

*Note.* \*\* $p < .001$ , \* $p < .05$ . *B* = Unstandardized Regression Weight, *S.E.* = Standard Error,  $\beta$  = Standardized Regression Weight, ACEs = Adverse Childhood Experiences, BCEs = Benevolent Childhood Experiences, ER = Emotion regulation.

#### 4.2.3.3 Indirect effects

Indirect effects were investigated to explore mediational relationships in the model.

Bootstrapping method was used to estimate statistics for indirect effects among study variables. Bootstrapping is defined as a resampling strategy aiming to create many simulated samples to resemble a population to estimate statistics (Hayes, 2009). For

bootstrapping, 2,000 samples were generated, and confidence interval percentage was specified as 95%. The significance of the indirect effects was decided by the p-values being lower than .05 and exclusion of zero in the range of lower and upper bounds.

There were six indirect effects identified in the path analysis. Five of the indirect effects were found significant. Only non-significant indirect effect was between ACEs and shame coping through emotion regulation dimensions of reappraisal and suppression.

The indirect effect of ACEs on psychological distress via emotion regulation dimensions and shame coping was found significant ( $\beta = .088$ ,  $S.E. = .027$ ,  $p < .01$ , 95% CI [.038, .150]). Similarly, BCEs predicted psychological distress via emotion regulation dimensions and shame coping ( $\beta = -.139$ ,  $S.E. = .029$ ,  $p < .01$ , 95% CI [-.198, -.086]). Reappraisal and suppression dimensions of emotion regulation mediated the relationship between BCEs and shame coping ( $\beta = .069$ ,  $S.E. = .020$ ,  $p < .01$ , 95% CI [-.115, -.034]). There were significant indirect effects of reappraisal ( $\beta = -.038$ ,  $S.E. = .015$ ,  $p < .01$ , 95% CI [-.72, -.011]) and suppression ( $\beta = .055$ ,  $S.E. = .017$ ,  $p < .01$ , 95% CI [.027, .093]) dimensions of emotion regulation on psychological distress via shame coping (Table 10).

In order to have a more detailed perspective on the indirect effects, individual indirect effects among variables were investigated. The results of individual indirect effects were shown in Table 11.

Results indicated emotion regulation and shame coping mediated the relationship between BCEs and psychological distress. Additionally, the relationship between ACEs and psychological distress was mediated by both emotion regulation strategies and shame coping.

Table 10. Path Analysis Results Regarding Grouped Indirect Effects

Independent variable	Mediator(s)	Dependent variable	$\beta$	<i>S.E.</i>	<i>Lower bound</i>	<i>Upper bound</i>	<i>p</i>
ACEs	ER Reappraisal, ER Suppression, Shame coping	Psychological distress	.088*	.027	.038	.150	.001
ACEs	ER Reappraisal, ER Suppression	Shame coping	.014	.016	-.014	.047	.325
BCEs	ER Reappraisal, ER Suppression, Shame coping	Psychological distress	-.139*	.029	-.198	-.086	.001
BCEs	ER Reappraisal, ER Suppression	Shame coping	-.069*	.020	-.115	-.034	.001
ER Reappraisal	Shame coping	Psychological distress	-.038**	.015	-.072	-.011	.004
ER Suppression	Shame coping	Psychological distress	.055*	.017	.027	.093	.001

*Note.* \* $p < .001$ , \*\* $p < .05$ .  $\beta$  = Standardized Regression Weight, *S.E.* = Standard Error, ACEs = Adverse Childhood Experiences, BCEs = Benevolent Childhood Experiences, ER = Emotion regulation.

#### 4.2.3.4 Total effects

The total effect of ACEs on psychological distress was found significant ( $\beta = .226$ ,  $SE = .050$ ,  $p < .01$ , 95% CI [.133, .332]). Moreover, there was a significant total effect of BCEs on psychological distress ( $\beta = -.244$ ,  $SE = .063$ ,  $p < .01$ , 95% CI [-.362, -.117]).

#### 4.2.3.5 Effect size

According to Cohen's (1988) effect size standards, an effect size of .10 is considered as small, around .30 is medium, and .50 and higher is large. The results of direct effects indicated that strongest effect size was between shame coping and psychological distress

with a medium effect size of .288. According to the results of indirect effects, the largest effect size was of BCEs on psychological distress via emotion regulation dimensions and shame coping and it had a small effect size of -.139. The total effect results showed that the effect size of ACEs and BCEs on psychological distress was similar and small to medium ( $\beta = .226$ ;  $\beta = -.244$ ).

#### 4.3 Summary of the results

In summary, model fit indicated the mediated relationships among ACEs, BCEs and psychological distress via emotion regulation strategies and shame coping style. Shame coping and reappraisal emotion regulation were found as significant mediators for both ACEs and BCEs.

For the proposed path model, path analysis results were not within the acceptable range. Therefore, modifications were made on the proposed model by adding direct effects of reappraisal and suppression emotion regulation strategies on shame coping style. Moreover, direct effects of ACEs and BCEs on psychological distress were included in the modified model. All results of the modified model were in the acceptable range. Moreover, results of the modified model satisfied conditions for perfect fit. The analyses were followed with the investigations of direct, indirect, and total effects. Apart from the direct effect of ACEs on suppression and the direct effect of suppression on psychological distress, all direct effects were found significant. Only indirect effect that was not significant was ACEs on shame coping via reappraisal and suppression. In terms of total effects, both ACEs and BCEs had significant total effects on psychological distress.

Table 11. Path Analysis Results Regarding Individual Indirect Effects

Predictor	Mediator(s)	Dependent variable	$\beta$	<i>B</i>	<i>S.E.</i>	<i>Lower bound</i>	<i>Upper bound</i>	<i>p</i>
ACEs	ER Reappraisal	Psychological distress	.033	.179**	.087	.041	.391	.012
ACEs	ER Suppression	Psychological distress	-.002	-.011	.027	-.092	.027	.429
ACEs	Shame coping	Psychological distress	.052	.264*	.094	.105	.485	.001
ACEs	ER Reappraisal	Shame coping	.018	.303*	.180	.057	.809	.014
ACEs	ER Suppression	Shame coping	-.005	-.087	.187	-.495	.265	.595
BCEs	ER Reappraisal	Psychological distress	-.06	-.298*	.096	-.536	-.142	.001
BCEs	ER Suppression	Psychological distress	-.013	-.067	.047	-.181	.013	.098
BCEs	Shame coping	Psychological distress	-.046	-.223*	.079	-.395	-.086	.001
BCEs	ER Reappraisal	Shame coping	-.032	-.504*	.224	-1.075	-.161	.004
BCEs	ER Suppression	Shame coping	-.036	-.545**	.212	-1.054	-.196	.001
ACEs	ER Reappraisal, Shame coping	Psychological distress	.005	.028**	.018	.004	.079	.014
ACEs	ER Suppression, Shame coping	Psychological distress	.001	-.008	.018	-.047	.027	.576
BCEs	ER Reappraisal, Shame coping	Psychological distress	-.009	-.047**	.024	-.109	-.014	.004
BCEs	ER Suppression, Shame coping	Psychological distress	-.010	-.051*	.022	-.110	-.019	<.001

*Note.* \* $p < .001$ , \*\* $p < .05$ .  $\beta$  = Standardized Regression Weight, *S.E.* = Standard Error, ACEs = Adverse Childhood Experiences, BCEs = Benevolent Childhood Experiences, ER = Emotion regulation.



## CHAPTER 5

### DISCUSSION

#### 5.1 Purpose of the study

The main purpose of this study was to investigate the potential mediating pathways of emotion regulation strategies and shame coping style among both ACEs and BCEs on psychological distress of college students. The first hypothesis was that both shame coping and emotion regulation strategies would mediate the relationship among ACEs and BCEs with psychological distress. Secondly, it was assumed that higher numbers of ACEs would predict decreased use of reappraisal emotion regulation strategy and increased suppression emotion regulation strategy. Thirdly, it was claimed that higher numbers of BCEs would predict increased use of reappraisal emotion regulation strategy and decreased suppression emotion regulation strategy. Fourthly, higher numbers of ACEs would predict higher levels of maladaptive shame coping. Fifth hypothesis was that higher numbers of BCEs would predict lower levels of maladaptive shame coping. Sixth hypothesis was that higher reappraisal emotion regulation strategy would protect against psychological distress. The next hypothesis was greater maladaptive shame coping would increase psychological distress. These hypotheses were examined with a sample of college students who are emerging adults and path analysis was used to test the hypotheses.

## 5.2 Discussion of the findings

This section discusses the study hypotheses and findings. After that, strengths and limitations of the current study are discussed. Then, implications of and future directions for the study are presented.

Hypothesis 1. Both shame coping style and emotion regulation would mediate the relationship between ACEs and BCEs with psychological distress. This hypothesis was partially supported. The model proposed to explore these relationships had to be modified by adding direct relationships between both ACEs and BCEs to psychological distress. Although suppression emotion regulation strategy did not mediate the relationships, reappraisal strategy and shame coping mediated the relationships between both ACEs and BCEs to psychological distress. Contrary to the literature and expectation, ACEs and suppression strategy did not have a direct relationship (Cloitre et al., 2019; McLafferty et al., 2020). There is a limited number of studies exploring the relationship between suppression strategy and psychological distress in the literature and those have contradicting results (Dryman & Heimberg, 2018). However, it was stated that suppression strategy and psychological distress and mental health problems are associated (Baziliansky & Cohen, 2021; Cloitre et al., 2019; McLafferty et al., 2020). Results indicating there is not a direct effect between suppression strategy and psychological distress contradicted to the existing literature. It is important to note that the study stating the significant relationship between suppression strategy and psychological distress investigated in a different population composed of cancer patients (Baziliansky & Cohen, 2021). The difference in target population might indicate that the level of stressful life events or health problems can change the relationship between maladaptive emotion regulation strategy and psychological distress.

The direct effects added to the modified model was rationalized considering the previous literature. ACEs and psychological distress were associated in the literature and studies showed that they are significantly related to each other within the samples of college students (Gündüz et al., 2019; Kaloeti et al., 2019; Karatekin, 2018). BCEs were a relatively new concept and there were scarce sources for its relationship with psychological distress (Doom et al., 2021; Hou et al., 2022). Results of this study were in line with previous ones indicating that there is a significant negative relationship between BCEs and psychological distress of college students (Doom et al., 2021; Hou et al., 2022).

In terms of the total model, the findings of significant direct and indirect effects indicated that emotion regulation strategy and shame coping style mediated the relationships between both ACEs and BCEs, and psychological distress. It can be inferred that, overall childhood experiences mediated with coping and regulation mechanisms influence the individuals' later psychological status.

Hypothesis 2. Higher numbers of ACEs would predict decreased use of reappraisal emotion regulation strategy and increased suppression emotion regulation strategy. The findings regarding to this hypothesis partially aligned with the previous literature (Cloitre et al., 2019; Kalia & Knauft, 2020). Existing literature stated that there is a negative relationship between ACEs and reappraisal strategy, and positive relationship between ACEs and suppression strategy (Cameron et al., 2018; Cloitre et al., 2019; Kalia & Knauft, 2020). Findings in the current study were partially compatible with the previous results. Although there was a negative relationship between ACEs and reappraisal strategy, there was not a significant positive association between ACEs and suppression strategy. Additionally, there was not any previous studies conducting path

analysis to explore the direct effect of ACEs on emotion regulation strategies. Therefore, the absence of correlation and direct effect of ACEs on suppression strategy was a new finding to discuss. There are two factors proposed to explain the difference between the results. Firstly, the previous literature was based on the studies conducted in the USA. As a result, the participants might come from different cultural backgrounds. Some studies stated that cultural differences may affect the individuals' use of emotion regulation strategies (Butler et al., 2007; Huwaë & Schaafsma, 2018; Matsumoto et al., 2008). Because of the lack of previous investigation on the cultural differences of the population from Turkey, there can be cultural differences in terms of utilization of emotion regulation strategies that have not been explored, yet. Another explanation is that gender differences in the utilization of emotion regulation strategies. In the literature, it was stated that males use suppression strategy more than females do (Canli & Karaşar, 2021). Because of the disparity between the number of male and female (77.3%) participants in this study, results may differ from the previous studies.

Hypothesis 3. Higher numbers of BCEs would predict increased use of reappraisal emotion regulation strategy and decreased suppression emotion regulation strategy. The findings of the study supported the hypothesis. Because of the relationships between BCEs and positive psychological outcomes of the BCEs claimed in the literature (Masten, 2014; J. S. Merrick et al., 2019), it was assumed that BCEs would increase the adaptive emotion regulation, which is reappraisal, and decrease maladaptive emotion regulation, which is suppression. Not only the correlations between BCEs and emotion regulation strategies (reappraisal  $r = .314, p < .01$ ; suppression  $r = -.174, p < .01$ ), supported the hypothesis, but also in the path analysis, significant direct effects (reappraisal  $\beta = .250, p < .01$ ; suppression  $\beta = -.187, p < .01$ ) were found. This

study was the first one to investigate and claim the relationships between BCEs and emotion regulation strategies with a sample of emerging adults from Turkey.

Hypothesis 4. Higher numbers of ACEs would predict higher levels of maladaptive shame coping. This hypothesis was supported by the findings of the study. There was a positive correlation between ACEs and maladaptive shame coping ( $r = .291, p < .01$ ). Moreover, according to the results of path analysis, there was a direct effect of ACEs on maladaptive shame coping style ( $\beta = .177, p < .01$ ). In previous studies, it was stated that there was a relationship between childhood experiences with parents and peers, and shame coping style (Sedighimornani et al., 2021). The current study claimed that ACEs predicted the shame coping styles which had not been explored previously. Therefore, it was the first study to present the direct relationship between ACEs and maladaptive shame coping style with a sample from Turkey. ACEs can be claimed as risk factors for maladaptive shame coping and contribute to the psychological issues and distress related to shame experiences during the life course.

Hypothesis 5. Higher numbers of BCEs would predict lower levels of maladaptive shame coping. This hypothesis was supported by the findings of this study. Because of the novel nature of BCEs, it was proposed to explore their relationship with shame coping style. Considering the previous studies stating the relationship between BCEs and positive psychological outcomes, it was assumed that BCEs predict lower levels of maladaptive shame coping. This study was also the first investigation between BCEs and maladaptive shame coping. Results indicated that there was a significant negative correlation between BCEs and maladaptive shame coping ( $r = -.311, p < .01$ ). Also, there was a significant direct effect of BCEs on maladaptive shame coping ( $\beta = -.157, p < .01$ ). In other words, when the number of BCEs increases, maladaptive shame

coping tendency of the individuals decreases. Hence, BCEs may be sources of protection against maladaptive shame coping and support the positive psychological outcomes.

Hypothesis 6. Higher levels of reappraisal emotion regulation strategy would predict lower psychological distress. Results of the study supported this hypothesis. According to the path analysis, there was a direct effect of reappraisal emotion regulation strategy on psychological distress ( $\beta = -.242, p < .01$ ). Additionally, there was a significant negative correlation between reappraisal emotion regulation strategy and psychological distress ( $r = -.378, p < .01$ ). In literature, reappraisal as an adaptive strategy had been positively associated with psychological well-being (Kraiss et al., 2020) and negatively linked with psychological problems and distress (Cludius et al., 2020; Ma & Fang, 2019). In line with the existing literature, results implied that individuals who utilize reappraisal strategy more, have lower levels of psychological distress. Therefore, adaptive emotion regulation strategy may change the level of psychological distress of the individual.

Hypothesis 7. Higher levels of suppression emotion regulation strategy would predict higher psychological distress. This hypothesis was not supported by the findings in the study. Although, there was a significant positive association between suppression strategy and psychological distress ( $r = .168, p < .01$ ), suppression strategy did not have a direct effect on psychological distress ( $\beta = .073, p > .05$ ). In the literature, suppression strategy was stated as negatively related with psychological well-being (Kraiss et al., 2020). Other studies stated that there were contradictory findings in the literature. Studies investigating the relationship between suppression strategy and depression with different samples such as women, cancer patients, and college students stated mixed results of the nature of the relationship among them (Baziliansky & Cohen, 2021;

Cloitre et al., 2019; Dryman & Heimberg, 2018; McLafferty et al., 2020). Additionally, a study stated that the choice of instrument for measuring emotion regulation may affect the relationship between emotion regulation strategy and psychological distress (de France & Hollenstein, 2017). It was claimed that while suppression strategy measured with the Emotion Regulation Questionnaire (ERQ) does not indicate a relationship with depression, but suppression strategy measured with Regulation of Emotion Systems Survey (RESS) has a significant relationship with depression (de France & Hollenstein, 2017). Another explanation for the result can be the discrepancy between the number of males and females in the sample. As mentioned before, in the literature, it was stated that males utilize suppression strategy more than females do (Canli & Karaşar, 2021). Therefore, having fewer males in the sample may affect the results of the path analysis. Additionally, there was not any studies conducted a path analysis to investigate the direct effect of suppression strategy on psychological distress. Hence, this study enlightened the absence of predictor power of the suppression strategy on psychological distress within a college student sample from Turkey.

Hypothesis 8. Greater maladaptive shame coping would increase psychological distress. Results of this study supported this hypothesis. According to the findings, maladaptive shame coping was significantly positively associated with psychological distress ( $r = .434, p < .01$ ). Moreover, maladaptive shame coping was found to be predicting psychological distress ( $\beta = .288, p < .01$ ). In previous studies, maladaptive shame coping and psychological distress was stated as significantly correlated (Capinha et al., 2021; Elison, Pulos, et al., 2006). Findings of the study was aligned with the existing literature. Maladaptive shame coping style adapted by the individual is related

to the psychological status of the individual. It can be speculated that shame coping style influences psychological well-being and distress.

In summary, six of the eight hypotheses were supported by the findings. Results indicated that both ACEs and BCEs were directly related to psychological distress of college students. Moreover, ACEs were indirectly associated with psychological distress of college students via reappraisal emotion regulation strategy and shame coping style. Contrary to expectations, suppression emotion regulation strategy did not mediate the relationship between ACEs and psychological distress of college students. BCEs had an indirect relationship with psychological distress of college students via suppression and reappraisal strategies of emotion regulation and shame coping style. Adverse and benevolent childhood experiences predicted psychological status during emerging adulthood period.

#### 4.3 Strengths of the study

The most important aspect of this study is that it is the first study to investigate the variables of ACEs, BCEs, emotion regulation, shame coping, and psychological distress together. It is essential to note that the BCEs perspective is a new approach to understand the influence of early experiences on psychological status in later life. This study demonstrates the importance and relevance of BCEs in addition to ACEs in an individual's mental health.

Furthermore, shame is generally an overlooked factor in psychological counseling literature. An individual's attitude toward and coping with shame is important and influential for having a thorough understanding of individual's



psychological status. This study brings these perspectives together to interpret the relations between them.

Moreover, emerging adulthood is a period with unique sources of stress (Arnett, 2001; Arnett et al., 2014). This study focuses on a specific group which is college students in the emerging adulthood period and provides new perspectives on their psychological status. This new understanding will help psychological support professionals to intervene with problems experienced by emerging adults and provide support college students for obtaining better outcomes such as psychological well-being and heightened resilience during emerging adulthood.

#### 4.4 Limitations of the study and future directions

There were several sources of limitation in this study. Firstly, the discrepancy in the distribution of genders may influence the results of the study. Secondly, the sample size was relatively small, and it may relate with non-representative results. Thirdly, the source of information used in this study was self-report for all study variables. It may generate biased information, and results may have been affected by it.

For future directions, firstly, studies may take into consideration that gender distribution in the sample should be relatively balanced. Moreover, emotion regulation strategies may be measured with another instrument such as Regulation of Emotion Systems Survey (RESS) to interpret the possible differences caused by the instrument used in this study. Additionally, there may be other sources of information to understand the childhood experiences that the participants may not remember themselves. Thirdly, a qualitative part may be included in the future studies to thoroughly understand the

individuals' early experiences and as well as shame experiences and coping during life course. There were several examples in the literature for qualitative exploration of shame experiences and individuals' approach for coping with shame and those resulted in exploring themes of rage directed to self and others which related to attack self and attack others maladaptive shame coping styles (Sarı & Gençöz, 2016; van Vliet, 2009). Therefore, qualitative design may help to acquire a deeper understanding of shame. In this way, the possible intervention options can be illuminated more. Fourthly, this study utilized a community sample to investigate relationships among variables. Having a special sample such as individuals with high ACEs can yield different results that would contribute to the literature. In addition to that, having a cluster analysis of high and low ACEs can be meaningful to investigate the differences between groups. Because most of the sample of this study came from students with high achieving backgrounds, academic concerns of this sample may differ from the general college student sample. Therefore, future studies may investigate the academic resilience of the college students in relation to shame. Furthermore, promotive factors other than BCEs may be investigated. The role of adaptive shame coping style can be explored as a promotive or protective factor in future studies. Additionally, the effect of social desirability on reporting ACEs and shame can be studied to enlighten the gender differences which have scarce resources in literature. Lastly, shame and shame coping have few sources in the literature. It is important to understand the influence of shame on individuals' lives to understand their needs and assets. Therefore, exploring the stigma around shame and its unique nature is valuable for future studies.

#### 4.5 Implications of the study

Regarding the implications of the study, obtained evidence in the current study about the role of adaptive emotion regulation strategy and shame coping in the relationship between both ACEs and BCEs, and psychological distress enlightened further psychological interventions.

New pathways for psychological distress and new intervention options for psychological support services can be suggested with this newfound model on the roles of emotion regulation and adaptive shame coping.

Firstly, trainings on adaptive emotion regulation and shame coping can be advantageous for reducing psychological distress of college students. Because the focus of psychological counseling is preventive intervention, results of this study are valuable to pinpoint pathways for preventing psychological distress (Morgan & Vera, 2011). Campus wide prevention efforts can be built on adaptive regulation and coping skills of the students. An example for the supportiveness of emotion regulation to the therapeutic process was presented with the utilization of Integrative Training of Emotional Competencies and they stated that change in the emotion regulation skills enhanced the effectiveness of psychotherapy. Additionally, mindfulness-based emotion regulation skills trainings were found to be related to increases in adaptive emotion regulation skills (Enríquez et al., 2017; Wimmer et al., 2019).

Secondly, childhood experiences and levels of regulation and coping skills can be used to understand needs and strengths of the college students. Results of these needs and strength assessments can be the basis of program development for college mental health. Emotion regulation via mindfulness practices improving adaptive regulation

skills promoted well-being and resilience of college students (Finkelstein-Fox et al., 2018; C. Thomas & Zolkoski, 2020).

Thirdly, results shed light on the importance of early experiences. It can be asserted that not only preventing adversity but also boosting benevolence in early childhood has preventive effects on later psychological problems. Therefore, this new understanding can be a backbone for psychological interventions aiming to be preventive.

Fourthly, college counseling services can utilize the knowledge that childhood experiences are related to psychological distress of the students. Exploring childhood experiences and providing intervention for students with high ACEs and low BCEs can be effective. Additionally, the role of shame and related coping styles can be taken into account during psychological intervention processes. Unfortunately, there was a gap in the recent literature of psychological interventions, and there was not any interventions or programs targeting shame coping skills.

Fifthly, these efforts to highlight the importance of ACEs and BCEs can provide awareness for future generations through college students. They can increase the possibility of providing more BCEs to the next generation, as they become parents themselves. This may lead to a generational change.

To sum up, in terms of psychological counseling, it is noteworthy that this study demonstrated new ways of psychological intervention for college students. It is remarkable to learn that there are new ways to intervene with psychological distress via childhood experiences, regulation and coping skills.

## CHAPTER 6

### CONCLUSION

This study has a unique point of view toward the pathways of early experiences and psychological distress in emerging adulthood. In this study, findings suggested that adaptive emotion regulation strategy and shame coping style mediated the relationship between ACEs, BCEs, and psychological distress of college students. However, maladaptive emotion regulation strategy did not have a mediating role in the relationship. Therefore, it can be claimed that this study has mostly reached its primary goal.

This study provided a deeper understanding for psychological counselors to provide preventive interventions to college students. Because of the unique situation of the college students, as being in the emerging adulthood period in life, they have sources of psychological distress (Arnett, 2000; Arnett et al., 2014). Having more ways to intervene to the psychological distress experiences by college students was one of the main goals of this study. Accordingly, results provided the new perspectives, and this study achieved another goal of it.

APPENDIX A  
INFORMED CONSENT FORM (ENGLISH)

**Supporting Institute:** Boğaziçi Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Bölümü  
Rehberlik ve Psikolojik Danışmanlık Anabilim Dalı

**Name of the study:** Üniversite Öğrencilerinin Psikolojik Uyumunda Çocukluk  
Deneyimleri, Duygu Düzenleme ve Utançla Baş Etmenin Rolü

**Project Conductor:** Doç. Dr. Zeynep Hande Sart

**E-mail address:** hande.sart@boun.edu.tr

**Phone:** 0212 359 6902

**Name of the researcher:** İrem Simsar

**E-mail address:** irem.akdin@boun.edu.tr

**Phone:** 0212 359 6833

This research aims to understand the relationship among adverse and benevolent childhood experiences, emotion regulation, shame coping and psychological adjustment of college students. The research is conducted by İrem Simsar, a Master's student in the Guidance and Psychological Counseling Program at Boğaziçi University under the supervision of Assoc. Prof. Z. Hande Sart.

Participation in the study is completely voluntary. You may decide to withdraw from the study at any point. In that case, the information obtained from you will not be used and will be destroyed. The data is collected anonymously and the information that you provide will be kept completely confidential.

If you agree to participate in the study, you will be asked to fill a personal information form and scales. The scales take approximately 10 minutes. Your participation in this study depends completely on your own volition. We do not ask for a fee, and we will not pay you in the end. This study does not involve physical, sociological, legal, or economic risks. Some questions in the study may be triggering. If you need any psychological support during or after your participation to the study, you can contact the following centers.

- İstanbul Büyükşehir Belediyesi Psikolojik Danışma Merkezleri:

<https://saglik.ibb.istanbul/psikolojik-danismanlik-merkezleri-pdm/>

<https://saglik.ibb.istanbul/isadem-pdm-ve-ptm-merkezleri/#toggle-id-2>

- Taksim Eğitim Ve Araştırma Hastanesi Beşiktaş Semt Polikliniği  
Beşiktaş, 0212 227 0245
- Taksim Eğitim Ve Araştırma Hastanesi Levent Semt Polikliniği  
Levent, 0212 268 3545
- Sait Çiftçi Devlet Hastanesi  
Beşiktaş, Yıldız, 0212 335 2400
- Baltalimanı Metin Sabancı Araştırma ve Eğitim Hastanesi  
Baltalimanı, 0212 373 7070
- İstinye Devlet Hastanesi  
İstinye, 0212 335 2400
- Marmara Üniversitesi Tıp Fakültesi Psikiyatri Bölümü  
Marmara Üniversitesi Hastanesi, Koşuyolu 0216 325 0612
- Şişli Etfal Eğitim ve Araştırma Hastanesi  
Şişli Etfal Araştırma Hastanesi, Şişli, 0212 231 2209/1325 [www.sislietfal.gov.tr](http://www.sislietfal.gov.tr)
- Üsküdar Devlet Hastanesi  
Üsküdar, 0216 474 7900
- Üsküdar Devlet Hastanesi Üsküdar Semt Polikliniği  
Halk Cad. Sunar İş Merkezi No:37 Üsküdar 0216 310 7764 – 0216 342 2596

For questions related to this study during and after completing the form and scales, you may contact İrem Simsar (Telephone: 0212 359 68 33) or Assoc. Prof. Z. Hande Sart (Telephone: 0212 359 69 02). About your rights within this study, you may contact The Ethics Committee for Master and PhD Theses in Social Sciences and Humanities.



I understood the scope and requirements of this study and I agree to participate.

## APPENDIX B

### INFORMED CONSENT FORM (TURKISH)

**Araştırmayı destekleyen kurum:** Boğaziçi Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Bölümü Rehberlik ve Psikolojik Danışmanlık Anabilim Dalı

**Araştırmanın adı:** Üniversite Öğrencilerinin Psikolojik Uyumunda Çocukluk Deneyimleri, Duygu Düzenleme ve Utançla Baş Etmenin Rolü

**Proje Yürütücüsü:** Doç. Dr. Zeynep Hande Sart

**E-mail adresi:** hande.sart@boun.edu.tr

**Telefonu:** 0212 359 6902

**Araştırmacının adı:** İrem Simsar

**E-mail adresi:** irem.akdin@boun.edu.tr

**Telefonu:** 0212 359 6833

Sayın katılımcı,

Bu araştırma, üniversite öğrencilerinin çocukluk deneyimleri, duygu düzenleme becerileri, utanç duygusu ile baş edebilme ve psikolojik uyumları arasındaki ilişkiyi incelemek amaçlı yapılmaktadır. Araştırma, Psikolojik Danışmanlık ve Rehberlik Yüksek Lisans Bölümü öğrencisi İrem Simsar tarafından, Doç. Dr. Z. Hande Sart gözetiminde yürütülmektedir.

Çalışmaya katılım gönüllülük esasına dayalı olup, araştırma sırasında istediğiniz zaman araştırmayı sonlandırma hakkına sahipsiniz. Araştırmaya katılımınızı yarıda bırakmanız halinde sizden toplanan veri kullanılmayacaktır. Araştırmayı sonlandırdığınızda verdiğiniz tüm bilgiler imha edilecektir. Veriler anonim olarak toplanmaktadır ve vermiş olduğunuz bilgiler tamamen gizli tutulacaktır. Toplanan veriler Kişisel Verilerin Korunması Kanunu'na uygun olarak toplanıp saklanacaktır.

Araştırmaya katılmayı kabul ettiğiniz takdirde size verilecek olan kişisel bilgi formu ve ölçekleri doldurmanız istenmektedir. Ölçekler ortalama 10 dakika sürmektedir. Çalışmaya katılmanız tamamen isteğe bağlıdır. Sizden ücret talep etmiyoruz ve size herhangi bir ödeme yapmayacağız. Araştırma fiziksel, sosyolojik, hukuki veya ekonomik risk taşımamaktadır. Araştırma kapsamında sorulacak bazı sorular tetikleyici olabilir. Araştırmaya katılım esnasında veya sonrasında psikolojik desteğe ihtiyaç duymanız durumunda ulaşabileceğiniz ücretsiz psikolojik destek merkezlerine aşağıdaki adres ve telefonlardan ulaşabilirsiniz.



- İstanbul Büyükşehir Belediyesi Psikolojik Danışma Merkezleri:  
<https://saglik.ibb.istanbul/psikolojik-danismanlik-merkezleri-pdm/>  
<https://saglik.ibb.istanbul/isadem-pdm-ve-ptm-merkezleri/#toggle-id-2>
- Taksim Eğitim Ve Araştırma Hastanesi Beşiktaş Semt Polikliniği  
Beşiktaş, 0212 227 0245
- Taksim Eğitim Ve Araştırma Hastanesi Levent Semt Polikliniği  
Levent, 0212 268 3545
- Sait Çiftçi Devlet Hastanesi  
Beşiktaş, Yıldız, 0212 335 2400
- Baltalimanı Metin Sabancı Araştırma ve Eğitim Hastanesi  
Baltalimanı, 0212 373 7070
- İstinye Devlet Hastanesi  
İstinye, 0212 335 2400
- Marmara Üniversitesi Tıp Fakültesi Psikiyatri Bölümü  
Marmara Üniversitesi Hastanesi, Koşuyolu 0216 325 0612
- Şişli Etfal Eğitim ve Araştırma Hastanesi  
Şişli Etfal Araştırma Hastanesi, Şişli, 0212 231 2209/1325, [www.sislietfal.gov.tr](http://www.sislietfal.gov.tr)
- Üsküdar Devlet Hastanesi  
Üsküdar, 0 216 474 79 00
- Üsküdar Devlet Hastanesi Üsküdar Semt Polikliniği  
Halk Cad. Sunar İş Merkezi No:37 Üsküdar 0216 310 7764 – 0216 342 2596

Araştırmaya dair bir sorunuz olursa araştırmacı İrem Simsar (Telefon: 0212 359 68 33; e-posta: iremakdin95@gmail.com) veya proje yürütücüsü Doç. Dr. Z. Hande Sart'a (Telefon: 0212 359 69 02) ulaşabilirsiniz. Araştırmayla ilgili haklarınız konusunda "Sosyal ve Beşeri Bilimler Yüksek Lisans ve Doktora Tezleri Etik İnceleme Komisyonu" (SOBETİK) danışabilirsiniz.

☐ Yukarıda yazılanları anladım ve çalışmaya katılmayı kabul ediyorum.

## APPENDIX C

### DEMOGRAPHIC INFORMATION FORM (ENGLISH)

Date of birth:

Gender: Female/Male/Other(please specify)/Prefer not to say

Name of the registered university:

Years have been spent in university:

Is your mother alive? Yes / No

Is your father alive? Yes / No

Is your parents ... Married / Divorced / Separated?

## APPENDIX D

### DEMOGRAPHIC INFORMATION FORM (TURKISH)

Doğum yılınız:

Cinsiyetiniz: Kadın/Erkek/Diğer(belirtiniz)/Belirtmek istemiyorum

Öğrenim gördüğünüz üniversite:

Üniversitede geçirdiğiniz yıl sayısı:

Anneniz: Sağ / Vefat etti

Babanız: Sağ / Vefat etti

Ebeveynleriniz: Birlikte / Boşanmış / Ayrı yaşıyor

## APPENDIX E

### PSYCHOLOGICAL DISTRESS SCALE (ENGLISH)

The following questions ask about how you have been feeling during the **past 30 days**. For each question, please circle the number that best describes how often you had this feeling.

Q1. During that month, how often did you feel ...						
		All of the time	Most of the time	Some of the time	A little of the time	None of the time
a	... tired out for no good reason	1	2	3	4	5
b	...nervous?	1	2	3	4	5
c	...so nervous that nothing could calm you down?	1	2	3	4	5
d	...hopeless?	1	2	3	4	5
e	...restless or fidgety?	1	2	3	4	5
f	...so restless that you could not sit still?	1	2	3	4	5
g	...depressed?	1	2	3	4	5
h	...so depressed that nothing could cheer you up?	1	2	3	4	5
i	...that everything was an effort?	1	2	3	4	5
j	...worthless?	1	2	3	4	5
Q2. The last ten questions asked about feelings that might have occurred during the past 30 days. Taking them altogether, did these feelings occur <u>More often</u> in the past 30 days than is usual for you, <u>about the same</u> as usual, or <u>less often</u> than usual? (If you never have any of these feelings, circle response option "4.")						
More often than usual			About the same as usual	Less often than usual		
A lot	Some	A little	About the same as usual	A little	Some	A lot
1	2	3	4	5	6	7

	<p>Q3. During the past 30 days, how many days out of 30 were you <u>totally unable</u> to work or carry out your normal activities because of these feelings?</p> <p>_____ (Number of days)</p>					
	<p>Q4. Not counting the days you reported in response to Q3, how many days in the past 30 were you able to do only <u>half or less</u> of what you would normally have been able to, because of these feelings?</p> <p>_____ (Number of days)</p>					
	<p>Q5. During the past 30 days, how many times did you see a doctor or other health professional about these feelings?</p> <p>_____ (Number of times)</p>					
	<p>S6. During the past 30 days, how often have physical health problems been the main cause of these feelings?</p>	All of the time	Most of the time	Some of the time	A little of the time	None of the time
		1	2	3	4	5

## APPENDIX F

### PSYCHOLOGICAL DISTRESS SCALE (TURKISH)

Aşağıdaki sorular son 30 gün içinde kendinizi nasıl hissettiğiniz hakkındadır. Lütfen her soruda söz konusu duyguyu hangi sıklıkta hissettiğinizi en iyi açıklayan sayıyı yuvarlak içine alınız.

S1. Bu ay içinde kendinizle ilgili olarak aşağıdakileri ne sıklıkla hissettiniz?						
		Sürekli olarak	Çoğu zaman	Arada sırada	Seyrek olarak	Hiç olmadı
a	...herhangi bir sebep olmadan aşırı yorgunluk	1	2	3	4	5
b	...sinirli	1	2	3	4	5
c	...hiçbir şekilde sakinleşemeyecek kadar sinirli	1	2	3	4	5
d	...umutsuz	1	2	3	4	5
e	...huzursuz veya tedirgin	1	2	3	4	5
f	...yerinde duramayacak kadar huzursuz	1	2	3	4	5
g	...çökkün	1	2	3	4	5
h	...hiçbir şekilde neşelenemeyecek kadar çökkün	1	2	3	4	5
i	...her şeyin çok zor gelmesi	1	2	3	4	5
j	...değersiz	1	2	3	4	5
<p>S2. Yukarıda sorulan 10 soruda, son 30 günde hissetmiş olabileceğiniz duygu durumları sorulmuştur. Tümünü birlikte ele alırsak, bu duygular geçen 30 günde, her zamankinden daha fazla mı, her zamanki gibi mi, yoksa her zamankinden daha az mı ortaya çıktı? (Eğer bu duyguları hiç hissetmediyseniz, seçenek "4"ü yuvarlak içine alınız.)</p>						
Normalden daha sık				Normalden daha seyrek		
Bir hayli	Biraz	Az bir miktar	Her zamanki gibi	Az bir miktar	Biraz	Bir hayli
1	2	3	4	5	6	7

<p>Aşağıdaki sorular, son 30 gün içinde bu duyguların sizi nasıl etkilemiş olabileceği ile ilgilidir. Eğer duygularınız ile ilgili on sorunun hepsine "Hiç olmadı" yanıtını verdiyseniz, bu soruları yanıtlamanıza gerek yoktur.</p>					
<p><b>S3.</b> Son 30 gün boyunca, bu duygular yüzünden hiç çalışmadığınız veya normal faaliyetlerinizi yapamadığınız kaç gün oldu?</p> <p style="text-align: center;"><b>(Gün sayısı)</b></p>					
<p><b>S4. Soru 3'e yanıtladığınız günleri saymazsak,</b> son 30 gün içinde bu duygular yüzünden, normalde yapabildiğiniz şeylerin yarısını veya daha azını yapabildiğiniz kaç gün oldu?</p> <p style="text-align: center;"><b>(Gün sayısı)</b></p>					
<p><b>S5.</b> Son 30 gün içinde bu duygularla ilgili olarak kaç kez doktora ya da diğer sağlık uzmanına gittiniz?</p> <p style="text-align: center;"><b>(Başvuru sayısı)</b></p>					
<p><b>S6.</b> Son 30 gün içinde fiziksel sağlık problemleri ne kadar sıklıkla bu duyguların sebebi olarak ortaya çıktı?</p>	<b>Sürekli olarak</b>	<b>Çoğu zaman</b>	<b>Arada sırada</b>	<b>Seyrek olarak</b>	<b>Hiç olmadı</b>
	1	2	3	4	5



## APPENDIX G

### ADVERSE CHILDHOOD EXPERIENCES SCALE (ENGLISH)

Prior to your 18<sup>th</sup> birthday:

		YES/NO
1	Did a parent or other adult in the household often or very often... Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt?	YES/NO
2	Did a parent or other adult in the household often or very often... Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured?	YES/NO
3	Did an adult or person at least 5 years older than you ever... Touch or fondle you or have you touch their body in a sexual way? or Attempt or actually have oral, anal, or vaginal intercourse with you?	YES/NO
4	Did you often or very often feel that ... No one in your family loved you or thought you were important or special? or Your family didn't look out for each other, feel close to each other, or support each other?	YES/NO
5	Did you often or very often feel that ... You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? or Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?	YES/NO
6	Was a biological parent ever lost to you through divorce, abandonment, or other reason ?	YES/NO
7	7. Was your mother or stepmother: Often or very often pushed, grabbed, slapped, or had something thrown at her? or Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?	YES/NO
8	Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?	YES/NO
9	Was a household member depressed or mentally ill or did a household member attempt suicide?	YES/NO
10	Did a household member go to prison?	YES/NO

## APPENDIX H

### ADVERSE CHILDHOOD EXPERIENCES SCALE (TURKISH)

Siz büyürken, hayatınızın ilk 18 yılında;

		Evet/Hayır
1	Bir ebeveyniniz ya da ev halkından yetişkin biri sıklıkla ya da çok sıklıkla... Size küfür etti mi, sizi hor gördü mü, sizi aşağıladı mı ya da sizi küçümsedi mi? Ya da Sizi fiziksel anlamda incitecek bir şekilde davranıp sizi korkuttu mu?	Evet/Hayır
2	Bir ebeveyniniz ya da ev halkından yetişkin biri sıklıkla ya da çok sıklıkla... Sizi itip tartakladı mı, tokatladı mı ya da size bir şey fırlattı mı? Ya da size hiç iz kalacak ya da yaralanacağınız kadar güçlü vurdu mu?	Evet/Hayır
3	Bir yetişkin ya da sizden en az 5 yaş büyük biri hiç... Size dokundu mu ya da sizi hiç okşadı mı ya da sizden hiç onların bedenine cinsel anlamda dokunmanızı istedi mi? Ya da Sizinle oral, anal ya da vajinal olarak cinsel ilişki yaşadı mı ya da teşebbüs etti mi?	Evet/Hayır
4	Siz sıklıkla ya da çok sıklıkla aşağıdaki gibi hissettiniz mi? Ailenizde kimse sizi sevmiyor ya da sizin önemli ya da özel olduğunuzu düşünmüyor? Ya da Aileniz size göz kulak olmadı, ailenizle yakın hissetmediniz ya da birbirinizi desteklemediniz?	Evet/Hayır
5	Sıklıkla ya da çok sıklıkla aşağıdaki gibi hissettiniz mi? Yeterince yemek yoktu, kirli giysiler giymek zorundaydınız ve sizi koruyacak kimse yoktu? Ya da Aileniz size bakmak için ya da ihtiyacınız olduğunda doktora götürmek için çok sarhoştı ya da kendinde değildi?	Evet/Hayır
6	Ebeveynleriniz hiç ayrıldı mı ya da boşandı mı?	Evet/Hayır
7	Anneniz ya da üvey anneniz: Sıklıkla ya da çok sıklıkla sizi itip tartakladı mı, tokatladı mı ya da size bir şey fırlattı mı? Ya da Bazen, sıklıkla ya da çok sıklıkla tekmeledi mi, dövdü mü, yumrukla ya da daha sert bir şeyle size vurdu mu? Ya da Hiç en az birkaç dakika sürekli bir şekilde size vurdu mu ya da sizi silahla ya da bıçakla tehdit etti mi?	Evet/Hayır
8	İçki problemi olan, alkolik ya da uyuşturucu kullanan biriyle yaşadınız mı?	Evet/Hayır
9	Ev halkından biri depresyonda ya da zihinsel hasta mıydı ya da intihara teşebbüs etti mi?	Evet/Hayır
10	Ev halkından biri hapse girdi mi?	Evet/Hayır

## APPENDIX I

### BENEVOLENT CHILDHOOD EXPERIENCES SCALE (ENGLISH)

When you were growing up, during your first 18 years of life:

1	Did you have at least one caregiver with whom you felt safe?	YES NO
2	Did you have at least one good friend?	YES NO
3	Did you have beliefs that gave you comfort?	YES NO
4	Did you like school?	YES NO
5	Did you have at least one teacher who cared about you?	YES NO
6	Did you have good neighbors?	YES NO
7	Was there an adult (not a parent/caregiver or the person from #1) who could provide you with support or advice?	YES NO
8	Did you have opportunities to have a good time?	YES NO
9	Did you like yourself or feel comfortable with yourself?	YES NO
10	Did you have a predictable home routine, like regular meals and a regular bedtime?	YES NO

## APPENDIX J

### BENEVOLENT CHILDHOOD EXPERIENCES SCALE (TURKISH)

18 yaşıınıza kadar olan yaşamınız boyunca:

1	Kendinizi güvende hissettiren ve temel bakımınızdan sorumlu en az bir kişi var mıydı?	EVET HAYIR
2	En az bir tane yakın arkadaşınız var mıydı?	EVET HAYIR
3	Sizi rahatlatan inançlarınız var mıydı?	EVET HAYIR
4	Okulu sever miydiniz?	EVET HAYIR
5	Sizinle yakından ilgilendiğini düşündüğünüz en az bir öğretmeniniz var mıydı?	EVET HAYIR
6	İyi komşularınız var mıydı?	EVET HAYIR
7	Size destek veren veya gerektiğinde tavsiye alabileceğiniz bir yetişkin (ebeveyn/bakımveren veya 1. soruda belirttiğiniz kişi hariç) var mıydı?	EVET HAYIR
8	Eğlenceli vakit geçirmek için yeterli imkanlarınız var mıydı?	EVET HAYIR
9	Kendinizi sever miydiniz veya kendinizle barışık mıydınız?	EVET HAYIR
10	Düzenli öğün ve düzenli uyku saatleri gibi tahmin edilebilir ya da tutarlı ev kuralları var mıydı?	EVET HAYIR

# APPENDIX K

## EMOTION REGULATION QUESTIONNAIRE (ENGLISH)

		Strongly disagree (1)	(2)	(3)	Neutral (4)	(5)	(6)	Strongly agree (7)
1	I control my emotions by <i>changing the way I think</i> about the situation I'm in.							
2	When I want to feel less <i>negative</i> emotion, I <i>change the way I'm thinking</i> about the situation.							
3	When I want to feel more <i>positive</i> emotion, I <i>change the way I'm thinking</i> about the situation.							
4	When I want to feel more <i>positive</i> emotion (such as joy or amusement), I <i>change what I'm thinking about</i> .							
5	When I want to feel less <i>negative</i> emotion (such as sadness or anger), I <i>change what I'm thinking about</i> .							
6	When I'm faced with a stressful situation, I make myself <i>think about it</i> in a way that helps me stay calm.							
7	I control my emotions by <i>not expressing them</i> .							
8	When I am feeling <i>negative</i> emotions, I make sure not to express them.							
9	I keep my emotions to myself.							
10	When I am feeling <i>positive</i> emotions, I am careful not to express them.							

## APPENDIX L

### EMOTION REGULATION QUESTIONNAIRE (TURKISH)

Aşağıdaki maddeler, kendiniz hakkında ne düşünüp, genel olarak nasıl hissettiğinize ilişkin olarak hazırlanmıştır. Lütfen her bir maddeyi dikkatlice okuyunuz ve kendiniz için en uygun olan cevabı karşısındaki bölmelerden uygun olanını işaretleyerek belirtiniz.

		Hiç Katılmıyorum (1)	(2)	(3)	Kararsızım (4)	(5)	(6)	Tamamen Katılıyorum (7)
1	İçinde bulunduğum duruma göre düşünme şeklini değiştirerek duygularımı kontrol ederim.							
2	Olumsuz duygularımın az olmasını istersem, durumla ilgili düşünme şeklimi değiştiririm.							
3	Olumlu duygularımın fazla olmasını istediğim zaman duruma ilgili düşünme şeklimi değiştiririm.							
4	Olumlu duygularımın fazla olmasını istersem (mutluluk veya eğlence) düşündüğüm şeyi değiştiririm.							
5	Olumsuz duygularımın az olmasını istersem (kötü hissetme veya kızgınlık gibi) düşündüğüm şeyi değiştiririm.							
6	Stresli bir durumla karşılaştığımda, bu durumu sakin kalmamı sağlayacak şekilde düşünmeye çalışırım.							
7	Duygularımı ifade etmeyerek kontrol ederim.							
8	Olumsuz duygular hissettiğimde onları ifade etmediğimden emin olmak isterim.							
9	Duygularımı kendime saklarım.							
10	Olumlu duygular hissettiğimde onları ifade etmemeye dikkat ederim.							

## APPENDIX M

### COMPASS OF SHAME SCALE (ENGLISH)

Directions: Below is a list of statements describing situations you may experience from time to time. Following each situation are four statements describing possible reactions to the situation. Read each statement carefully and circle the number to the left of the item that indicates the frequency with which you find yourself reacting in that way. Use the scale below. Please respond to all four items for each situation.

#### SCALE

1	2	3	4	5
Never	Seldom	Sometimes	Often	Almost always

A. When an activity makes me feel like my strength or skill is inferior:					
1. I act as if it isn't so.	1	2	3	4	5
2. I get mad at myself for not being good enough.	1	2	3	4	5
3. I withdraw from the activity.	1	2	3	4	5
4. I get irritated with other people.	1	2	3	4	5
B. In competitive situations where I compare myself with others:					
5. I criticize myself.	1	2	3	4	5
6. I try not to be noticed.	1	2	3	4	5
7. I feel ill will toward the others.	1	2	3	4	5
8. I exaggerate my accomplishments.	1	2	3	4	5
C. In situations where I feel insecure or doubt myself:					
9. I shrink away from others.	1	2	3	4	5
10. I feel others are to blame for making me feel that way.	1	2	3	4	5
11. I act more confident than I am.	1	2	3	4	5
12. I feel irritated with myself.	1	2	3	4	5
D. At times when I am unhappy with how I look:					
13. I take it out on other people.	1	2	3	4	5
14. I pretend I don't care.	1	2	3	4	5
15. I feel annoyed at myself.	1	2	3	4	5
16. I keep away from other people.	1	2	3	4	5
E. When I make an embarrassing mistake in public:					
17. I hide my embarrassment with a joke.	1	2	3	4	5
18. I feel like kicking myself.	1	2	3	4	5
19. I wish I could become invisible.	1	2	3	4	5
20. I feel annoyed at people for noticing.	1	2	3	4	5
F. When I feel lonely or left out:					
21. I blame myself.	1	2	3	4	5
22. I pull away from others.	1	2	3	4	5
23. I blame other people.	1	2	3	4	5
24. I don't let it show.	1	2	3	4	5

G. When I feel others think poorly of me:					
25. I want to escape their view.	1	2	3	4	5
26. I want to point out their faults.	1	2	3	4	5
27. I deny there is any reason for me to feel bad.	1	2	3	4	5
28. I dwell on my shortcomings.	1	2	3	4	5
H. When I think I have disappointed other people:					
29. I get mad at them for expecting so much from me.	1	2	3	4	5
30. I cover my feelings with a joke.	1	2	3	4	5
31. I get down on myself.	1	2	3	4	5
32. I remove myself from the situation.	1	2	3	4	5
I. When I feel rejected by someone:					
33. I soothe myself with distractions.	1	2	3	4	5
34. I brood over my flaws.	1	2	3	4	5
35. I avoid them.	1	2	3	4	5
36. I get angry with them.	1	2	3	4	5
J. When other people point out my faults:					
37. I feel like I can't do anything right.	1	2	3	4	5
38. I want to run away.	1	2	3	4	5
39. I point out their faults.	1	2	3	4	5
40. I refuse to acknowledge those faults.	1	2	3	4	5
K. When I feel humiliated:					
41. I isolate myself from other people.	1	2	3	4	5
42. I get mad at people for making me feel this way.	1	2	3	4	5
43. I cover up the humiliation by keeping busy.	1	2	3	4	5
44. I get angry with myself.	1	2	3	4	5
L. When I feel guilty:					
45. I push the feeling back on those who make me feel this way.	1	2	3	4	5
46. I disown the feeling.	1	2	3	4	5
47. I put myself down.	1	2	3	4	5
48. I want to disappear.	1	2	3	4	5



## APPENDIX N

### COMPASS OF SHAME SCALE (TURKISH)

Yönergeler: Aşağıda zaman zaman karşılaşılabileceğiniz durumları anlatan cümleler verilmiştir. Her durumun altında, o duruma gösterilen olası tepkileri açıklayan dört madde yer almaktadır. Her bir maddeyi dikkatlice okuyun ve o maddenin yanında yer alan ve sizin o şekilde tepki verme sıklığınızı gösteren rakamı daire içine alarak işaretleyin. Lütfen her durumun altında yer alan dört maddeye de cevap verdiğinizden emin olun.

### ÖLÇEK

1	2	3	4	5
Hiçbir Zaman	Nadiren	Zaman Zaman	Sık sık	Neredeyse Her Zaman

A.Bir işin, gücümü ya da yeteneğimi aştığını hissettiğimde:					
1. Bunun beni rahatsız etmesine izin vermem.	1	2	3	4	5
2. Yeterince iyi olmadığım için kendime kızarım.	1	2	3	4	5
3. O iş ile uğraşmaktan vazgeçerim.	1	2	3	4	5
4. Başkalarına kızarım.	1	2	3	4	5
B.Kendimi başkalarıyla kıyasladığım, rekabete dayanan durumlarda:					
5. Kendimi eleştiririm.	1	2	3	4	5
6. Fark edilmemeye çalışırım.	1	2	3	4	5
7. Diğerlerine karşı kötü duygular beslerim.	1	2	3	4	5
8. Hatalarımı görmezden gelirim.	1	2	3	4	5
C.Kendimden emin olmadığım veya şüphe ettiğim durumlarda:					
9. Diğerlerinden uzak dururum.	1	2	3	4	5
10. Bu durumdan diğerlerini sorumlu tutarım.	1	2	3	4	5
11. Olduğumdan daha emin davranırım.	1	2	3	4	5
12. Kendime kızarım.	1	2	3	4	5
D.Nasıl görüldüğüm ile ilgili mutsuz hissettiğim zamanlarda:					
13. Sinirimi başkalarından çıkarırım.	1	2	3	4	5
14. Umurumda değilmiş gibi davranırım.	1	2	3	4	5
15. Kendimden rahatsızlık duyarım.	1	2	3	4	5
16. Diğer insanlardan uzak dururum.	1	2	3	4	5
E.Toplum içinde beni utandıran bir hata yaptığımda:					
17. Utancımı şaka ile saklarım.	1	2	3	4	5
18. Daha dikkatli olmadığım için kendimi suçlarım.	1	2	3	4	5
19. Keşke fark edilmekten kaçınabilsem.	1	2	3	4	5
20. Beni utandıran her kimse ona kızarım.	1	2	3	4	5

F.Yalnız ya da dışlanmış hissettiğimde:					
21. Kendime yüklenirim.	1	2	3	4	5
22. Diğerlerinden uzaklaşıyorum.	1	2	3	4	5
23. Beni dışladıkları için diğer insanları suçlarım.	1	2	3	4	5
24. Bu hissini görülmesine izin vermem.	1	2	3	4	5
G.Diğerlerinin benim hakkımda olumsuz düşündüğünü hissettiğimde:					
25. Yalnız başıma kalmak isterim.	1	2	3	4	5
26. Onların kusurlarına dikkat çekmek isterim.	1	2	3	4	5
27. Kötü hissetmem için bir neden olduğunu kabul etmem.	1	2	3	4	5
28. Hatalarım yüzünden kendime kızarım.	1	2	3	4	5
H.Diğer insanları hayal kırıklığına uğrattığımı hissettiğimde:					
29. Benden çok fazla şey bekledikleri için onlara kızarım.	1	2	3	4	5
30. Duygularımı şakayla geçiştiririm.	1	2	3	4	5
31. Kendimi aşağılarım.	1	2	3	4	5
32. Kendimi o durumdan uzaklaştırırım.	1	2	3	4	5
I.Biri tarafından reddedildiğimi hissettiğimde:					
33. Dikkat dağınıcı şeylerle kendimi rahatlatırım.	1	2	3	4	5
34. Kusurlarım hakkında tekrar tekrar düşünürüm.	1	2	3	4	5
35. O durumdan kendimi geri çekerim.	1	2	3	4	5
36. O kişiye kızarım.	1	2	3	4	5
J.Diğer insanlar kusurlarıma dikkat çektiğinde:					
37. Kusurlarım olduğu için kendime kızarım.	1	2	3	4	5
38. Küçük düşmüş hissederim.	1	2	3	4	5
39. Ben de onların kusurlarını gösteririm.	1	2	3	4	5
40. Kötü hissetmemeye çalışırım.	1	2	3	4	5
K.Aşağılanmış hissettiğimde:					
41. Kendimi diğer insanlardan uzak tutarım.	1	2	3	4	5
42. Böyle hissetmememe neden oldukları için insanlara kızarım.	1	2	3	4	5
43. Bu hissi kendimi meşgul ederek örterim.	1	2	3	4	5
44. Kendime kızarım.	1	2	3	4	5
L.Suçlu hissettiğimde:					
45. Bu hissi böyle hissetmememe neden olan kişilere yöneltirim.	1	2	3	4	5
46. Bu duyguyu görmezden gelirim.	1	2	3	4	5
47. Kendimi diğerlerinin yanında değersiz hissederim.	1	2	3	4	5
48. Yalnız olmak isterim.	1	2	3	4	5

## APPENDIX O

### ETHICAL PERMISSION FORM

Evrak Tarih ve Sayısı: 24.03.2022-59308

T.C.  
BOĞAZİÇİ ÜNİVERSİTESİ  
SOSYAL VE BEŞERİ BİLİMLER YÜKSEK LİSANS VE DOKTORA TEZLERİ ETİK İNCELEME  
KOMİSYONU  
TOPLANTI KARAR TUTANAĞI

Toplantı Sayısı : 29  
Toplantı Tarihi : 24.03.2022  
Toplantı Saati : 10:00  
Toplantı Yeri : Zoom Sanal Toplantı  
Bulunanlar : Prof. Dr. Ebru Kaya, Dr. Öğr. Üyesi Yasemin Sohtorik İlkmen  
Bulunmayanlar :

İrem Simsar  
Eğitim Bilimleri

Sayın Araştırmacı,  
"The Role of Emotion Regulation and Shame Coping in The Relationship between Adverse and Benevolent Childhood Experiences and Psychological Adjustment of College Students" başlıklı projeniz ile ilgili olarak yaptığımız SBB-EAK 2022/18 sayılı başvuru komisyonumuz tarafından 24 Mart 2022 tarihli toplantıda incelenmiş ve uygun bulunmuştur.

Bu karar tüm üyelerin toplantıya çevrimiçi olarak katılımı ve oybirliği ile alınmıştır. COVID-19 önlemleri kapsamında kurul üyelerinden ıslak imza alınmadığı için bu onay mektubu üye ve raportör olarak Yasemin Sohtorik İlkmen tarafından bütün üyeler adına e-imzalanmıştır.

Saygılarımızla, bilgilerinizi rica ederiz.

Dr. Öğr. Üyesi Yasemin  
SOHTORİK İLKMEN  
ÜYE

e-imzalıdır  
Dr. Öğr. Üyesi Yasemin Sohtorik  
İlkmen  
Öğretim Üyesi  
Raportör

SOBETİK 29 24.03.2022

**Bu belge, güvenli elektronik imza ile imzalanmıştır.**

## REFERENCES

- Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87(1), 49–74. <https://doi.org/10.1037/0021-843X.87.1.49>
- Afifi, T. O., Mather, A., Boman, J., Fleisher, W., Enns, M. W., MacMillan, H., & Sareen, J. (2011). Childhood adversity and personality disorders: Results from a nationally representative population-based study. *Journal of Psychiatric Research*, 45(6), 814–822. <https://doi.org/10.1016/j.jpsychires.2010.11.008>
- Akıncı, İ., & Cesur-Altıntaş, M. (2020). Psychometric properties of Turkish Compass of Shame Scale. *Psikoloji Çalışmaları / Studies in Psychology*, 361–383. <https://doi.org/10.26650/sp2019-0053>
- Altun, Y., Özen, M., & Kuloğlu, M. M. (2019). Turkish adaptation of Kessler Psychological Distress Scale: Validity and reliability study. *Anadolu Psikiyatri Dergisi*, 21, 23–31. <https://doi.org/10.5455/apd.12801>
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., Dube, S. R., & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. *European Archives of Psychiatry and Clinical Neuroscience*, 256(3), 174–186. <https://doi.org/10.1007/s00406-005-0624-4>
- Andrews, B., Qian, M., & Valentine, J. D. (2002). Predicting depressive symptoms with a new measure of shame: The Experience of Shame Scale. *British Journal of Clinical Psychology*, 41(1), 29–42. <https://doi.org/10.1348/014466502163778>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Arnett, J. J., Žukauskiene, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18-29 years: Implications for mental health. *The Lancet Psychiatry*, 1(7), 569–576. [https://doi.org/10.1016/S2215-0366\(14\)00080-7](https://doi.org/10.1016/S2215-0366(14)00080-7)
- Auerbach, R. P., Alonso, J., Axinn, W. G., Cuijpers, P., Ebert, D. D., Green, J. G., Hwang, I., Kessler, R. C., Liu, H., Mortier, P., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Aguilar-Gaxiola, S., Al-Hamzawi, A., Andrade, L. H., Benjet, C., Caldas-De-Almeida, J. M., Demyttenaere, K., ... Bruffaerts, R. (2016). Mental disorders among college students in the World Health Organization World Mental Health Surveys. *Psychological Medicine*, 46(14), 2955–2970. <https://doi.org/10.1017/S0033291716001665>

- Baziliansky, S., & Cohen, M. (2021). Emotion regulation and psychological distress in cancer survivors: A systematic review and meta-analysis. *Stress and Health*, 37(1), 3–18. <https://doi.org/10.1002/smi.2972>
- Berking, M., Wupperman, P., Reichardt, A., Pejic, T., Dippel, A., & Znoj, H. (2008). Emotion-regulation skills as a treatment target in psychotherapy. *Behaviour Research and Therapy*, 46(11), 1230–1237. <https://doi.org/10.1016/j.brat.2008.08.005>
- Berzoff, J., Flanagan, L. M., & Hertz, P. (Eds.). (2022). *Inside out and outside in: Psychodynamic clinical theory and psychopathology in contemporary multicultural contexts* (5th ed.). Rowman & Littlefield.
- Bethell, C., Jones, J., Gombojav, N., Linkenbach, J., & Sege, R. (2019). Positive childhood experiences and adult mental and relational health in a statewide sample: Associations across adverse childhood experiences levels. *JAMA Pediatrics*, 173(11), 1–10. <https://doi.org/10.1001/jamapediatrics.2019.3007>
- Black, R. S. A., Curran, D., & Dyer, K. F. W. (2013). The impact of shame on the therapeutic alliance and intimate relationships. *Journal of Clinical Psychology*, 69(6), 646–654. <https://doi.org/10.1002/jclp.21959>
- Boullier, M., & Blair, M. (2018). Adverse childhood experiences. *Paediatrics and Child Health*, 28(3), 132–137. <https://doi.org/10.1016/j.paed.2017.12.008>
- Brown, B. (2006). Shame resilience theory: A grounded theory study on women and shame. *Families in Society*, 87(1), 43–52. <https://doi.org/10.1606/1044-3894.3483>
- Butler, E. A., Lee, T. L., & Gross, J. J. (2007). Emotion regulation and culture: Are the social consequences of emotion suppression culture-specific? *Emotion*, 7(1), 30–48. <https://doi.org/10.1037/1528-3542.7.1.30>
- Cameron, L. D., Carroll, P., & Hamilton, W. K. (2018). Evaluation of an intervention promoting emotion regulation skills for adults with persisting distress due to adverse childhood experiences. *Child Abuse and Neglect*, 79, 423–433. <https://doi.org/10.1016/j.chiabu.2018.03.002>
- Canli, D., & Karaşar, B. (2021). Health anxiety and emotion regulation during the period of covid-19 outbreak in turkey. *Psychiatria Danubina*, 32(3–4), 513–520. <https://doi.org/10.24869/PSYD.2020.513>
- Capinha, M., Rijo, D., Matos, M., & Pereira, M. (2021). The Compass of Shame Scale: Dimensionality and gender measurement invariance in a Portuguese sample. *Journal of Personality Assessment*, 103(6), 807–817. <https://doi.org/10.1080/00223891.2020.1866587>

- Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders*, 82(2), 217–225. <https://doi.org/10.1016/j.jad.2003.12.013>
- Cicchetti, D., Ganiban, J., & Barnett, D. (2010). Contributions from the study of high-risk populations to understanding the development of emotion regulation. In J. Garber & K. A. Dodge (Eds.), *The development of emotion regulation and dysregulation* (pp. 15–48). Cambridge University Press. <https://doi.org/10.1017/cbo9780511663963.003>
- Clark, C., Caldwell, T., Power, C., & Stansfeld, S. A. (2010). Does the influence of childhood adversity on psychopathology persist across the lifecourse? A 45-year prospective epidemiologic study. *Annals of Epidemiology*, 20(5), 385–394. <https://doi.org/10.1016/j.annepidem.2010.02.008>
- Cloitre, M., Khan, C., Mackintosh, M. A., Garvert, D. W., Henn-Haase, C. M., Falvey, E. C., & Saito, J. (2019). Emotion regulation mediates the relationship between ACEs and physical and mental health. *Psychological Trauma: Theory, Research, Practice, and Policy*, 11(1), 82–89. <https://doi.org/10.1037/tra0000374>
- Cludius, B., Mennin, D., & Ehring, T. (2020). Emotion regulation as a transdiagnostic process. *Emotion*, 20(1), 37–42. <https://doi.org/10.1037/emo0000646.supp>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cole, P. M., & Hollenstein, T. (2018). *Emotion Regulation: A Matter of Time* (P. M. Cole & T. Hollenstein, Eds.). Routledge.
- Conley, C. S., Shapiro, J. B., Huguenel, B. M., & Kirsch, A. C. (2020). Navigating the college years: Developmental trajectories and gender differences in psychological functioning, cognitive-affective strategies, and social well-being. *Emerging Adulthood*, 8(2), 103–117. <https://doi.org/10.1177/2167696818791603>
- Crandall, A. A., Miller, J. R., Cheung, A., Novilla, L. K., Glade, R., Novilla, M. L. B., Magnusson, B. M., Leavitt, B. L., Barnes, M. D., & Hanson, C. L. (2019). ACEs and counter-ACEs: How positive and negative childhood experiences influence adult health. *Child Abuse and Neglect*, 96(July), 104089. <https://doi.org/10.1016/j.chiabu.2019.104089>
- Crouch, E., Radcliff, E., Strompolis, M., & Srivastav, A. (2019). Safe, stable, and nurtured: Protective factors against poor physical and mental health outcomes following exposure to adverse childhood experiences (ACEs). *Journal of Child and Adolescent Trauma*, 12(2), 165–173. <https://doi.org/10.1007/s40653-018-0217-9>

- De France, K., & Hollenstein, T. (2017). Assessing emotion regulation repertoires: The regulation of emotion systems survey. *Personality and Individual Differences*, 119, 204–215. <https://doi.org/10.1016/j.paid.2017.07.018>
- Doom, J. R., Seok, D., Narayan, A. J., & Fox, K. R. (2021). Adverse and benevolent childhood experiences predict mental health during the COVID-19 pandemic. *Adversity and Resilience Science*, 2(3), 193–204. <https://doi.org/10.1007/s42844-021-00038-6>
- Dryman, M. T., & Heimberg, R. G. (2018). Emotion regulation in social anxiety and depression: a systematic review of expressive suppression and cognitive reappraisal. *Clinical Psychology Review*, 65, 17–42. <https://doi.org/10.1016/j.cpr.2018.07.004>
- Eldeleklioğlu, J., & Eroğlu, Y. (2015). A Turkish adaptation of the Emotion Regulation Questionnaire. *International Journal of Human Sciences*, 12(1), 1157. <https://doi.org/10.14687/ijhs.v12i1.3144>
- Elison, J., Lennon, R., Pulos, S., & Dickerson, S. (2006). Investigating the compass of shame: The development of the Compass of Shame Scale. *Social Behavior and Personality*, 34(3), 221–238. <https://doi.org/10.2224/sbp.2006.34.3.221>
- Elison, J., Pulos, S., & Lennon, R. (2006). Shame-focused coping: An empirical study of the Compass of Shame. *Social Behavior and Personality*, 34(2), 161–168.
- Enríquez, H., Ramos, N., & Esparza, O. (2017). International Journal of Psychology and Psychological Therapy. *International Journal of Psychology and Psychological Therapy*, 17(1), 39–48. <http://www.redalyc.org/articulo.oa?id=56049624002>
- Espeleta, H. C., Brett, E. I., Ridings, L. E., Leavens, E. L. S., & Mullins, L. L. (2018). Childhood adversity and adult health-risk behaviors: Examining the roles of emotion dysregulation and urgency. *Child Abuse and Neglect*, 82(May), 92–101. <https://doi.org/10.1016/j.chiabu.2018.05.027>
- Fassaert, T., de Wit, M. A. S., Tuinebreijer, W. C., Wouters, H., Verhoeff, A. P., Beekman, A. T. F., & Dekker, J. (2009). Psychometric properties of an interviewer-administered version of the Kessler Psychological Distress scale (K10) among Dutch, Moroccan and Turkish respondents. *International Journal of Methods in Psychiatric Research*, 18(3), 159–168. <https://doi.org/10.1002/mpr.288>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & 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. [https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)

- Finkelstein-Fox, L., Park, C. L., & Riley, K. E. (2018). Mindfulness and emotion regulation: promoting well-being during the transition to college. *Anxiety, Stress and Coping*, 31(6), 639–653. <https://doi.org/10.1080/10615806.2018.1518635>
- Fraiberg, S., Adelson, E., & Shapiro, V. (1975). Ghosts in the nursery: A psychoanalytic approach to the problems of impaired infant-mother relationships. *Journal of the American Academy of Child Psychiatry*, 14(3), 387–421. [https://doi.org/10.1016/S0002-7138\(09\)61442-4](https://doi.org/10.1016/S0002-7138(09)61442-4)
- Garcia, O. F., Fuentes, M. C., Gracia, E., Serra, E., & Garcia, F. (2020). Parenting warmth and strictness across three generations: Parenting styles and psychosocial adjustment. *International Journal of Environmental Research and Public Health*, 17(20), 1–18. <https://doi.org/10.3390/ijerph17207487>
- Gore, F. M., Bloem, P. J. N., Patton, G. C., Ferguson, J., Joseph, V., Coffey, C., Sawyer, S. M., & Mathers, C. D. (2011). Global burden of disease in young people aged 10–24 years: A systematic analysis. *The Lancet*, 377(9783), 2093–2102. [https://doi.org/10.1016/S0140-6736\(11\)60512-6](https://doi.org/10.1016/S0140-6736(11)60512-6)
- Gratz, K. L., Weiss, N. H., & Tull, M. T. (2015). Examining emotion regulation as an outcome, mechanism, or target of psychological treatments. *Current Opinion in Psychology*, 1(3), 85–90. <https://doi.org/10.1016/j.copsyc.2015.02.010>Examining
- Graves, S. B., & Larkin, E. (2006). Lessons from Erikson: A look at autonomy across the lifespan. *Journal of Intergenerational Relationships*, 4(2), 61–71. [https://doi.org/10.1300/J194v04n02\\_05](https://doi.org/10.1300/J194v04n02_05)
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271–299. <https://doi.org/10.1037/1089-2680.2.3.271>
- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, 39, 281–291. <https://doi.org/10.1002/9780470177334.ch3>
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. <https://doi.org/10.1037/0022-3514.85.2.348>
- Gunay-Oge, R., Pehlivan, F. Z., & Isikli, S. (2020a). The effect of positive childhood experiences on adult personality psychopathology. *Personality and Individual Differences*, 158, 109862. <https://doi.org/10.1016/j.paid.2020.109862>
- Gunay-Oge, R., Pehlivan, F. Z., & Isikli, S. (2020b). Validity and reliability of the Benevolent Childhood Experiences (BCEs) Scale in Turkish. *Dusunen Adam*, 33(2), 146–154. <https://doi.org/10.14744/DAJPNS.2020.00074>



- Gündüz, A., Gündoğmuş, I., Engin, B., İşler, A., Sertçelik, S., & Yaşar, A. (2019). Effects of adverse childhood events over metacognitions, rumination, depression and worry in healthy university students. *Annals of Medical Research*, 26(7), 1394–1401. <https://doi.org/10.5455/annalsmedres.2019.05.269>
- Gündüz, A., Yaşar, A. B., Gündoğmuş, İ., Savran, C., & Konuk, E. (2018). Adverse childhood events Turkish form: Validity and reliability study. *Anadolu Psikiyatri Dergisi*, 19(S1), 68–75. <https://doi.org/10.5455/apd.294158>
- Hanson, C. L., Magnusson, B. M., Crandall, A. A., Barnes, M. D., McFarland, E., & Smith, M. (2022). Life experience pathways to college student emotional and mental health: A structural equation model. *Journal of American College Health*, 1–8. <https://doi.org/10.1080/07448481.2022.2058328>
- Hartley, M. T. (2010). Increasing resilience: Strategies for reducing dropout rates for college students with psychiatric disabilities. *American Journal of Psychiatric Rehabilitation*, 13(4), 295–315. <https://doi.org/10.1080/15487768.2010.523372>
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420. <https://doi.org/10.1080/03637750903310360>
- Heim, C., Heit, S., Wilcox, M., Bonsall, R., Miller, A. H., Nemeroff, C. B., & Newport, D. J. (2000). Pituitary-adrenal and automatic responses to stress in women after sexual and physical abuse in childhood. *Journal of the American Medical Association*, 284(5), 592–597.
- Heim, C., Shugart, M., Craighead, W. E., & Nemeroff, C. B. (2010). Neurobiological and psychiatric consequences of child abuse and neglect. *Developmental Psychobiology*, 52(7), 671–690. <https://doi.org/10.1002/dev.20494>
- Herrman, H., Saxena, S., & Moodie, R. (2004). *Promoting mental health: concepts, emerging evidence, practice (Summary Report)*. <https://doi.org/10.5840/ncbq201616462>
- Hou, H., Zhang, C., Tang, J., Wang, J., Xu, J., Zhou, Q., Yan, W., Gao, X., & Wang, W. (2022). Childhood experiences and psychological distress: Can benevolent childhood experiences counteract the negative effects of adverse childhood experiences? *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.800871>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>

- Husky, M. M., Sadikova, E., Lee, S., Alonso, J., Auerbach, R. P., Bantjes, J., Bruffaerts, R., Cuijpers, P., Ebert, D. D., Garcia, R. G., Hasking, P., Mak, A., McLafferty, M., Sampson, N. A., Stein, D. J., & Kessler, R. C. (2022). Childhood adversities and mental disorders in first-year college students: results from the World Mental Health International College Student Initiative. *Psychological Medicine*, 1–11. <https://doi.org/10.1017/s0033291721004980>
- Huwaë, S., & Schaafsma, J. (2018). Cross-cultural differences in emotion suppression in everyday interactions. *International Journal of Psychology*, 53(3), 176–183. <https://doi.org/10.1002/ijop.12283>
- Jones, P. J., Park, S. Y., & Lefevor, G. T. (2018). Contemporary college student anxiety: The role of academic distress, financial stress, and support. *Journal of College Counseling*, 21(3), 252–264. <https://doi.org/10.1002/jocc.12107>
- Kalia, V., & Knauff, K. (2020). Emotion regulation strategies modulate the effect of adverse childhood experiences on perceived chronic stress with implications for cognitive flexibility. *PLoS One*, 15(6), 1–18. <https://doi.org/10.1371/journal.pone.0235412>
- Kaloeti, D. V. S., Rahmandani, A., Sakti, H., Salma, S., Suparno, S., & Hanafi, S. (2019). Effect of childhood adversity experiences, psychological distress, and resilience on depressive symptoms among Indonesian university students. *International Journal of Adolescence and Youth*, 24(2), 177–184. <https://doi.org/10.1080/02673843.2018.1485584>
- Karatekin, C. (2018). Adverse childhood experiences (ACEs), stress and mental health in college students. *Stress and Health*, 34(1), 36–45. <https://doi.org/10.1002/smi.2761>
- Karatekin, C., & Ahluwalia, R. (2021). What do undergraduates with high levels of childhood adversity want to cope with stress? *Journal of Clinical Psychology*, 77(1), 211–240. <https://doi.org/10.1002/jclp.23022>
- Karyotaki, E., Cuijpers, P., Albor, Y., Alonso, J., Auerbach, R. P., Bantjes, J., Bruffaerts, R., Ebert, D. D., Hasking, P., Kiekens, G., Lee, S., McLafferty, M., Mak, A., Mortier, P., Sampson, N. A., Stein, D. J., Vilagut, G., & Kessler, R. C. (2020). Sources of stress and their associations with mental disorders among college students: Results of the World Health Organization World Mental Health Surveys International College Student Initiative. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01759>
- Kessler, R. C., Aguilar-Gaxiola, S., Alonso, J., Chatterji, S., Lee, S., Ormel, J., Üstün, T. B., & Wang, P. S. (2009). The global burden of mental disorders: An update from the WHO World Mental Health (WMH) surveys. *Epidemiology and Psychiatric Sciences*, 118(1), 23–33. <https://doi.org/10.1017/S1121189X00001421>

- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S.-L. T., Walters, E. E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32, 959–976.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 593–602.
- Kline, P. (2014). *An easy guide to factor analysis*. Routledge.
- Kline, R. B. (2016). *Principles and practices of structural equation modelling* (4th ed.). Guilford Publications.
- Kraiss, J. T., ten Klooster, P. M., Moskowitz, J. T., & Bohlmeijer, E. T. (2020). The relationship between emotion regulation and well-being in patients with mental disorders: A meta-analysis. *Comprehensive Psychiatry*, 102. <https://doi.org/10.1016/j.comppsy.2020.152189>
- Krishnamoorthy, G., Davis, P., Donovan, A. O., Mcdermott, B., & Mullens, A. (2021). Through benevolent eyes: The differential efficacy of perspective taking and cognitive reappraisal on the regulation of shame. *International Journal of Cognitive Therapy*, 14, 263–288.
- Kuo, J. R., Khoury, J. E., Metcalfe, R., Fitzpatrick, S., & Goodwill, A. (2015). An examination of the relationship between childhood emotional abuse and borderline personality disorder features: The role of difficulties with emotion regulation. *Child Abuse and Neglect*, 39, 147–155. <https://doi.org/10.1016/j.chiabu.2014.08.008>
- Lieberman, A. F. (2007). Ghosts and angels: Intergenerational patterns in the transmission and treatment of the traumatic sequelae of domestic violence. *Infant Mental Health Journal*, 28(4), 422–439. <https://doi.org/10.1002/imhj.20145>
- Lieberman, A. F., Padrón, E., van Horn, P., & Harris, W. W. (2005). Angels in the nursery: The intergenerational transmission of benevolent parental influences. *Infant Mental Health Journal*, 26(6), 504–520. <https://doi.org/10.1002/imhj.20071>
- Ma, Y., & Fang, S. (2019). Adolescents' mindfulness and psychological distress: The mediating role of emotion regulation. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.01358>
- Mahtani, S., Melvin, G. A., & Hasking, P. (2018). Shame proneness, shame coping, and functions of nonsuicidal self-injury (NSSI) among emerging adults: A developmental analysis. *Emerging Adulthood*, 6(3), 159–171. <https://doi.org/10.1177/2167696817711350>

- Manyema, M., Norris, S. A., & Richter, L. M. (2018). Stress begets stress: The association of adverse childhood experiences with psychological distress in the presence of adult life stress. *BMC Public Health*, *18*(1), 1–12. <https://doi.org/10.1186/s12889-018-5767-0>
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, *56*(3), 227–238. <https://doi.org/10.1037/0003-066X.56.3.227>
- Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development*, *85*(1), 6–20. <https://doi.org/10.1111/cdev.12205>
- Masten, A. S. (2018). Resilience Theory and Research on Children and Families: Past, Present, and Promise. *Journal of Family Theory and Review*, *10*(1), 12–31. <https://doi.org/10.1111/jftr.12255>
- Masten, A. S., & Barnes, A. (2018). Resilience in children: Developmental perspectives. *Children*, *5*(7), 98. <https://doi.org/10.3390/children5070098>
- Matsumoto, D., Yoo, S. H., Nakagawa, S., Alexandre, J., Altarriba, J., Anguas-Wong, A. M., Arriola, M., Bauer, L. M., Bond, M. H., Cabecinhas, R., Chae, J., Comunian, A. L., DeGere, D. N., de Melo Garcia Bley, L., Fok, H. K., Friedlmeier, W., Garcia, F. M., Ghosh, A., Granskaya, J. v., ... Zengeya, A. (2008). Culture, emotion regulation, and adjustment. *Journal of Personality and Social Psychology*, *94*(6), 925–937. <https://doi.org/10.1037/0022-3514.94.6.925>
- McGavock, L., & Spratt, T. (2014). Prevalence of adverse childhood experiences in a university population: Associations with use of social services. *British Journal of Social Work*, *44*(3), 657–674. <https://doi.org/10.1093/bjsw/bcs127>
- McLafferty, M., Bunting, B. P., Armour, C., Lapsley, C., Ennis, E., Murray, E., & O'Neill, S. M. (2020). The mediating role of emotion regulation strategies on psychopathology and suicidal behaviour following negative childhood experiences. *Children and Youth Services Review*, *116*, 105212. <https://doi.org/10.1016/j.childyouth.2020.105212>
- Merians, A. N., Baker, M. R., Frazier, P., & Lust, K. (2019). Outcomes related to adverse childhood experiences in college students: Comparing latent class analysis and cumulative risk. *Child Abuse and Neglect*, *87*, 51–64. <https://doi.org/10.1016/j.chiabu.2018.07.020>
- Merrick, J. S., & Narayan, A. J. (2020). Assessment and screening of positive childhood experiences along with childhood adversity in research, practice, and policy. *Journal of Children and Poverty*, *26*(2), 269–281. <https://doi.org/10.1080/10796126.2020.1799338>

- Merrick, J. S., Narayan, A. J., Atzl, V. M., Harris, W. W., & Lieberman, A. F. (2020). Type versus timing of adverse and benevolent childhood experiences for pregnant women's psychological and reproductive health. *Children and Youth Services Review, 114*, 105056. <https://doi.org/10.1016/j.chidyouth.2020.105056>
- Merrick, J. S., Narayan, A. J., DePasquale, C. E., & Masten, A. S. (2019). Benevolent Childhood Experiences (BCEs) in homeless parents: A validation and replication study. *Journal of Family Psychology, 33*(4), 493–498. <https://doi.org/10.1037/fam0000521>
- Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., & Grogan-Kaylor, A. (2017). Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse and Neglect, 69*, 10–19. <https://doi.org/10.1016/j.chiabu.2017.03.016>
- Mersky, J. P., Topitzes, J., & Reynolds, A. J. (2013). Impacts of adverse childhood experiences on health, mental health, and substance use in early adulthood: A cohort study of an urban, minority sample in the U.S. *Child Abuse and Neglect, 37*(11), 917–925. <https://doi.org/10.1016/j.chiabu.2013.07.011>
- Miles, J. N. V., & Shevlin, M. E. (1998). Multiple software review: Drawing path diagrams. In *Structural Equation Modeling* (Vol. 5, Issue 1, pp. 95–103). <https://doi.org/10.1080/10705519809540092>
- Morelen, D., Shaffer, A., & Suveg, C. (2016). Maternal emotion regulation: Links to emotion parenting and child emotion regulation. *Journal of Family Issues, 37*(13), 1891–1916. <https://doi.org/10.1177/0192513X14546720>
- Murray, J. L., & Arnett, J. J. (2018). *Emerging adulthood and higher education*. Routledge. <https://doi.org/10.4324/9781315623405>
- Narayan, A. J., Atzl, V. M., Merrick, J. S., Harris, W. W., & Lieberman, A. F. (2020). Developmental origins of ghosts and angels in the nursery: Adverse and benevolent childhood experiences. *Adversity and Resilience Science, 1*, 121–134. <https://doi.org/10.1007/s42844-020-00008-4>
- Narayan, A. J., Ippen, C. G., Harris, W. W., & Lieberman, A. F. (2017). Assessing angels in the nursery: A pilot study of childhood memories of benevolent caregiving as protective influences. *Infant Mental Health Journal, 38*(4), 461–474. <https://doi.org/10.1002/imhj.21653>
- Narayan, A. J., Rivera, L. M., Bernstein, R. E., Harris, W. W., & Lieberman, A. F. (2018). Positive childhood experiences predict less psychopathology and stress in pregnant women with childhood adversity: A pilot study of the benevolent childhood experiences (BCEs) scale. *Child Abuse and Neglect, 78*(May 2017), 19–30. <https://doi.org/10.1016/j.chiabu.2017.09.022>

- Nathanson, D. L. (1994). *Shame and pride: Affect, sex, and the birth of the self*. W. W. Norton & Company.
- Odacı, H., & Çelik, Ç. B. (2020). The role of traumatic childhood experiences in predicting a disposition to risk-taking and aggression in Turkish university students. *Journal of Interpersonal Violence*, 35(9–10), 1998–2011. <https://doi.org/10.1177/0886260517696862>
- Oschner, K. N., & Gross, J. J. (2004). *Handbook of self-regulation: Research, theory, and applications* (R. F. Baumeister & K. D. Vohs, Eds.). Guilford Publications.
- Osofsky, J. D., Osofsky, H. J., Frazer, A. L., Fields-Olivieri, M. A., Many, M., Selby, M., Holman, S., & Conrad, E. (2021). The importance of adverse childhood experiences during the perinatal period. *The American Psychologist*, 76(2), 350–363. <https://doi.org/10.1037/amp0000770>
- Panisch, L. S., LaBrenz, C. A., Lawson, J., Gerlach, B., Tennant, P. S., Nulu, S., & Faulkner, M. (2020). Relationships between adverse childhood experiences and protective factors among parents at-risk for child maltreatment. *Children and Youth Services Review*, 110, 104816. <https://doi.org/10.1016/j.childyouth.2020.104816>
- Park, C. L., Edmondson, D., & Lee, J. (2012). Development of self-regulation abilities as predictors of psychological adjustment across the first year of college. *Journal of Adult Development*, 19(1), 40–49. <https://doi.org/10.1007/s10804-011-9133-z>
- Pasha-Zaidi, N., Afari, E., Urganci, B., Sevi, B., & Durham, J. (2020). Investigating the relationship between adverse childhood experiences (ACEs) and resilience: A study of undergraduate students in Turkey. *Journal of Aggression, Maltreatment and Trauma*, 29(10), 1204–1221. <https://doi.org/10.1080/10926771.2020.1725212>
- Peltz, J. S., Bodenlos, J. S., Kingery, J. N., & Rogge, R. D. (2021). The role of financial strain in college students' work hours, sleep, and mental health. *Journal of American College Health*, 69(6), 577–584. <https://doi.org/10.1080/07448481.2019.1705306>
- Price Tangney, J., & Dearing, R. L. (2004). *Shame and Guilt*. The Guilford Press.
- Prosek, E. A., Wei, Q., Scoffone, C. M., Gallardo, D., & Giordano, A. L. (2022). Guilt, shame, and empathy as predictors of coping engagement among United States college students. *International Journal for the Advancement of Counselling*, 44(1), 64–78. <https://doi.org/10.1007/s10447-021-09458-6>
- Raykov, Tenko., & Marcoulides, G. A. (2008). *An introduction to applied multivariate analysis*. Routledge.

- Richardson, T., Elliott, P., Roberts, R., & Jansen, M. (2017). A longitudinal study of financial difficulties and mental health in a national sample of British undergraduate students. *Community Mental Health Journal*, 53(3), 344–352. <https://doi.org/10.1007/s10597-016-0052-0>
- Rothbart, M. K., Sheese, B. E., Rueda, M. R., & Posner, M. I. (2011). Developing mechanisms of self-regulation in early life. *Emotion Review*, 3(2), 207–213. <https://doi.org/10.1177/1754073910387943>
- Rovi, S., Chen, P. H., & Johnson, M. S. (2004). The economic burden of hospitalizations associated with child abuse and neglect. *American Journal of Public Health*, 94(4), 586–590. <https://doi.org/10.2105/AJPH.94.4.586>
- Sameroff, A. J. (2000). Developmental systems and psychopathology. *Development and Psychopathology*, 12(3), 297–312. <https://doi.org/10.1017/S0954579400003035>
- Sarı, S., & Gençöz, F. (2016). Shame experiences underlying depression of adult Turkish women. *Qualitative Health Research*, 26(8), 1102–1113. <https://doi.org/10.1177/1049732315579177>
- Sedighimornani, N., Rimes, K., & Verplanken, B. (2021). Factors contributing to the experience of shame and shame management: Adverse childhood experiences, peer acceptance, and attachment styles. *Journal of Social Psychology*, 161(2), 129–145. <https://doi.org/10.1080/00224545.2020.1778616>
- Sloan, E., Hall, K., Moulding, R., Bryce, S., Mildred, H., & Staiger, P. K. (2017). Emotion regulation as a transdiagnostic treatment construct across anxiety, depression, substance, eating and borderline personality disorders: A systematic review. *Clinical Psychology Review*, 57(October 2016), 141–163. <https://doi.org/10.1016/j.cpr.2017.09.002>
- Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2021). Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-021-01161-7>
- Southward, M. W., Sauer-Zavala, S., & Cheavens, J. S. (2021). Specifying the mechanisms and targets of emotion regulation: A translational framework from affective science to psychological treatment. *Clinical Psychology: Science and Practice*, 28(2), 168–182. <https://doi.org/10.1037/cps0000003>
- Steindl, S. R., Matos, M., & Creed, A. K. (2021). Early shame and safeness memories, and later depressive symptoms and safe affect: The mediating role of self-compassion. *Current Psychology*, 40(2), 761–771. <https://doi.org/10.1007/s12144-018-9990-8>

- Stifter, C., & Augustine, M. (2019). Handbook of emotional development. In V. LoBue, K. Pérez-Edgar, & K. A. Buss (Eds.), *Handbook of Emotional Development*. Springer. [https://doi.org/10.1007/978-3-030-17332-6\\_26](https://doi.org/10.1007/978-3-030-17332-6_26)
- Streiner, D. L. (2005). Finding our way: An Introduction to path analysis. *The Canadian Journal of Psychiatry*, 50(2), 115–122.
- Szumilas, M. (2010). Explaining odds ratios. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 19(3), 227–229. <https://doi.org/10.1136/bmj.c4414>
- Tabachnick, B. G., & Fidell, L. S. (2014). *Using multivariate statistics*. Pearson.
- Tanner, J. L. (2015). *Mental health in emerging adulthood* (J. J. Arnett, Ed.; 1st ed.). Oxford University Press.
- Thomas, C., & Zolkoski, S. (2020). Preventing stress among undergraduate learners: The importance of emotional intelligence, resilience, and emotion regulation. *Frontiers in Education*, 5. <https://doi.org/10.3389/feduc.2020.00094>
- Thomas, J. C., Letourneau, N., Campbell, T. S., Tomfohr-Madsen, L., Giesbrecht, G. F., Kaplan, B. J., Field, C. J., Dewey, D., Bell, R. C., Bernier, F. P., Cantell, M., Casey, L. M., Eliasziw, M., Farmer, A., Gagnon, L., Goonewardene, L., Johnston, D. W., Kooistra, L., Manca, D. P., ... Singhal, N. (2017). Developmental origins of infant emotion regulation: Mediation by temperamental negativity and moderation by maternal sensitivity. *Developmental Psychology*, 53(4), 611–628. <https://doi.org/10.1037/dev0000279>
- Thompson, R. A. (1994). Emotion dysregulation: A theme in search of definition. *Development and Psychopathology*, 31(3), 805–815. <https://doi.org/10.1017/S0954579419000282>
- Ulukol, B., Kahiloğulları, A., & Sethi, D. (2013). *Adverse childhood experiences survey among university students in Turkey: Study Report*. World Health Organization. [www.euro.who.int/](http://www.euro.who.int/)
- van Vliet, K. J. (2009). The role of attributions in the process of overcoming shame: A qualitative analysis. *Psychology and Psychotherapy: Theory, Research and Practice*, 82(2), 137–152. <https://doi.org/10.1348/147608308X389391>
- Velotti, P., Garofalo, C., Bottazzi, F., & Caretti, V. (2017). Faces of shame: Implications for self-esteem, emotion regulation, aggression, and well-being. *Journal of Psychology: Interdisciplinary and Applied*, 151(2), 171–184. <https://doi.org/10.1080/00223980.2016.1248809>
- Webb, M., Heisler, D., Call, S., Chickering, S. A., & Colburn, T. A. (2007). Shame, guilt, symptoms of depression, and reported history of psychological maltreatment. *Child Abuse and Neglect*, 31(11–12), 1143–1153. <https://doi.org/10.1016/j.chiabu.2007.09.003>



- Wimmer, L., von Stockhausen, L., & Bellingrath, S. (2019). Improving emotion regulation and mood in teacher trainees: Effectiveness of two mindfulness trainings. *Brain and Behavior*, 9. <https://doi.org/10.1002/brb3.1390>
- Windle, M., Haardörfer, R., Getachew, B., Shah, J., Payne, J., Pillai, D., & Berg, C. J. (2018). A multivariate analysis of adverse childhood experiences and health behaviors and outcomes among college students. *Journal of American College Health*, 66(4), 246–251. <https://doi.org/10.1080/07448481.2018.1431892>
- World Health Organization. (2022). *World mental health report: Transforming mental health for all*.
- Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *International Journal of Behavioral Development*, 38(2), 182–194. <https://doi.org/10.1177/0165025413515405>