

THE MEDIATOR ROLE OF EMOTION FOCUSED COPING ON THE  
RELATIONSHIP BETWEEN PERCEIVED STRESS AND EMOTIONAL  
EATING

A THESIS SUBMITTED TO  
THE GRADUATE SCHOOL OF SOCIAL SCIENCES  
OF  
MIDDLE EAST TECHNICAL UNIVERSITY

BY

NERGİS HAZAL YILMAZTÜRK

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR  
THE DEGREE OF MASTER  
IN  
THE DEPARTMENT OF EDUCATIONAL SCIENCES

JUNE 2018



Approval of the Graduate School of Social Sciences

---

Prof. Dr. Tülin Gençöz  
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

---

Prof. Dr. Cennet Engin Demir  
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

---

Assoc. Dr. Müge Çelik Örucü  
Co-supervisor

---

Prof. Dr. Ayhan Demir  
Supervisor

**Examining Committee Members**

Assoc. Prof. Zeynep Hatipoğlu Sümer (METU, EDS)

Prof. Dr. Ayhan Demir (METU, EDS)

Assoc. Prof. Dr. Okan Cem Çırakoğlu (Başkent Üni., PSK)

---

---

---



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

**Name, Last name:** Yılmaztürk, Nergis Hazal

**Signature:**

## ABSTRACT

### THE MEDIATOR ROLE OF EMOTION FOCUSED COPING ON THE RELATIONSHIP BETWEEN PERCEIVED STRESS AND EMOTIONAL EATING

Yılmaztürk, Nergis Hazal

M.S., Educational Sciences

Advisor: Prof. Dr. Ayhan Demir

Co-advisor: Assoc. Prof. Dr. Müge Çelik Örtücü

June 2018, 87 pages

The purpose of this study was to examine the mediating role of emotion focused coping on the relationship between perceived stress and emotional eating. The sample of the study was consisted of 711 university students (461 female, 250 male). Perceived Stress Scale (PSS), Coping Styles Inventory (CSI), Three Factor Eating Questionnaire (TFEQ - R21), and demographic information form were used in order to collect data in both paper-pencil and online forms. In order to answer research question, simple mediational by bootstrapping sampling method was conducted via SPSS Process macro. Results of the study suggested that there was a positive relationship between perceived stress and emotional eating. Besides, emotion focused coping mediated the association between perceived stress and emotional eating among female participants hence not among male participants. The findings of the current study were discussed in the light of the related literature.

**Keywords:** emotional eating, perceived stress, emotion focused coping, university students.

## ÖZ

### DUYGU ODAKLI BAŞA ÇIKMANIN ALGILANAN STRES VE DUYGUSAL YEME İLİŞKİSİ ÜZERİNDEKİ ARACI ROLÜ

Yılmaztürk, Nergis Hazal

Yüksek Lisans, Eğitim Bilimleri Bölümü

Tez Danışmanı: Prof. Dr. Ayhan Demir

Ortak Danışman: Doç. Dr. Müge Çelik Örucü

Haziran 2018, 87 sayfa

Bu çalışmanın amacı duygu odaklı başa çıkma stiline, algılanan stres ve duygusal yeme arasındaki ilişki üzerindeki rolünü incelemektir. Çalışmanın örneklemini 711 (461 kadın, 250 erkek) üniversite öğrencisi oluşturmaktadır. Veriler Algılanan Stres Ölçeği, Başa Çıkma Stilleri Ölçeği, Üç Boyutlu Yeme Ölçeği ve demografik bilgi formu kullanılarak, hem kalem-kağıt ölçekler hem de online ölçekler aracılığıyla toplanmıştır. Veriler, basit aracı değişken modeli bootstrapping yöntemi kullanılarak SPSS Process makrosu aracılığıyla analiz edilmiştir. Çalışmanın sonucu, algılanan stres ve duygusal yeme arasında olumlu bir ilişki olduğunu ortaya koymaktadır. Buna ek olarak, duygu odaklı başa çıkma stiline, kadın katılımcılar arasında algılanan stres ve duygusal yeme ilişkisi üzerinde aracı rolü olduğunu görülürken, erkek katılımcılar arasında bu ilişki gözlenmemiştir. Araştırmadan elde edilen bulgular ilgili literatür ışığında tartışılmıştır.

**Anahtar kelimeler:** duygusal yeme, algılanan stres, duygu odaklı başa çıkma, üniversite öğrencileri.

*To my dear parents...*



## ACKNOWLEDGEMENTS

I wish to express the deepest gratitude to my advisor Prof. Dr. Ayhan Demir for his guidance, encouragements and insight throughout the research. His encouraging and sincere attitudes helped me to pull myself together and go on. I am deeply grateful to my co-advisor Assoc. Prof. Dr. Mge elik rc who has always trusted and encouraged me to believe in myself. I would also extend my thanks to the thesis committee members, Assoc. Prof. Dr. Zeynep Hatipođlu Smer and Assoc. Prof. Dr. Okan Cem ırakođlu for their valuable contributions to the present study.

I want to give a special thanks to my parents; my mother, Yasemin, for all the sacrifices that she has made for me to achieve my goals, for always supporting me in my every decision with her warm and loving heart; my father, Naci, for encourage me to be who am I today with his profound love, even if he is not physically with me anymore.

I wish to extend my thanks to Hlya Bykata, and Selin Karaman for always being there for me, and Ayřegl Aracı İyiyaydın for her precious contributions. I am also grateful to members of TEDU Faculty of Education, members of METU and TEDU ELS, my friends Cansu Ekici, Gizem Solmaz, Mert Tunalı, Mehmet Sak and Selin Mısır, and my other friends for their sincere supports during this process. Last but not least, I am thankful to my participants. I wouldn't be able to finish this thesis without them.

## TABLE OF CONTENT

PLAGIARISM.....	iii
ABSTRACT .....	iii
ÖZ.....	v
DEDICATION .....	ix
ACKNOWLEDGEMENTS .....	vii
TABLE OF CONTENT .....	viii
CHAPTER 1	
INTRODUCTION.....	1
1.1 Background of the Study .....	1
1.2. Purpose of the Study.....	6
1.3. Significance of the Study.....	7
1.4. Definition of Concepts and Terms Used in the Study .....	8
CHAPTER 2	
LITERATURE REVIEW.....	10
2.1. Conceptualization of Emotional Eatingp.....	10
2.2. Conceptualization of Stress and Coping.....	13
2.2.1. The Physiological Perspective of Stress .....	14
2.2.2. The Psychological Perspective of Stress.....	15
2.2.3. Coping.....	17
2.3. Research on Emotional Eating.....	19
2.5. Research on Emotional Eating in Turkey.....	26
2.6. Summary of Literature Review .....	27

## CHAPTER 3

METHOD .....	29
3.1. Research Design .....	29
3.2. Participants and Sampling .....	30
3.2.1. Demographic characteristic of the participants .....	30
3.3. Data Collection Instruments .....	31
3.3.1 Demographic information form .....	31
3.3.2. Perceived Stress Scale (PSS).....	31
3.3.3. Coping Styles Inventory (CSI).....	32
3.3.4. Three Factor Eating Questionnaire (TFEQ-R21).....	33
3.4. Data Collection Procedure .....	34
3.5. Description of Variables .....	34
3.6. Data Analysis .....	35
3.7. Limitations of the Study .....	35

## CHAPTER 4

RESULTS .....	36
4.1. Preliminary Analyses of the Study .....	36
4.1.1. Assumption Check of the Variables of the Study .....	40
4.2. Descriptive Statistics of the Variables of the Study .....	42
4.3 Bivariate Correlations among Study Variables .....	43
4.4. Results of Mediaton Analysis .....	44

## CHAPTER 5

DISCUSSION.....	50
5.1 Conclusions.....	50
5.2. Implications for Practice .....	52
5.3. Recommendations for Future Studies .....	54

REFERENCES .....	57
APPENDICES	
APPENDIX A. APPROVAL OF APPLIED ETHICS RESEARCH CENTER...	69
APPENDIX B. INFORMED CONSENT FORM .....	70
APPENDIX C. DEMOGRAPHIC INFORMATION FORM .....	71
APPENDIX D. SAMPLE ITEMS FROM PERCEIVED STRESS SCALE.....	72
APPENDIX E. SAMPLE ITEMS FROM COPING STYLES INVENTORY ....	73
APPENDIX F. SAMPLE ITEMS FROM THREE FACTOR EATING QUESTIONNAIRE .....	74
APPENDIX G. TURKISH SUMMARY / TÜRKÇE ÖZET .....	75
APPENDIX H. TEZ FOTOKOPİSİ İZİN FORMU .....	87

## LIST OF TABLES

Table 3.1 Demographic Characteristics of the Study Participants.....	36
Table 4.1 Skewness and Kurtosis.....	44
Table 4.2 Means and Standard Deviations of the Predictor And Criterion Variables.....	50
Table 4.3 Bivariate Correlations among the Variables of the Study.....	51

## LIST OF FIGURES

Figure 1. The proposed model for mediational role of emotion focused coping.....	7
Figure 2. Histogram for perceives stress.....	45
Figure 3. Histogram for emotion focused coping.....	45
Figure 4. Histogram for emotional eating.....	45
Figure 5. Q-Q plot of perceives stress.....	46
Figure 6. Q-Q plot of emotion focused coping.....	46
Figure 7. Q-Q plot of emotional eating.....	46
Figure 8. The histogram of standardized residuals and the normal probability plot for emotional eating.....	48
Figure 9. The scatterplot of regression standardized predicted values for emotional eating.....	49
Figure 10. Total Effect of X on Y (Model A), Simple Mediation Model (Model B) among female participants.....	53
Figure 11. Total Effect of X on Y (Model C), Simple Mediation Model (Model D) among male participants.....	54

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of the Study

Since ancient times, eating and related disorders have been one of the most essential issues of humanity (Artıçı, 2013). Disordered eating behaviors have great effects, mostly negative, on psychological and physical well-being (Van Strien, Frijters, Bergers, & Defares, 1986). With respect to increasing prevalence and variety of eating related disorders among different populations, contemporary studies maintain a concern to understand and lead to improvements on disordered eating behaviors (Kemp, Bui, & Grier, 2013; Macht & Simons, 2000).

In tune with the preventative mission of psychological counseling field, it can be mandatory to focus on the early detection and prevention of eating disorders in order to overcome more severe patterns. Therefore, gaining an understanding on the onsets of disordered eating with regard to their reciprocal contributors should not be secondary compared to disordered eating behaviour.

“Emotional eating” is defined as the tendency of eating as a response to negative emotions (Van Strien et al., 1986) and considered as one of the onset for eating disorders such as Binge Eating Disorder and Night Eating Syndrome (Stice, Presnell, & Spangler, 2002; Masheb & Grilo, 2006; Verstuyf, Vansteenkiste, Soenens, Boone, & Mouratidis, 2013; Meule, Allison, & Platte, 2014; Wilson, Darling, Fahrenkamp, D’Auria, & Sato, 2015).

Emotional eating is determined by various contributors including psychological, social, biological, developmental factors (Slochover, Kaplan, & Mann, 1981; Torres & Nowson, 2007). Stress and coping can be considered among these factors.

Emotional eaters considered as more susceptible to stress in terms of stress-induced eating. Macht (2008) posited that one of the underlying factors on emotional eating can be the tendency to choose comfort food with the release of stress sensitive hormone from Hypothalamic–Pituitary–Adrenal (HPA) Axis in stressful situations. Farag and his colleagues (2008) mentioned about the relationship between feeling under pressure and feeling better after consuming foods with high sugar and fat. The term of “comfort food” officially used in 1977 and becomes more popular recently throughout gaining importance as people assign a meaning to food in order to provide comfort in times of distress. Hence, comfort foods were considered as a risk factor for unhealthy lifestyle and found to be related with health issues like obesity, especially in adolescence, which is a typical period of emotion fluctuations and crucial for weight gain (Levitan & Davis, 2010).

Regarding the period of fluctuations and stress, university students were considered to be at a time of major transition in life and particularly prone to emotional imbalances (Penaforte, Matta, & Japur, 2016). For instance, Robbins (2007) posited that transition to university was addressed by students as a “culture shock” due to the new roles and the conflicts it has brought. It was argued that transition to university, as a major life change, might be considered as a stressful experience (Robbins, 2007), and might bring adaptational problems. Lazarus (1999) remarked that conflict, frustration, trauma, hopelessness, anxiety, depression, and emotional distress are the concepts that reflect adaptational problems. These concepts were brought together under the framework of stress in which stress has dominance on others.

Lazarevich and colleagues (2015) also stated that individuals who experience transition to university were frequently feeling stressed with respect to separation from parents, taking responsibility of their own lives, new environment, relationships with friends and family, academic performance and multitasking. This is why, symptoms of stress due to adaptational problems were found to be common among university students together with the newly won freedom and responsibility (Robbins, 2007; El Ansari, et. al., 2011; El Ansari, Labeeb, Moseley, & El-Houfy, 2013). Since these changes were associated with stress, an adjustment period might have required



(Robbins, 2007), and transition to university can be a risk factor on emotional eating due to the increase on stressors, perceived stress and lack of coping repertoire (Wilson et al., 2015).

As one of the critical developmental stage, adolescence, understanding stress from perspective of youth is important. To be more precise, stress, which has various effects, becomes an inevitable part of the life. Stress reserves two aspects: the psychological perception of pressure, on the one hand, and the body's response to it, on the other (Baltaş & Baltaş, 2013).

Cassidy (1999) stated that the transactional model views stress as a transaction between the person and their environment, and incorporates both stimulus and response perspectives as a part of the process. Addition to environmental demands and individual needs and abilities, considering perception of stress becomes essential regarding the occurrence of stressful events in people's life according to contemporary stress research (Phillips, 2013).

Coping is an inherent part of stress concept. Individuals use multiple ways in order to cope with stress. Coping is described as cognitive and behavioral responses that individuals response to manage or tolerate stress (Lazarus & Folkman, 1984). Coping is a multi-dimensional concept and categorization of coping has been found to be necessary for conceptual clarity (Carver et al., 1989). Lazarus and Folkman (1985) organized coping in terms of two major categories; problem focused coping and emotion focused coping. Problem focused coping refers to doing something to change for the better of the problem causing the distress, including active coping and planning coping activities.

Emotion focused coping refers to regulation of distressing emotion, including seeking emotional support, reinterpretation, denial, turning to religion and self-blame (Endler & Parker, 1990). Jones and Bright (2001) also emphasized the association between emotion focused strategies and behavioral strategies to take someone's mind out of the stressors such as exercising, shopping, and drinking alcohol. Emotional eating might also be related with emotion oriented behavioral strategies (Spoor et. al., 2007). Some

of these coping styles were considered to be effective, whereas others not good enough to be effective or ineffective. Monat, Lazarus and Reevy (2007) stated that all of the coping process and styles should not be assumed to result in positive outcomes. At this juncture, emotional eating might be considered to have negative outcomes in terms of less effective coping styles.

Previous studies, which evaluated the relationship between stress and emotional eating, showed mixed results (Royal & Kurtz, 2010; Van Strien, Herman, Anshutz, Engels, & Weerth, 2011). Greeno and Wing (1994) stated that negative affect and distress were correlated with both increased and decreased food intake. Hence, studies showed that increased food intake considered to be as a more common response to negative affect and distress (Heatherton et al., 1991; Stone & Brownell, 1994).

Previously, ineffective ways of coping and emotional eating were found to be related (Spoor et al., 2007). Besides, since negative affect has been found to be associated with enhanced levels of emotion focused coping (McWilliams, Cox, & Enns, 2003; Turner, Sarason, & Trypin, 2005) regarding perceived stress (Wilson et al., 2015), and emotional eating might result from negative emotions (Spoor et al., 2007), an association among emotional eating, perceived stress, and emotion focused coping was expected. Since problem focused coping was not included within maladaptive coping (Monat, Lazarus, & Reevy, 2007), no association between problem focused coping and emotional eating was expected (Spoor et al., 2007) Therefore, including problem focused coping was not within the scope of the current study.

Even though the research showed that emotional eating might be considered as a way of coping with stress, studies that investigated the influence of coping strategies on emotional eating within the stress-eating relationship is limited (Nguyen-Michel & Sprijt-Metz, 2007; Nguyen-Rodriguez, Chou, Unger, & Sprijt-Metz, 2008).

There are many studies that investigated the variables in relation to emotional eating. In the literature, most prominent variables associated with emotional eating have found to be as gender (Nyugen-Rodriguez, Unger, Sprijt-Metz, 2009; Macht & Simons, 2011), body mass index (BMI; Van Strien et al., 1986; Geliebter & Aversa, 2003;

Nguyen-Rodriguez, Unger, & Spruijt-Metz, 2009), obesity (Ganley, 1989; Nguyen-Rodriguez et al., 2009), depression (Van Strien, Winkens, Toft, Pedersen, Brouwer, Visser, & Lähteenmäki, 2016). Nevertheless, these variables on emotional eating have shown inconsistent results. Therefore, although emotional eating is an old concept, it is not well-understood (Macht & Simons, 2011).

In the light of literature, it has been seen that emotional eating was mostly examined among female Caucasian adults in terms of gender, ethnicity, and developmental period (Ganley, 1989). Females are considered as a risk group for the development of disordered eating regarding comfort foods (Wansink, Cheney, Chan, & 2003; Beukes et al., 2009). Neumark-Sztainer and her colleagues (2002) emphasized that females have been seen as a risk group due to their tendency to use unhealthy weight control practices.

On the other hand, some studies did not find any gender difference on emotional eating behavior. Nguyen-Rodriguez and her colleagues (2009) reported that they did not find a significant difference between emotional eating scores of male and female participants in a cross-sectional study. Another study on emotional eating with participants from both genders showed that males were more likely to eat as a response to vague emotional factors (Goossens, Braet, & Decaluwe, 2007). Therefore, considering the incongruent results between gender and emotional eating, males also need to be investigated in studies (Nguyen-Michel et al., 2007; Nguyen-Rodriguez et al., 2009).

Studies on the relationship between emotional eating and BMI were also not consistent. Among different cultures, some studies found a positive association between emotional eating and BMI (Meule et al., 2014; Van Strien et al., 2016), whereas others did not find any association between these two (Snoek, Engels, Van Strien, & Otten, 2013). Studies on emotional eating began with obese and overweight people (Kaplan & Kaplan, 1957), nevertheless recent studies showed that emotional eating patterns can be common among normal-weight and under-weight samples (Geliebter & Aversa, 2003; Macht, 2008; Vanderwalde, Moens, Beyers, & Braet, 2016).

Macht and Simons (2011) emphasized the cultural influences on investigating emotional eating. Addition to the fact that previous research in adults indicated that behavioral problems regarding emotional eating differ across cultures (Walter & Matoba, 1999). It is also remarkable that studies mostly conducted with samples including children and adults (Vanderwalle et. al., 2016). In spite of a growing interest to gain an understanding on emotional eating, studies were limited with regard to perceived stress and coping styles. Therefore, these concepts still remained unclear in Turkish sample. At present no study exists in Turkish literature that specifically investigated emotional eating with regard to perceived stress and coping styles among university students. Therefore, investigating emotional eating in a critic developmental stage, adolescence, within a different cultural context, in Turkish university students' sample, might be useful in order to gain a deeper understanding on emotional eating and stress relationship.

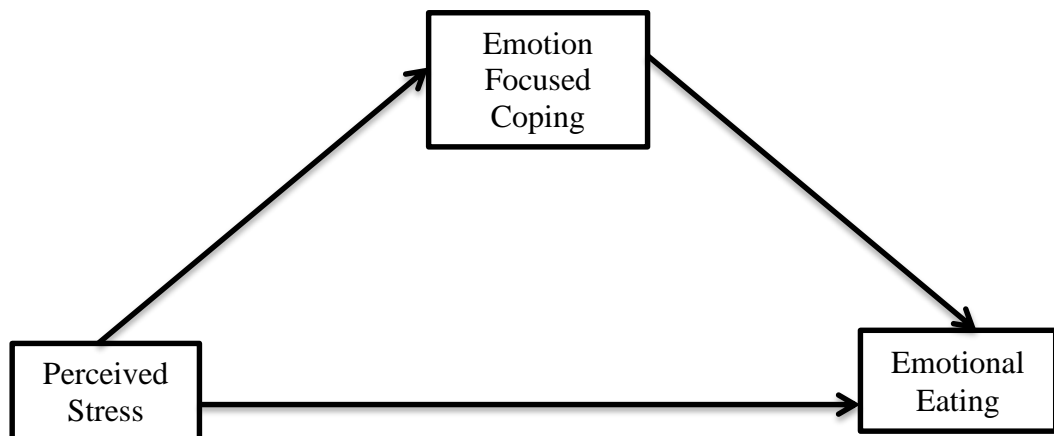
## 1.2. Purpose of the Study

The main purpose of the current study is to investigate relationships among perceived stress, emotion focused coping, and emotional eating via the direct and indirect effects of percieved stress and emotion focused coping on emotional eating among Turkish university students (see Figure 1).

Research questions that will be dealt in the present study are stated below.

Research Question 1: What are the associations among perceived stress, emotion focused coping, and emotional eating in a sample of Turkish university students?

Research Question 2: To what extend does emotion focused coping mediate the relationship between perceived stress and emotional eating in a sample of Turkish university students regarding gender?



*Figure 1.* The proposed model for mediational role of emotion focused coping

### 1.3. Significance of the Study

Transition to university is a stressful experience for many young people and may bring some concerns to cope with emotional, psychological, social, and physical dimensions such as psychological distress, mood swings, parent and peer relations, and vulnerability on increase on body mass index within the current developmental period. How emotions are managed during these years is critical for the development of effective behavioral patterns. University students might use various strategies in order to cope with stressors which can be adaptive and maladaptive. In the light of emphasis on triangulation among stress, coping and emotions (Lazarus, 1999), food intake might serve as way to overcome arousals from negative emotions, emotional eating might be considered as one of the strategies to cope with stress (Macht, 2008).

Emotional eating, which was identified as the behavioral pattern of eating in response to negative emotions, is considered as a maladaptive eating patterns that bring negative outcomes such as unhealthy lifestyles, obesity, eating disorders like binge eating disorder and night eating syndrom (Presnell & Spangler, 2002; Masheb & Grilo, 2006; Verstuyf et al., 2013; Meule et al., 2014; Wilson et al., 2015).

Unhealthy eating patterns are one of the risk factors among Turkish youth. For instance, Turkish Statistics Association (TUIK, 2014) has announced that 33.7 % of Turkish people, who are over 15 years old, are obese, bingeing, and have high BMI scores. Therefore, understanding components of the risk factors during adolescence is critical in order to provide a healthy path for transition to adulthood, and provide prevention/intervention strategies in necessary cases (Levitan & Davis, 2010).

Cassidy (1999) emphasized the role of social factors regarding cross-cultural differences in stress and coping. Emotional eating was also need to be investigated within the cultural context (Macht & Simons, 2011). Therefore, in addition to limited research on emotional eating, investigating this concept regarding its association with perceived stress and emotion focused coping might contribute to understand its' dynamics among the sample of Turkish youth.

Disordered eating has comprehensively studied but emotional eating has scarcely been studied in terms of its psychological aspects in Turkey. Although limited, results of the emotional eating studies in Turkey have highlighted the significance of this concept among Turkish adults (Özdemir, 2015). Besides, growing body of literature on emotional eating was carried among child and adult samples (Torres & Newson, 2007; Van Strien, Herman & Verheijden, 2009; Özdemir, 2015). Due to the increasing risk on prevalence of eating disturbances among late adolescents and young adults, one could expect that studying emotional eating might be necessary at this period of transition.

All in all, this study aims to promote an understanding of emotional eating with regard to the direct effects of percieved stress and indirect effects through emotion focused coping among Turkish university students for future studies.

#### **1.4. Definition of Concepts and Terms Used in the Study**

*Stress*: The relationship between the person and environment that is appraised by the person as taxing or exceeding his or her resources and as endangering well-being (Lazarus & Folkman, 1984).

*Coping*: The person's cognitive and behavioral efforts to manage (reduce, minimize, master or tolerate) the internal and external demands of the person - environment transaction that is appraised as taxing or exceeding the person's resources (Lazarus & Folkman, 1984).

*Emotion-focused coping*: Emotion-focused coping refers the regulation of distressing emotions and including factors like seeking distancing, selective attention, and self – deception (Folkman & Lazarus, 1985).

*Emotional Eating*: Emotional Eating is a psychological eating style as a response to negative emotions, irritability, and tension (van Strien et. al., 1986).

## CHAPTER 2

### LITERATURE REVIEW

In this chapter the conceptualizations and existing literature for emotional eating, stress, and coping, research on emotional eating, stress and coping and research on emotional eating in Turkey are presented.

#### **2.1. Conceptualization of Emotional Eating**

The first theory of emotional eating, “Psychosomatic Theory” of Kaplan and Kaplan (1957) emphasized the effect of negative emotions that lead to an increase on overeating in order to reduce the effects of unpalatable emotions, the signals of discomfort such as emotional tension, and uncomfortable sensations and feelings.

In other words, Kaplan and Kaplan (1957) suggested that negative emotions lead to reduce negative effects of unpalatable emotions. Even the underlying process of this mechanism has not been completely understood, their proposal was that obese people cannot distinguish between physiologic and psychological hunger. The main foci of their theory was when the individual cannot distinguish the resource of hunger compulsive overeating might occur.

Secondly, Bruch (1973) developed a theory which is related to emotional eating in terms of psychosomatic view. Her theory focused on the connection between overeating and faulty hunger awareness too. Hence, Bruch (1973) argued that previous learnings early life experiences, such as pleasurable sensations after being fed, might lead to eat in order to feel pleased in further developmental stages as well. As a result, individual might become unable to differentiate the urge to eat for hunger and signals of discomfort such as emotional tension, and uncomfortable sensations and feelings. Theory of Bruch (1973) emphasized that, inner awareness of emotional eaters were



not correctly programmed, and these individuals were looking for “external signals” to identify when to eat and how much to eat. Under the roof of psychodynamic approach, the common sense of Kaplan and Kaplan’s (1957) and Bruch’s (1973) predictions in emotional eating in obese people was evaluating it as a response to distressing emotions. Ganley (1989) also reports that emotional eating mostly forms a basis by negative emotions regarding anger, depression, loneliness, anxiety and boredom, and often osculated to stressful life periods.

Psychosomata conceptualizations of Kaplan and Kaplan (1957) and Bruch (1973) became pioneer for further models in emotional eating. There were also alternative approaches that promote an understanding the emotional eating phenomenology. These were Internal/External Theory by Schachter (1968), Restrained Hypothesis by Herman and Polivy (1975), and Escape Theory of Baumeister and Heatherton (1991).

First of all, Schachter (1968) discussed whether physiological symptoms of anxiety and fear, promote food consumption. Schachter’s (1968) approach differed from previous concepts of emotional eating by claiming that obese people were lack of revealing internal stimulus, and require external stimulus in order to start and end the eating behavior. The point was, when Bruch’s (1973) psychoanalytic concept posited the internal clues to be aware of hunger, which were evaluated as faulty ones, Schachter (1968) focused on being lack of internal stimulus to start eating behavior. McKenna (1972) also found consistent results with Schachter’s study with regard to demand on palatable foods. On the other hand, Lowe and Fisher (1983), Pine (1985), Reznik and Balch (1977), Ruderman (1983) and Slochower and his colleagues (1981) found inconsistent results with Sachter’s study (as cited in Canetti et. al., 2002).

Later, Herman and Mack (1975) initially developed restrained hypothesis, but Herman and Polivy (1975) made further elaborations. The main idea of their hypothesis relied on the balance between desire for food and cognitive resistance to that desire (as cited in Canetti et al., 2002). Another part of their hypothesis the disinhibition hypothesis. According to the disinhibition hypothesis, restrained and emotional eaters’ eating habit might have been damaged temporarily by reflections of external factors. These factors

can be gathered in terms of anxiety, depression, and misconceptions about overeating and alcohol consumption.

According to Baumeister and Heatherton (1991), emotional eating was defined as an escape mechanism to run away from raising awareness from an ego-threatening stimulus. In this concept, eating had a role as distractor. Escape Theory emphasized that emotional eaters consume more food under stressful conditions, especially which include ego-threat or self-referent negative information. Wallis and Hetherington (2004) also revealed that cognitively demanding and incongruent tasks lead to enhanced levels of hunger with perception of ego-threat and loss of control.

Van Strien and her colleagues (1986) defined emotional eating in terms of eating as a response to irritability, depression and tension, and as one of the psychological eating style. This definition also has its focus on negative emotions. Hence, it was extended later as an obese style of eating in order to come over unpleasant emotions (Van Strien et al., 2016). Since emotional eating studies had started with obese participants and then generalized into both obese and normal-weight individuals (Geliebter & Aversa, 2003), their extension might be consistent with the point of origin on emotional eating studies. Regardless of this extension, eating mostly occurred by emotional reasons had two dimensions (Lefkoe Institute, 2012). First of them was, consistent with the majority of emotional eating perspectives in terms of eating, in order to cover up negative feelings such as loneliness, anxiety and boredom. Second one was eating to reward oneself in order to celebrate or to give oneself pleasure.

Emotional eating in youth was not commonly studied in Turkey (Işgın et. al., 2014). Therefore, it is difficult to pinpoint prevalence solely for emotional eating. Hence, studies abroad showed that emotional eating is more common among adolescents compared to children (Wardle, Guthrie, Sanderson, & Rapoport, 2001; Nguyen-Rodriguez et al., 2009). Even though eating habits might have been developing in early childhood, it is suggested that emotional eating commonly urges in adolescence (Van Strien, Van der Zwaluw, & Engels, 2010). Besides, Ashcroft, Semmler, Carnell, Van Jaarsveld and Wardle (2008) emphasized that emotional eating in youth carries on

across lifespan and contribute to continuing weight gain into adulthood in their longitudinal study.

Eating as a response to reduce negative feelings might become more rigid over time and inhibit practicing more adaptive strategies (Macht & Simons, 2000). Since emotional eating can be reinforced through early experiences of food consumptions in order to soothe the adverse experiences, emotional eating might have been considered as a maladaptive reaction to negative moods, and need to be considered before it becomes more rigid (Macht & Simons, 2000).

One of the essential points on emotional eating was to differentiate it from disordered eating. At this juncture, how often stress induced eating cycle reoccur, how much does the amount of food eat emotionally, and how often does emotional eating has been used as a coping strategy were the critical pinpoints with regard to identify the boundaries of emotional eating. Besides, considering the major differences between eating disorders such as bingeing, as one of the eating disorder that mostly overlapped with emotional eating, was critical in order to recognize the borderline between emotional eating and eating disorders (Levitan & Davis, 2010).

## **2.2. Conceptualization of Stress and Coping**

Dated from 80's, stress and coping have been studied by an extensive literature with regard to emotional eating's bidirectional relationship with various variables such as psychological and physical well-being (Türküm, 1999). Even stress has a frequent usage and numerous definitions; the term of stress in the literature is not consistent and not simple to define it (Krohne, 2002). Two major categories on stress research are; "the physiological perspective" focusing on the sympathetic nervous system and the pituitary-adrenal-axis (HPA) emphasizing the physiological responses of the body to harmful stimuli, and "the psychological perspective" based upon the individual's interpretation of the meaning of the life events addition to the appraisal of the coping resources (Evans & Cohen, 1987).

### **2.2.1. The Physiological Perspective of Stress**

Regarding their notable contributions to the physiological perspective, Cannon (1929) and Selye (1956) were both concentrated on the homeostatic processes in which aversive conditions, stressors, cause an unbalance over the internal stability. Therefore, this perspective had its foci on reformatting the homeostatic balance against stressors, in which homeostasis refers to the tendency of the body to the pre-stress position in physiological terms such as heart rate, blood pressure, etc. (Evans & Cohen, 1987).

According to Cannon (1932) there was an autonomic emergency response system within the body that permits the organism to fight or flee from the aversive condition, the stressor. Along with urbanized civilizations, many researchers also concerned about the potential consequences supposing what happens if physiological readiness was activated without individual's inability to fight or flight with regard to the physical or social restraints, social norms, stimulations and demands due to these modifications (Evans & Cohen, 1987).

In 1950s, a complementary model due to physiological stress perspective was developed General Adaptation Syndrome (GAS) by Selye. Selye (1956) defined stress as “the non-specific response of the body” and emphasized the non-specification of the stressors. General Adaptation Syndrome consists of three stages; alarm, resistance and exhaustion. When the organism exposed to the stressor the alarm stage was activated with “fight or flight” response. Besides, sympathetic nervous system was activated. In the resistance stage, the organism sustained aroused. Hence, the body processes worked to adapt to the stimuli. As a result of continuum of the stressor which is beyond the body's capacity, the exhaustion stage occurs, and organism becomes vulnerable against illnesses (Selye, 1956).

Stress is mostly associated with negative connotations. Hence, Selye (1956) argued three pioneering forms of stress: distress, eustress, and neustress. In line with the negative association, “distress” refers to the negative impact of stress. “Eustress (euphoric stress)” refers to the positive impact of stress, and “neustress (neutral stress)”

refers to either positive or negative impact of stress on humans (Szabo, Tache, & Somogyi, 2012).

Evans and Cohen (1987) gathered the implications of physiological perspective of stress in terms of three main points. First of all, as responses to a specific stressor might be influenced by the severity of both specific event and recency of other threatening event, stress may be additive because various stressors may cause to a nonspecific response, General Adaptation Syndrome. In the second place, as a consequence of the adaptation processes, there might be some pathological costs such as effects of catecholamines on cardiovascular system and increase on susceptibility of immune system against diseases. Lastly, since the body has a limited adaptive energy, surpassing the limits might lead to detrimental effects.

### **2.2.2. The Psychological Perspective of Stress**

The focus of psychological stress was composed of individual's interpretation of the meaning of environmental events, and an appraisal of personal coping resources (Lazarus, 1984). Lazarus' (1984) conception of stress led to Cognitive Appraisal Theory including primary appraisal and secondary appraisal. *Primary appraisal* refers to the evaluation process of the stressor as potential harm, threat loss or challenge, and depends on personal factors and situational variables. While general beliefs on self-efficacy, centrality of threatened goals and needs, and variety of dispositional factors generates personal factors; approximation of harm, magnitude, duration and uncertainty of stressor in addition to its controllability were generated situational variables (Evans & Cohen, 1987).

Lazarus (1991) stated the fact that primary appraisal was about the risk that the individual appraised from stressor, therefore he added that the absence of risk means absence of the emotion. Coping and emotion relationship declared to be complicated, hence it did not mean unimportant because emotions help to identify the overall context of stress and coping regarding transactional model (Lazarus, 1993). *Secondary appraisal* refers to the evaluation process regarding what can be done in order to

overcome/prevent harm, in other words evaluation process of coping resources to deal with the stressor (Lazarus, 1984).

Lazarus (1984) underlined the mediator role of appraisal between stressors and coping. Jones and Bright (2001) also emphasized that the nature of the appraisal was obviously effective on determination of the coping strategy. Consistent with transactional model, Hamilton and Warburton (1979) pointed out that stress was analyzed with regard to cognitive appraisal and coping, a set of psychological processes that mediated encounters between individual and environment lead to emotional and adaptational outcomes.

The individual-environmental relationship was found to be associated with proximal measures that identify the conceptual closeness to the person's experience including *perceptions* about the amount of stress associated (Jones & Bright, 2001). Therefore, understanding how stress was perceived becomes important in the context of transactional model.

Perceived stress was identified as the emotions or thought that individuals express about how much stress the experience under at a given point in time or over a given time period (Cohen, Kamarck, & Mermelstein, 1983). Perceived stress has a binary corporation including feelings about the uncontrollability and unpredictability of the individual's life (Phillips, 2013). In terms of assessing stress, instead of types or frequencies of stressful events, how and individual felt about the general stressfulness of their life and their ability to handle stress gained importance on contemporary stress research (Phillip, 2013).

The essence of perceived stress came from the point that individuals may be exposed to similar unpleasant life events/stressors, hence they may appraise the impact or severity of these factors differently with regard to personality and coping resources (Phillips, 2013). Thus, perceived stress reflects the interaction between the individual and his/her environment in which he/she appraised as threatening, or overwhelming regarding his/her resources (Cohen, et al., 1983). It was also emphasized the studies on

perceived stress mostly utilized on adult samples, and suggested to generate normative data including younger samples.

The psychological perspective also highlighted that the appraisal of the demands with the exceeding coping resources lead to stress (Evans & Cohen, 1987). Evans and Cohen (1987) gathered the implications of the psychological perspective of stress in terms of three main points. First of all, the individual's perception of environmental demands and their own coping resources were among of the most decisive variables on determination of the stress response. Secondly, stressful situations were not inflexibly aversive. Personal factors and situational variables might also have ameliorative roles on the effects of stressors either by one or both of them. For instance, with regard to primary appraisal, perceived control on a stressor may make it seem less threatening or with regard to secondary appraisal, individual might feel there is more options available to cope with the stressor. In the third place, in addition to physiological factors that Cannon and Selye emphasized, there were bunch of impacts of stress on individuals such as negative affect, deficits on task performance, personality traits, and related symptoms as tension and anxiety.

### **2.2.3. Coping**

On stress research, coping is a fundamental concern. The root of modern coping research was settled back to late 19<sup>th</sup> century works of psychoanalytic theorists (Jones & Bright, 2001). For instance, Freud mostly focused on the ways how individuals deal with unpleasant emotions with defense mechanisms. Anna Freud expanded this approach by integrating preferred defense mechanisms or preferred defensive style into her studies (as cited in Parker & Wood, 2008).

Lazarus and Folkman (1984) defined *coping* as “constantly changing cognitive and behavioral efforts to manage specific external and internal demands that are appraised as taxing or exceeding resources of the individual” (p. 141). In their model, Lazarus and Folkman (1984) stated the dynamic nature of coping and emphasized the fact that it can change during the overall transaction between person and environment.

Until 1960s coping was used to describe some of the defense mechanisms, hence the difference between coping and defense was unclear. In the contemporary coping research in psychology, there are two main approaches (Jones & Bright, 2001). First one is *dispositional approach* which has its foci on investigating whether there are specific coping styles that enable people to cope better across the varying situations (Jones & Bright, 2001). Latter is *contextual approach* which is based on appraisal-based model of Lazarus and his colleagues, and addresses the coping process and whether there are specific strategies for varying situations (Monat, Lazarus, & Reevy, 2007).

According to Folkman and Lazarus (1985) coping may have taken two general forms; the distinction between the coping which aims an actual dealing with the stressor, and the coping which focuses on dealing with the emotion caused by the stressor is essential. The former was called as *problem focused coping*, and the latter was called as *emotion focused coping* (Lazarus, 1984).

Jones and Bright (2001) stated that problem focused coping is mostly used when the stressor is evaluated as appropriate to change or modify, and emotion focused coping is mostly used when appraisal does not indicate any possible modification on the stressor. Problem focused coping strategies contain learning new skills, finding alternative channels of fulfillment, or developing new standards of behaviors.

Contrarily, emotion focused coping strategies are consisted of wishful thinking, minimization, or avoidance (Lazarus, 1993). The usage of problem focused coping is more common when stressor is perceived as changeable; whereas emotion focused coping is likely to be preferred for stressor that perceived as unchangeable (Türküm, 1999). Endler and Parker (1990) stated that researchers on coping with regard to gender resulted that females were using more emotion focused coping, whereas problem focused coping was more frequently used among males.

In terms of adaptive coping styles, problem focused coping - in comparison to emotion focused coping- was found to be related with increasing psychological and



physiological well-being (Türküm, 1999). Lazarus (1993) also emphasized that effectiveness of a specific coping style was determined by various factors such as type of stressor, individual's personality, well-being, and psychosomatic health. The last concept can be investigated in terms of emotional eating in the light of psychosomatic perspective which emphasizes negative emotions were bidirectionally related with emotional eating. To be more precise, since potential risk after primary appraisal was found to be related with emotions (Lazarus, 1993), these emotions might have been correlated with unfavoured eating patterns, such as emotional eating, in the basis of psychosomatic perspective. Previous studies showed that emotion focused coping and poor coping skills tend to serve a moderator in terms of development of disordered eating behavior (Stice, 1994; Spoor et. al., 2007; Wichianson, Bughi, Unger, Spruijt-Metz, & Nguyen-Rodriguez, 2009).

Even if the relationship between stress and health behaviour was complex, Monat, Lazarus, and Reevy (2007) emphasized the positive relation among increase on perception of stress and increase on poor health behavior. Hasking (2006) also posited that focusing on inactive coping strategies might engage in increase on eating disorders among young adults. In studies with female undergraduate populations, emotion focused coping has been associated with binge eating (Mayhew & Edelman, 1989), also partially mediated the association between emotion focused coping and binge eating. On the other hand, no association was found among stress, problem focused coping and binge eating (Sullkowski, Dempsey, & Dempsey, 2011). Due to the fact that emotional eating was found to be related with bingeing and binge eating has found to be associated with emotion focused coping (Sullkowski et al., 2011), emotional eating might be related with emotion focused coping.

### **2.3. Research on Emotional Eating**

The conceptualization of emotional eating as a coping strategy has been adapted from adults to younger samples. Existing literature suggest that avoidant coping was in a positive relation with increase on emotional eating and higher BMI (Spoor et. al., 2007). Spoor and his colleagues (2007) examined whether there was a significant effect of the negative mood, emotion focused coping, and avoidance-distraction coping

unique and combined construction of them on emotional eating among young Dutch females. Positive and Negative Affectivity Schedule, Dutch Eating Behavior Questionnaire, and Coping Inventory for Stressful Situations was used to collect data from the sample consists of 125 women with eating disorder, and 132 women without eating disorder ( $M_{age} = 26$ ). Hierarchical regression analysis revealed that reliance on emotion focused coping and avoidance-distraction coping was related to emotional eating in both women with eating disorder diagnosis and women from non-clinical sample. Negative mood did not contribute uniquely regarding both coping styles and its relationship with emotional eating.

Initial research on emotional eating has begun with the role of negative emotions and the arousals (Kaplan & Kaplan, 1957). The association between stress and emotional eating has been established in some studies among university student in different cultures (Bennett, Schwarz-Barcott, & Greene, 2013; Yoshikawa, Tanaka, Ishii, & Watanabe, 2014). In a qualitative study, Bennett, Schwarz-Barcott, and Greene (2013) studied on perceptions on emotional eating behavior among university students aged between 18 and 24, in the USA. Consisted with previous results it was found that emotions and perceived stress affect food choices (Kandiah, Yake, Meyer, & Jones, 2006; Wilson et al., 2015), Emotional patterns and emotionally instrumental eating, Macht's (2008) model of emotional eating, and emotional eating scale of Weight Related Eating Questionnaire were used in order to conceptualize interview questions that structured the data collection. Whether or not participants named some of their emotions were found to have an influence on their eating pattern. They were asked to examine the similarities and discrepancies the range of emotions, their perception on the link between emotions and their eating behaviors and the character of this link. Results of sixteen participants had shown that there was an inconsistent role of stress on emotional eating; some of the participant claimed moderate level of stress enough to eat emotionally, where some of them said stress lead them to reduce eating. Hence, the latter was less frequent (Bennett, Schwarz-Barcott, & Greene, 2013).

Wilson and her colleagues (2015) conducted a study with 97 college freshmen (73% female) with average BMI of 25.3 ( $SD = 5.7$ ), and ages between 18-29. During the

first month, college participants were asked to fill Perceived Stress Scale, Emotional Eating Scale, and Eating and Appraisal Due to Emotions and Stress Questionnaire. Aim of the study was twofold: (1) to identify perceived stress and resources to cope during transition to college, and (2) determine whether BMI moderated the relationship between stress and eating. Results of linear regression showed that higher perceived stress and poor resources to cope predicted emotional eating during transition to college. For the role of BMI on moderating stress and eating relationship, low BMI with high perceived stress predicted higher emotional eating, whereas high BMI did not.

In another study which was conducted with 117 Japanese university students, Yoshikawa, Tanaka, Ishii, and Watanabe (2014) investigated the role of emotional eating and mental stress on fatigue. Emotional eating subscale of TFEQ - R21, Japanese adaptation of Chalder Fatigue Scale, and questions about dietary life style including appetite response to stress, quantity of food intake, personal preference to food and regularity of meals were used in order to collect data. Multivariate logistic regression analysis showed that university students who eat less under mental stress had more tendencies to experience fatigue. Yoshikawa, Tanaka, Ishii, and Watanabe (2014) also reported that since eating is a culturally embedded behaviour and discrepancies between countries might have seen on attributable roles on food consumption, diverse studies and cultural functions should be considered regarding researches on eating.

Tan and Chow (2014) emphasized the deficiency of understanding the underlying mechanisms of emotional eating itself and its onsets. Therefore, the mediating role of eating dysregulation between stress and emotional eating among 345 young adults ( $M = 19.5$ ,  $SD = 1.3$ ) was used in the USA with four diverse ethnic composition including Caucasians, African Americans, Asians, Hispanics and mixed/other sequentially. Participants were consisted of both gender (227 females) and their BMI scores were between 16.6 and 47.4 (67% of them were between 18.5 and 24.9). Results of the mediation analysis showed that indirect effect of stress on emotional eating through eating dysregulation was significant. Their model revealed that higher stress was

related to higher eating dysregulation, and consecutively related to higher engagement in emotional eating.

Since increased risk of unhealthy shifts on eating behaviour, adolescence and early adulthood are considered to be critical periods, specifically for females (Kitsantas, Gilligan, & Kamata, 2003). One such period is transition from high school to university” (Beukes, Walker, & Esterhuysen, 2009; Boyce & Kuijper, 2015). Due to adaptational necessities this period might bring some stressors to cope. As a result of diverse coping styles, each student performs his/her personal strategy. Some of these coping styles include maladaptive functions that bring secondary problems. For instance, increase on emotional eating in order to cope with negative emotions, might lead to increase on BMI. Macht (2008) and Boyce and Kuijper (2015) stated that stress might affect BMI regarding hypothalamic-pituitary-adrenal axis activation results as a continuum on hormonal changes.

The role of coping in terms of perceived stress and disordered eating in a cross-cultural sample was studied with residential 349 female (206 Caucasian, 143 African American) freshmen in the USA (Beukes et al., 2009). Product-term regression analysis was performed for Caucasian and African American students independently. Results showed a significant positive association between perceived stress and disordered eating behavior among all participants. In terms of coping responses, avoidant coping acted as a moderator and mediator for Caucasian participants, whereas it did not moderate or mediate the disordered eating scores of African American participants.

Spoor and his colleagues (2007) also emphasized that coping styles are indispensable elements regarding psychosomatic theory that assumes the significant role of the unsuccessful coping strategies on emotional eaters in terms of being limited on regulating their negative moods properly. This notation was consistent with the theory of Heatherton and Baumeister (1991), in which the act of emotional eating might serve as an avoidant coping to reduce stress and draw attention to different areas rather than stressor itself. Besides, problem focused coping was found to be in relationship with increase on favorable outcomes and decrease on psychological dysfunction among

youth, whereas emotion focused coping was vice versa (McWilliams et al., 2003; Turner et al., 2005).

Emotional eating has also been studied regarding parenting and family interaction. Topham and his colleagues (2011) emphasized the role of parenting in the early development of emotional eating. Moreover, Snoek, Van Strien, Janssens, and Engels (2007) found the significant roles of low maternal support, high psychological and behavioral control on increasing emotional eating among Dutch adolescents.

The role of deficit of social support was also previously found to be related with disordered eating (Wonderlich-Tierney & Vander Wal, 2010). Recent studies started to specifically investigate the role of social (un)support on emotional eating (Raspopow, Matheson, Abizaid, & Anisman, 2013). Two studies conducted on the role of (un)supportive social interactions and coping styles on emotional eating. First study with 221 participants indicated that unsupportive social interactions were related with emotional eating, emotion focused coping. Latter study with 169 participants revealed the mediating role of emotion focused coping between social support and emotional eating (Raspopow et al., 2013).

Studies showed various associations between eating and negative emotions. For instance, Wansink, Chan and Payne (2007) discussed emotional eating in stress and coping context regarding “mood self-verification technique”. In the light of self-verification theory, individuals tend to prefer emotional eating throughout eating comfort foods when in a negative mood and prefer more nutritious food in order to appease physiological hunger (Wansink et al., 2007). In another study, it was hypothesized that distress might lead to impairments on self-regulation. To be more precise, if an individual was upset and confronting with something to feel his/her better, priority was given to feeling better than controlling impulses by checking whether the preference was healthy or not (Tice, Bratslavsky, & Baumeister, 2001). Interestingly, results did not indicate a significant and continuous relationship between eating and mood elevation. Although participants ate when they reported negative moods, their moods were changeable. Similarly, Herman and Polivy (1975) had found

corresponding results by indicating that people tend to eat more in stressful situations, hence emotional eating did not enhance their mood.

#### **2.4. Research on Emotional Eating, Stress and Coping**

With regard to relationship between stress and eating, two major theoretical concepts as General Effects Model and Individual Differences Model were generated. General Effects Model was mainly focused on animal studies and states that stress would increase eating in all organisms, whereas Individual Differences Model was based on only human studies in order to enlighten bidirectional relationship between stress and eating. Individual Differences Model stated that eating in response to stress would depend upon certain factors of an individual characteristics regarding three major hypothesis (Greeno & Wing, 1994).

Three major hypotheses that tested within the Individual Differences Model were being obese vs. normal weight, being restrained eater vs. unrestrained eater, and being female vs. being male. The former group in each of these comparisons was thought to be more prone to stress-induced eating (Nguyen-Rodriguez et al., 2009). Nguyen-Rodriguez, Unger and Spruijt-Metz (2009) stated theories that applicable for Individual-Difference Model was also appropriate for emotional eating, due to the fact that development of emotional eating urged regarding the negative emotions that found to be related with stress.

Greeno's review supported the model of stress-induced eating in terms of stress as a precursor of overeating. Hence, even studies on emotional eating chronologically started with investigating overeating in obese people (Kaplan & Kaplan, 1957; Bruch, 1973), later contemporary emotional eating research also focused on normal-weight and under-weight people (Geliebter & Aversa, 2003; Macht, 2008). Then, Nguyen-Rodriguez, Unger and Spruijt-Metz (2009) suggested that concept of Individual Differences Model which was originally generated for restrained eating, can also be used in order to understand emotional eating, and can be investigated in the sample of university students without taken into account regardless of weight status.

Nguyen-Rodriguez and her colleagues (2008) also emphasized that reporting higher level of perceived stress engaged in higher level of emotional eating among youth. In their study, results showed that there is a relationship between perceived stress and emotional eating, regardless of weight status among university students (Nguyen-Rodriguez et al., 2008). Similarly, Michaud and colleagues (1990) found that adolescents with a stressful life event, final exam day, changed their eating behavior. To be more specific, females increased total energy intake and males increased the amount of fat in their diet. Additionally, Roemmich and colleagues (2002) stated that stress-induced excess energy intake, especially via preference on energy-dense “comfort” foods. Overall, youth who reported poor responses to stress are at high levels of risk of becoming overweight due to emotional eating. Besides, previous studies suggested a strong effect of emotional stress on enhanced levels of obesity over time (Levitan & Davis, 2010). A study in the United Kingdom was also found a positive association among the increase of stressors, the usage of emotion-focused coping and maladaptive eating patterns, via Eating Aptitudes Test, in a sample of 286 female adolescents (Fryer, Waller, & Kroese, 1997).

Another study with 186 female adolescents in Spain assessed the association between coping styles and predisposition to eating disorders (García-Grau, Fusté, Miró, Saldaña, & Bados, 2002). Results showed that intropunitive avoidance, described as avoiding problems, and maladaptive coping, explained the highest percentage of variance in the Eating Disorder Inventory (García-Grau et al., 2002).

Hence, most of the existing studies have had methodological limitations. For example, some studies had small samples comprised 186 adolescents (García-Grau et al., 2002). Often the study was comprised of only female subjects (Fryer et al., 1997; García-Grau et al., 2002). Additional samples would benefit from including males to provide greater gender-specific understanding of emotional eating in order to target interventions (Nguyen-Rodriguez et al., 2009). Further, many studies did not measure stress by incorporating the construct of emotional eating (Goossens, Braet, & Decaluwé 2007).

## 2.5. Research on Emotional Eating in Turkey

Research on emotional eating has been recently flourishing, and mostly studied by nutritionists and dietitians in Turkey. Işgın and her colleagues (2014), for instance, studied the relationship between eating styles regarding emotional eating, cognitive restraint and restrained eating, and body composition among teenagers aged between 14 and 19 ( $N = 508$ ). Their study did not reveal any significant relationship between emotional eating and body composition.

Other studies include investigating the effects of emotional eating on nutrition status among healthy adults (Seven, 2013), adults with bipolar disorder (Özyılmaz, 2014). In her study, Seven (2013) used Three Factor Eating Questionnaire and Emotional Eating Status Questionnaire, and revealed that boredom (62.7%), loneliness (50%) and confusion (43.6%) were the most dominant variables that increase prevalence of emotional eating. In terms of gender females were found to have significantly greater points on emotional eating ( $p < .05$ ). Özyılmaz (2014) also obtained emotional eating scores from Three Factor Eating Questionnaire and Emotional Eating Status Questionnaire, and stated that there was not a significant effect of emotional eating on macro-nutrition intakes of adults with bipolar disorder. The results of her study, regarding gender, was consistent with Seven's (2013) study as indicating significantly higher emotional eating scores on females ( $p < .05$ ).

Ünal (2016) investigated the role of emotional eating, night eating and eating concern and depression in order to predict their role on weight regain among patients who experienced bariatric surgery. Emotional Eating Subscale of Dutch Eating Behavior Questionnaire and Eating Concern Subscale of Eating Disorder Questionnaire were used to analyze data and post-surgery duration and emotional eating were revealed as main contributors of weight gain. Avcı (2017) also studied emotional eating and grazing with patients who experienced bariatric surgery with regard to their effect on biochemical parameters, comorbidities, and weight loss.

There were also studies on emotional eating within psychological scope in Turkey. Evirgen (2010), for example, investigated emotional eating and binge eating with regard to the prevalence and its' association with affect regulation by using Dutch



Emotional Eating Questionnaire in the sample of females with body mass index ranging between 19.9 and 52.07. This study, which was conducted with 204 women aged between 16 and 66, showed that higher binge eating, lack of regulating negative moods, and high BMI are positively and strongly associated with more frequent emotional eating.

In another study, Özdemir (2015) examined the role of depression, anxiety, and stress on emotional eating levels among 785 participants aged between 18 and 68. Results were also comprised from Dutch Emotional Eating Questionnaire and Depression Anxiety Stress Scales which indicated younger age (ages between 18- 24), being single, being female, higher depression, higher anxiety, and higher stress as the significant contributing variables for emotional eating.

Kubar (2017) investigated the association among attachment style, self-esteem and emotional eating among high school students. Results of this study revealed that females had significantly greater scores on emotional eating and there was a negative association between self-esteem and emotional eating.

In a correlational study, relationship between personality traits and eating was studied among university students (Altıntaş & Özgen, 2017). Altıntaş and Özgen (2017) found that emotional eating is mostly predicted by “introversion”, “emotional imbalance”, and “being closed to new ideas” in terms of personality traits. There were also two literature reviews in Turkey, mainly presenting theoretical perspectives on emotional eating (Sevinçer & Konuk, 2013; İnalkaç & Arslantaş, 2018).

## **2.6. Summary of Literature Review**

In general, theories emotional suggest that several variables such as role of emotions, personality-traits, stress and coping were significant predictors of emotional eating. In addition, some of the demographic variables such as gender and BMI were also significant predictors. Literature on the relationship between perceived stress and emotional eating variables was limited but growing within different cultures and

developmental stages. Variables of perceived stress and emotiona focused coping have a potential to affect emotional eating of adolescents.

## CHAPTER 3

### METHOD

In this chapter, methodological procedures of the study are presented in terms of research design, participants and sampling, instruments, procedures/data collection, data analysis and limitations.

#### 3.1. Research Design

This study aimed to investigate the direct and indirect effect of stress and coping on emotional eating among Turkish university students. More specifically, the role of perceived stress and emotion focused coping in predicting emotional eating behavior of Turkish preparatory students was examined. Therefore, design of this quantitative study was correlational. Correlational research design is one of the quantitative research methods that allow to analyze a relationship between two or more variables and to see the degree of relationships among these variables without manipulating them (Fraenkel, Wallen, & Hyun, 2012). In the current study, criterion variable was emotional eating. Predictor variables of the study were perceived stress and emotion focused coping.

Four instruments - Perceived Stress Scale (PSS), Coping Styles Inventory (CSI), Emotional Eating Subscale of Three Factor Eating Questionnaire (TFEQ-R21- EE), and a demographic questionnaire were administered to 742 volunteered students from two (1 state, 1 private) universities in Ankara. The student selection was based on convenience sampling procedure. After data screening, 711 participants were remained due to missing data ( $n = 19$ ) and univariate and multivariate outliers ( $n = 12$ ). Data were collected in two ways: paper-pencil survey and online survey. Participants' ages were between 18 and 31 years. Independent sample t-test was conducted in order to check whether there was a significant difference between data collection methods. Results showed no difference between them. Descriptive

statistics, independent sample t-test, bivariate correlations and simple mediation analysis with bootstrapping sampling were conducted to analyze the data.

### **3.2. Participants and Sampling**

The population of the current study consisted of preparatory class of university students. The participants were recruited from one state and one private university in Ankara. Regarding accessible population, convenience sampling procedure was used. The total 742 university students were recruited in this study. After data cleaning process completed, 31 participants were excluded from the study due to missing variables and outliers. Finally, 711 participants constituted the sample of the main study.

#### **3.2.1. Demographic characteristic of the participants**

As seen in Table 3.1, majority (64.84 %) of the 711 participants were female ( $n = 461$ ), and 35.16 % of them were male ( $n = 250$ ). The age of the participants ranged from 18 to 31 ( $M = 18.86$ ,  $SD = 1.44$ ), and majority of them were 18 years old (51.6 %). On the other, there were only one participant with age of 26 (0.1 %), 27 (0.1 %), and 31 (0.1 %). Self-reported weights in the sample ranged from 37 kg to 145 kg ( $M = 65$ ,  $SD = 14.73$ ). Self-reported heights of the participants ranged from 145 cm to 200 cm, with a mean height of 170 cm ( $SD = 9.07$ ). A body mass index (BMI) was calculated as weight in kilograms divided by height in meters squared for each participant and was found ranging from 12.73 kg/m<sup>2</sup> to 40.82 kg/m<sup>2</sup> ( $M = 22.10$ ,  $SD = 3.84$ ).

Table 3.1

*Demographic Characteristics of the Study Participants (N = 711)*

Variables		<i>n</i>	%
Gender	Female	461	64.8
	Male	250	35.2
Age	18	367	51.6
	19	217	30.5
	20	75	10.5
	21	23	3.2
BMI	12.73-18.25	62	10.6
	18.26-25.93	323	65.9
	25.94-40.82	87	11.2

### 3.3. Data Collection Instruments

Four instruments were used to collect data. These are demographic information form, Emotional Eating Subscale of Three Factor Eating Questionnaire (TFEQ - R21 - EE), Perceived Stress Scale (PSS), and emotion focused coping subscale of Coping Styles Inventory (CSI).

#### 3.3.1 Demographic information form

A demographic information form which consists of questions about gender, age, height, weight, and faculty were used (see Appendix B).

#### 3.3.2. Perceived Stress Scale (PSS)

The Perceived Stress Scale (PSS) was developed by Cohen, Kamarck and Mermelstein (1983) that measures an individual's appraisal of his or her life as stressful. PSS is a 10 item self-report scale used to measure current levels of experienced stress. Participants rate each item on a 4 point Likert scale ranging from 0 (Never) to 4 (Very often). Higher scores indicate more perceived stress. Research has shown the PSS to

be a reliable and valid instrument for the measure of perceived stress in a college population. PSS scores were obtained by reversing the scores on the four positive items; 4, 5, 7, and 8. Total scores ranged from 0 to 40, with higher scores indicating greater overall distress. In the literature, researchers found internal consistencies changed between .75 and .86 (Cohen et. al., 1983). Turkish adaptation of PSS was done by Çelik-Örücü and Demir (2007). Cronbach alpha coefficient for the Turkish version of PSS was found as .84. In the current study, Cronbach alpha coefficient was found as .87 (see Appendix C).

### **3.3.3. Coping Styles Inventory (CSI)**

The Coping Styles Inventory, which was originally derived from Folkman and Lazarus's Ways of Coping Questionnaire (1985) consists of 50 items. The scale was developed to determine the ways that individuals cope with stress in general and actual life situations. Reliabilities for the subscales reported by Folkman and Lazarus (1985) were ranging from .65 to .85.

In Turkey, Şahin and Durak (1995) developed a short version of Ways of Coping Questionnaire for university students and decreased the number of items from 50 to 30 and named the scale as Coping Style Inventory. The items of CSI are based on a 4 point Likert scale. Respondents are asked to indicate the extent to which each item describe themselves on the alternatives provided as "0% = 1, 30% = 2, 70% = 3, and 100% = 4". The CSI consists of five subscales including optimistic style (includes 5 items), self-confident style (includes 7 items), helpless style (includes 8 items), submissive style (includes 6 items), and seeking social support style (includes 4 items). The possible scores that can be obtained from the subscales ranges from 5 to 20 for optimistic style, from 7 to 28 for self-confident style, from 8 to 32 for helpless style, from 6 to 24 for submissive style and from 4 to 16 for seeking social support style. Higher scores indicate the higher usage of that specific style. The internal consistencies of the CSI calculated by Cronbach alpha were ranging from .45 to .80 for the subscales. Psychometric properties of the scale were examined in previous studies. In the current study, Emotion focused coping subscale was used, and Cronbach alpha value was found as .76 (see Appendix D).

### **3.3.4. Three Factor Eating Questionnaire (TFEQ-R21)**

The Three-Factor Eating Questionnaire (TFEQ) is a self-assessment scale, which was developed in 1985 by Stunkard and Messick, has been used widely in studies of eating behavior. Initial form of TFEQ consists of 50 items. Cappelleri and colleagues (2009) revised shorter forms regarding 21 items, and 3 domains of eating behavior with respect to cognitive restrained (CR), uncontrolled eating (UE) and emotional eating (EE).

The TFEQ-R21 asks participants to respond to 21 questions on a 4-point Likert scale for items 1–20 and on an eight-point numerical rating scale for item 21. Responses to each of the items are given a score between 1 and 4. Before calculating domain scores, items 1–16 were reverse coded. Domain scores were then calculated as a mean of all items within each domain; CR (six items), UE (nine items) and EE (six items), with higher scores being indicative of greater CR, UE and EE. The Cronbach's coefficients were found to be .84 for the UE domain and .92 for the EE domain, and .70 for CR domain (Cappelleri, 2009).

Turkish adaptation of TFEQ-R21 was conducted by Karakuş, Yıldırım, and Büyüköztürk (2016). Validity of TFEQ-R21 has been tested with confirmatory factor analysis, correlations between the subscales and item analysis. The internal consistency of TFEQ-R21 has been tested with Cronbach's alpha and McDonald's structural reliability coefficients. The Cronbach's coefficients were found to be .78 for the UE domain and .87 for the EE domain, and .80 for CR domain (Karakuş, Yıldırım, & Büyüköztürk, 2016). Confirmatory factor analysis showed that the structure of TFEQ-R21 is identical with the original scale (TREQ-R21, Cappelleri et. al., 2009). In the current study, Cronbach alpha coefficient was found as .93 (see Appendix E).

### **3.4. Data Collection Procedure**

After having an approval from Middle East Technical University, Human Subjects Ethics Committee (see Appendix A) data collection was started. The instruments were administered in two-ways. Firstly, they were administered in the classroom by the researcher, and participants filled out the paper-pencil instruments during the class hour. With respect to feasibility, online data collection was also used as a collateral data collection method to increase the number of participants. Online survey, prepared by using Google-Forms, were announced in Preparatory School web page and flyers were pinned to Preparatory School's boards. Online survey was also announced via social media groups which are related to preparatory students. In the light of volunteered participation and ethical procedures, informed consent forms were given to the participants. Honest participation, significance of answering all of the items, and confidentiality of the collected data was also emphasized by the researcher both verbally and written. Implementation of the data collection procedure lasted approximately half an hour. Online data and paper-pencil survey data were compared according to participants' emotional eating behavior responses, and no difference was found.

### **3.5. Description of Variables**

*Emotional eating* indicates the emotional eating frequency by using the scores on emotional eating subscale of TFEQ-R21.

*Perceived stress* refers to the sum scores as measured by PSS-10.

*Emotion focused coping* sum scores as measured by the emotion focused coping subscale of CSI.

*Gender* indicates sexes of the participant in a dichotomous way with the categories of female (0) and male (1).



*Body mass index* indicated the calculation in terms of weight in kilograms divided by height in meters squared for each participants.

### **3.6. Data Analysis**

Several procedures were followed in order to analyze the data of the present study. In the first step, data screening was performed. Then assumption testing was completed. In the second step, descriptive statistics regarding criterion and predictor variables were carried out to summarize the data. In the final step, simple mediation analysis was conducted in order to examine the direct and indirect effects of perceived stress on emotional eating through emotion focused coping of Turkish university students by using SPSS PROCESS Macro (Hayes, 2012). In addition, alpha level of .05 was set as criterion for statistical significance of analyses in the study.

### **3.7. Limitations of the Study**

There are some limitations of the current study.

First of all, random sampling was not used which is an obstacle for generalization. Seven hundred and eleven university students in Ankara city might not be sufficient with regard to provide representativeness. All of the participants were selected from preparatory school students regarding transition to university process. Further, since the sampling was not randomized, female participants' percentage (64.84%) was higher than male participants'. One of the possible reasons of this unbalanced gender distribution might be male participants' reluctance to participate in survey studies. Besides, all of the instruments that used in the current study were self-report. Based on the characteristics of self-reports, results need to be considered carefully with respect to social desirability and fakeability. Lastly, academic variables such as GPA to evaluate the effects of specific stressor and the other factors that interact with stress in order to predict a vulnerability to emotional eating did not included in the study.

## CHAPTER 4

### RESULTS

This chapter presents the results of the main analyses of the study. In the first part, the preliminary analyses and examination of regression analysis assumptions were presented. In the second part, descriptive statistics of predictor and criterion variables were reported. In the third part, the bivariate correlations of the predictor and criterion variables were demonstrated. In the final part, simple mediation analyses results were presented.

#### 4.1. Preliminary Analyses of the Study

Before conducting a simple mediation analysis; assumptions of missing data, absence of univariate outliers, the sample size, and normality were checked (Tabachnick & Fidell, 2013). Data were examined regarding missing data and false data entering through controlling frequencies, minimum and maximum values of the variables. Scores and frequencies were determined whether or not they were within the range of possible scores. Cases including missing data more than 10% were excluded. In this study, 19 cases were deleted. Rest of the cases with missing values ( $N = 14$ ) in paper-pencil data collection were determined and replaced by mean scores via SPSS ( $N = 711$ ).

Since two different methods of data collection was applied, online survey and paper-pencil survey, whether data gathering method made any statistically significant difference on the study variables was also checked. Independent samples t- tests were applied to examine the effect of different data gathering methods on the study variables. The analysis revealed that data gathering method did not suggest a significant difference on perceived stress ( $t(709) = -1.68, p > .05$ ) and emotion focused coping ( $t(709) = .12, p > .05$ ), and emotional eating ( $t(709) = .81, p > .05$ ).

Besides, prior to the further analyses, gender difference was checked through independent sample t-test in terms the variables of the study. Results of independent sample t-test indicated that there was a significant difference in the emotional eating scores of female participants ( $M = 13.52, SD = 5.42$ ) and male participants ( $M = 10.28, SD = 4.76$ );  $t(569.97) = 8.27, p < .01$ . BMI was also found to be significantly associated with emotional eating scores both for female ( $r = .16, p < .05$ ), and male participants female ( $r = .12, p < .05$ ). Therefore participants' BMI were included as covariate in order to control their effects on emotional eating scores.

Absence of outliers were checked by the standardized items scores and values greater than  $\pm 3.29$  were evaluated as univariate outliers (Tabachnick & Fidell, 2013), and eight cases were excluded from the data. Multivariate outliers were examined by Mahalanobis distance at  $p < .001$  criterion. After excluding these total four outliers from the study, data from the remaining 711 participants were used for the main analysis. The sample size of 711 with two predictor variables was accepted as adequate, because it was beyond the required sample size according to criterion of  $N \geq 50 + 8m$  (Tabachnick & Fidell, 2013).

Table 4.1

*Skewness and Kurtosis*

	Skewness		Kurtosis	
	<i>Statistics</i>	<i>S.E.</i>	<i>Statistics</i>	<i>S.E.</i>
Body Mass Index	1.20	.09	2.43	.18
Percived stress	.15	.09	-.18	.18
Emotion Focused Coping	-.01	.09	-.36	.18
Emotional Eating	.55	.09	-.83	.18

For the univariate normality assumption, skewness and kurtosis values were checked, and it was seen that absolute value of skewness and kurtosis results were not greater than  $\pm 3$  (see table 4.1.). Histograms and Q-Q plots were also checked in order to control univariate normality, and results did not represent a serious deviance from a normal distribution (see Figures 2 - 7).

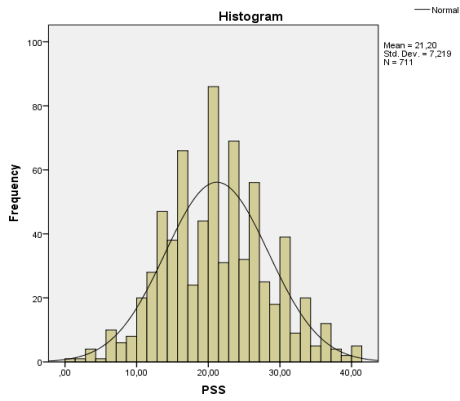


Figure 2: Histogram for perceived stress

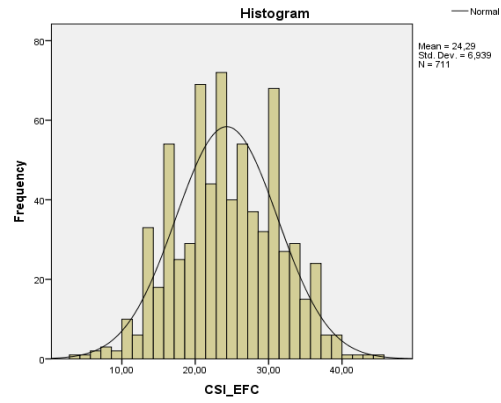


Figure 3: Histogram for emotion focused coping

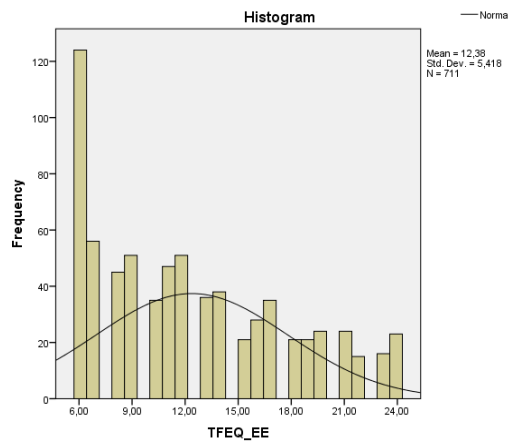


Figure 4: Histogram for emotional eating

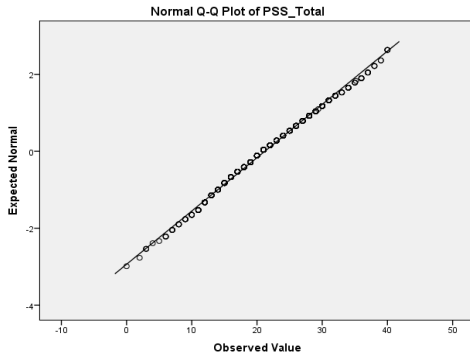


Figure 5: Q-Q Plot of perceived stress

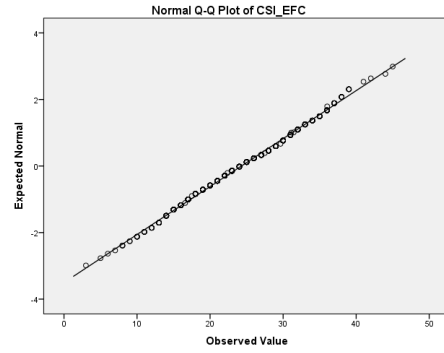


Figure 6: Q-Q Plot of emotion focused coping

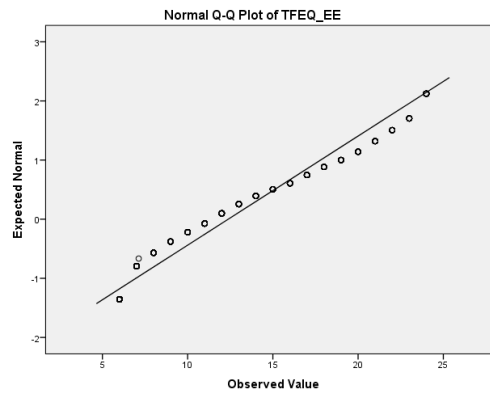


Figure 7: Q-Q Plot of emotional eating

#### 4.1.1. Assumption Check of the Variables of the Study

Before conducting the mediation analysis on emotional eating; assumptions of homoscedasticity, multivariate outliers, normality of residuals, independence of errors, type of variable linearity and absence of multicollinearity (Tabachnick & Fidell, 2013) were checked.

In the first place, types of variables need to be categorical as being two levels or continuous. Therefore, demographic variable of gender was dummy coded (0 = Females, 1 = Males). Other variables regarding emotional eating, perceived stress, and emotion focused coping were continuous variables.

*Normality of residuals assumption* was examined by controlling histogram and P-P plot of regression standardized residual. Figure 8 illustrated the shape of histogram approximately follow the shape of the normal curve, and P-P plotted residuals followed approximately 45-degree line, indicating that errors are normally distributed.

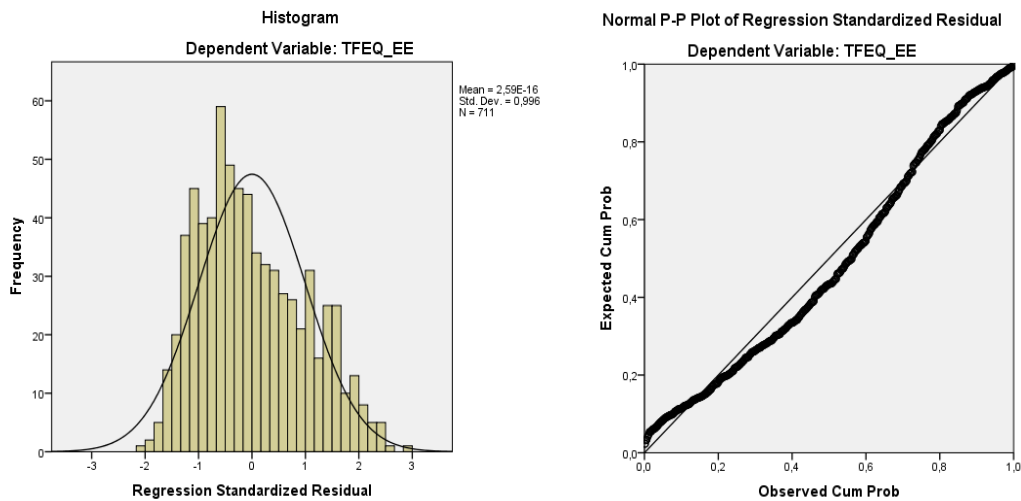


Figure 8. The histogram of standardized residuals and the normal probability plot for emotional eating

In the second step, scatter plots of regression standardized predicted values were performed in order to check *the homoscedasticity assumption*. As seen in Figure 9, a slight systemic pattern was indicated in terms of spreading of scatter plots. Hence, this pattern might have seen due to the structure of data which was collected via self-report with four point Likert scale, in six items to assess emotional eating. On the other hand, due to the large sample size of the current study, Tabachnick and Fidell (2013) assumed that a slight heteroscedasticity represents particle effect on significance of analysis.

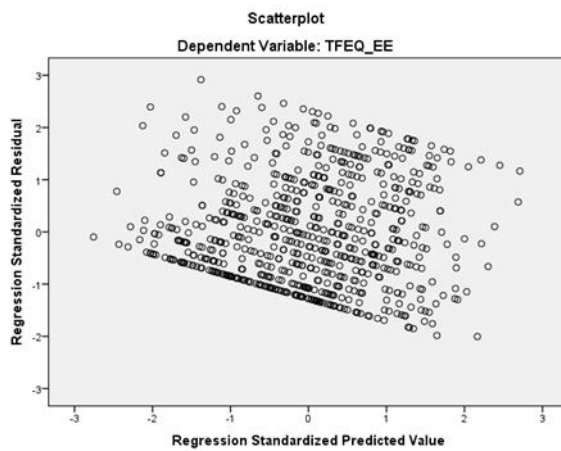


Figure 9. The scatterplot of regression standardized predicted values for emotional eating

In the next step, *assumption of independence of errors* was examined. Tabachnick and Fidell (2013) stated that value of Durbin-Watson coefficient test should be between 1.50 and 2.50. In the present study, analysis for emotional eating produced value of 2.07 for Durbin-Watson.

In order to examine *the absence of multicollinearity assumption*, correlations of predictor variables, variance influence factor (VIF) and tolerance values were checked. Tabachnick and Fidell (2013) suggested that correlations of predictor variables should be less than .90. Menard (2002) specified that the VIF value must be less than 4 and tolerance value must be more than .20. For the current study, among predictor

variables, correlations were not higher than .27 and VIF values were not higher than 1.65. Tolerance values were examined and all of the values were higher than .20.

For the last step, in order to examine *assumption of influential observations*, Mahalanobis distance, Cook's distance, Centered leverage statistics were calculated. According to Tabachnick and Fidell (2013), Cook's distance and standardized DFBETA Intercept values should not be higher than 1. The analysis for emotional eating produced values  $< 1$ . Multivariate outliers were examined by Mahalanobis distance at  $p < .001$  criterion. After excluding these total 4 multivariate outliers from the study, data from the remaining 711 participants were used for the main analysis. Stevens (2009) stated that Centered Leverage value calculated by using a formulation of  $3(k+1)/n$  (in which  $k$  indicates number of predictors,  $n$  indicates number of participants). Lastly, Mahalanobis distance, Cook's distance and standardized DFBETA Intercept values were confirmed for the assumption of multivariate outliers.

#### **4.2. Descriptive Statistics of the Variables of the Study**

Means and standard deviations of the predictor and criterion variables were presented in Table 4.2 with the potential and actual range.



Table 4.2

*Means and Standard Deviations of the Predictor and Criterion Variables (N = 711)*

Descriptive Statistics	<i>M</i>	<i>SD</i>	Potential Range	Actual Range
Emotional eating				
Female	13.52	5.42	6-24	6-24
Male	10.28	4.76	6-24	6-24
Perceives stress				
Female	21.53	6.86	0-40	0-40
Male	20.59	7.82	0-40	0-40
Emotion focused coping				
Female	25.22	6.86	0-72	3-45
Male	22.55	6.76	0-72	3-45

At first glance, descriptive statistics indicated that the participants reported moderate levels of emotional eating in female ( $M = 13.52$ ,  $SD = 5.42$ ), and male participants ( $M = 10.28$ ,  $SD = 4.76$ ). Hence females tend to eat more emotionally. Among predictive variables, both female ( $M = 21.53$ ,  $SD = 6.86$ ), and male participants ( $M = 20.59$ ,  $SD = 7.82$ ) reported moderate levels of perceived stress. However, female ( $M = 25.22$ ,  $SD = 6.86$ ), and male participants ( $M = 22.55$ ,  $SD = 6.76$ ) reported low to moderate emotion focused coping. Results indicated higher scores for female participants in terms of predictor variables of perceived stress and emotion focused coping.

### 4.3 Bivariate Correlations among Study Variables

Pearson Product Correlation Coefficients between quantitative criterion and predictor variables were represented in Table 4.3. First of all, the criterion variable of emotional eating scores of female ( $r = .13$ ,  $p < .01$ ), and male participants ( $r = .19$ ,  $p < .01$ ) were significantly and positively correlated with perceived stress scores. In the second place,

the criterion variable of emotional eating scores of female ( $r = .18, p < .01$ ), and male participants ( $r = .16, p < .05$ ) were significantly and positively correlated with emotion focused coping scores. According to Cohen (1988), the results of the current study showed a weak to moderate correlation. With regard to the relationship between emotional eating and perceived stress, the association was relatively stronger among male participants. On the other hand, regarding the association between emotional eating and emotion focused coping female participants had higher scores.

The correlation between perceived stress and emotion focused coping was found significant for both female ( $r = .46, p < .01$ ), and male participants ( $r = .41, p < .01$ ). According to Cohen (1988), this result can be stated as a moderate to strong correlation. Hence, as stated above multicollinearity assumptions was not violated.

Table 4.3

*Bivariate Correlations among the Variables of the Study (N=711)*

Variables	1	2	3
1. Emotional Eating	-	.13**	.18**
2. Perceived Stress	.19**	-	.46**
3. Emotion Focused Coping	.16*	.41**	-

*Note.* Intercorrelations for female participants are presented above the diagonal, intercorrelations for males are presented below the diagonal.

\*\*  $p < .01$

\*  $p < .05$

#### **4.4. Results of Mediaton Analysis**

Considering the second hypothesis of the study, a mediational model, in which emotion focused coping mediated the relationship between perceived stress and emotional eating, was tested. The statistical approach to conduct mediation analysis with Bootstrap sampling method was carried out (Preacher & Hayes, 2004). Different than the Baron and Kenny's (1986) traditional mediational method, Preacher and

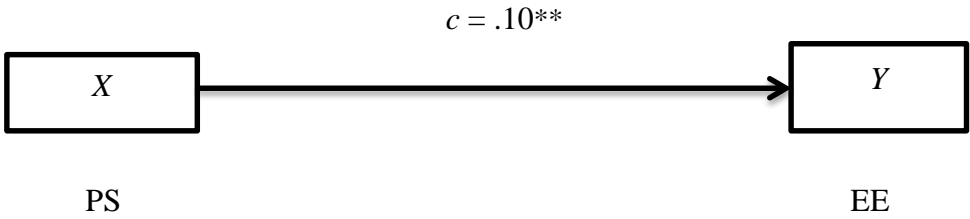
Hayes (2004) enhanced an alternative method that promotes the statistical significance of indirect (mediated) effects in addition to the direct effect via bootstrapping.

Indirect effects were assessed regarding bootstrapped distribution, in which large number of resamples were produced from the original data set. In order to assign the statistical significance of the indirect effects, bootstrap confidence intervals (CIs) were computed. Significance of the mediation effects were examined through bootstrapped (samples = 5000) standard errors regarding 95% confidence intervals. If the value of zero did not fall among the range of CI, the mediational effect was accepted as significant (Hayes, 2007).

The simple mediational models were represented in diagrams shown in Figure 10 and Figure 11. The proposed mediation hypothesis was examined a path model implemented with the PROCESS SPSS Macro (Hayes, 2012). In order to establish more accurate and powerful statistical estimates than the conventional method to test mediating effects, the bootstrapping analysis was developed (Hayes, 2007).

The effect of X (predictor) on Y (criterion) refers to “total effect” and can be seen as path  $c$  in Model A. The effect of X on Y may be processed by some intervening variables (M). In this model (Model B), the coefficient that predicts M from X is called as  $a$ , the coefficient predicting Y from M is called as  $b$ . Path  $c'$  refers to the “direct effect” of X on Y. The product of path coefficients ( $a*b$ ) refers to “indirect effect” of X on Y through M. By using bootstrapping analysis both the direct effect of X on Y, and the indirect effects of the X on Y through the paths of the mediator can be determined (Hayes, 2007). In this step, simple mediational model (Model 4; Hayes, 2013) was used to analyze the data.

Model A: Total Effect of X on Y ( $N_{female} = 461$ )



Model B: A direct effect of X on Y ( $c'$ ) and indirect effects of X on Y through M ( $N_{female} = 461$ )

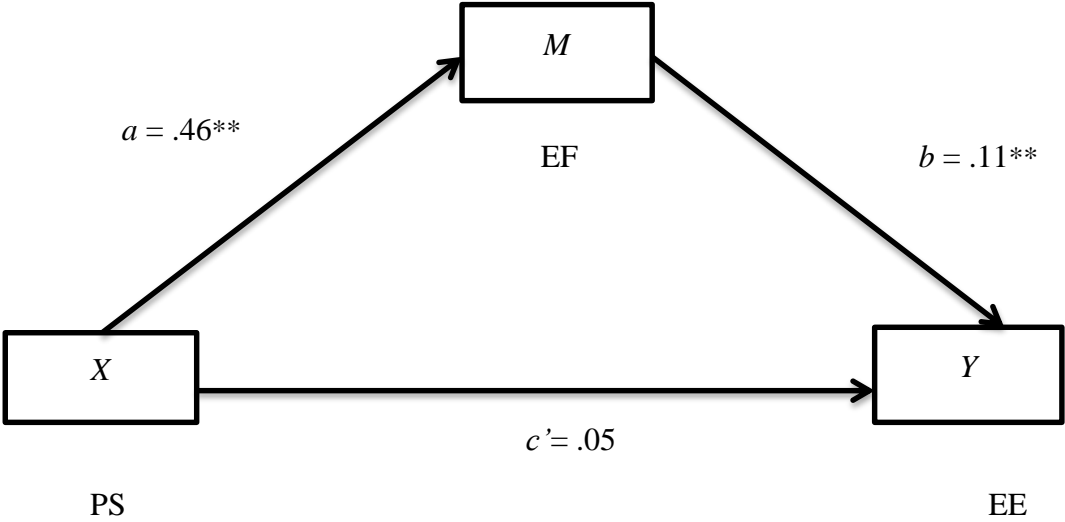


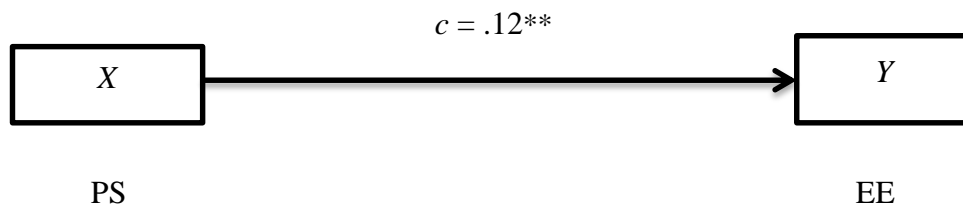
Figure 10: Total Effect of X on Y (Model A), Simple Mediation Model (Model B) among Female Participants

Note.  $** p < .001$   
 $* p < .05$

- X: Perceived Stress (PS)
- M: Emotion focused coping (EFC)
- Y: Emotional eating (EE)

As seen in Figure 10, perceived stress was found as a significant predictor of emotion focused coping for female participants ( $B = .46, SE = .03, p < .001$ ). Hence, the direct effect of perceived stress on emotional eating were not found to be significant ( $B = .05, SE = .02, 95\% CI = -.0329; .1231$ ) because zero did fall within the range of the confidence intervals. In terms of the indirect (mediated) effects, the bootstrap analysis confirmed the mediator role of emotion focused coping ( $B = .05, SE = .02, 95\% CI = .0341; .1900$ ) in the relationship between perceived stress and emotional eating since zero did not fall within the range of the confidence intervals (see Figure 10). In addition, the total effect of perceived stress on emotional eating ( $B = .10, SE = .03, 95\% CI = .0269; .1665$ ) was significant. The model explained 9 % of variance in emotional eating,  $F_{(3, 457)} = 15.12, p < .001$ . Results indicated that perceived stress had significant effect on emotional eating via the indirect (mediating) effect of emotion focused coping among female participants. Since the effect of BMI did not found to be significant, it was not integrated into the model ( $p > .05$ ).

Model C: Total Effect of X on Y ( $N_{male} = 205$ )



Model D: A direct effect of X on Y ( $c'$ ) and indirect effects of X on Y through M ( $N_{male} = 250$ )

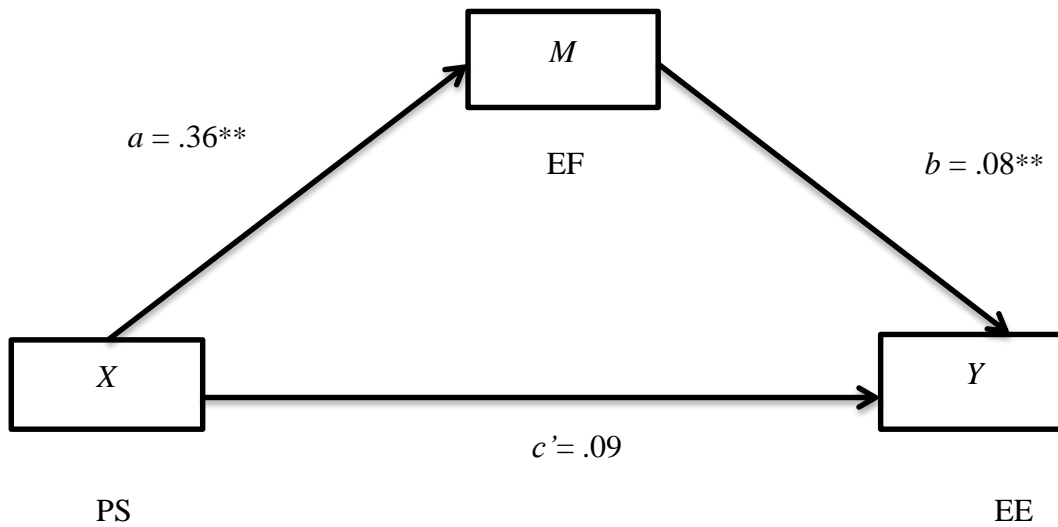


Figure 11: Total Effect of X on Y (Model A), Simple Mediation Model (Model B) among Male Participants

Note.  $** p < .001$

\*  $p < .05$

X: Perceived Stress (PS)

M: Emotion focused coping (EFC)

Y: Emotional eating (EE)

As seen in Figure 11, perceived stress was found as a significant predictor of emotion focused coping for male participants ( $B = .41, SE = .02, p < .001$ ). Besides, the direct effect of perceived stress on emotional eating were not found to be significant ( $B = .09, SE = .04, 95\% CI = .0209; .1700$ ) since zero did not fall within the range of the confidence intervals. Nevertheless, the indirect (mediated) effect of the bootstrap analysis was not confirmed the mediator role of emotion focused coping ( $B = .03, SE = .02, 95\% CI = -.0132; .0547$ ) in the relationship between perceived stress and emotional eating since zero did fall within the range of the confidence intervals. All in all, the total effect of perceived stress on emotional eating ( $B = .12, SE = .04, 95\% CI = .0454; .1929$ ) was significant. The model explained 7 % of variance in emotional

eating,  $F_{(3, 246)} = 6.85, p < .001$ . Results indicated that perceived stress had significant effect on emotional eating hence the indirect (mediating) effect of emotion focused coping on emotional eating was not found to be significant among male participants. Since the effect of BMI did not found to be significant, it was not integrated into the model ( $p > .05$ ).

## **CHAPTER 5**

### **DISCUSSION**

This chapter presents the conclusions, and implications for practices of the current study and recommendations for future studies.

#### **5.1 Conclusions**

The main goal of the study was to investigate the role of perceived stress and emotion focused coping on emotional eating among Turkish university students. Specifically, to what extent does emotion focused coping mediate the relationship between perceived stress and emotional eating in a sample of preparatory school students was examined.

As transition to university was seen as be one of the stressful life experiences due to major life changes like academic requirements, new social demands and conflicts, accompanied with the newly won freedom and responsibility (Robbins, 2007; Penaforte et al., 2016; El Ansari et al., 2013), preparatory school students as a symbol of transition to university were considered to be under for risk having emotional eating due to the increased number of stressors, perceived stress, limited adaptive coping repertoire (Spoor et al., 2007; Wilson et al., 2015).

With respect to the research question that explored the relationship between perceived stress and emotional eating directly, and through mediational (indirect) effect of emotion focused coping style of Turkish university students, the simple mediation analysis with bootstrapping method was conducted regarding gender. Results revealed that there was not a significant direct effect of perceived stress on emotional eating among females. Hence, usage of emotion focused coping with regard to perception of stress, significantly resulted as an increase of emotional eating among females, which also laid emphasis on the mediational effect of maladaptive coping styles. As Endler



and Parker (1990) stated emotion focused coping was mostly preferred by females, and found to be related with development of disordered eating within both non-clinical and clinical samples (Spoor et al., 2007; Sullkowski et al., 2011).

Perceived stress appeared to be significant predictors of emotional eating among male Turkish university students. This finding was consistent with the previous studies which emphasized that higher levels of perceived stress were found to be related with emotional eating in youth regardless of gender (Nguyen-Rodriguez et al., 2008; Wilson et al., 2015). Even though the majority of the studies on psychological aspects in eating behavior and disorders were demonstrated with the female participants, males might also considered as a risk group in terms of development of disordered eating. Besides, in addition to the inconsistent results of gender in emotional eating studies, this study also showed the importance of including male participants.

Results of the current study did not reveal a significant indirect (mediator) effect of emotion focused coping in the association between perceived stress and emotional eating among male participants. One possible explanation might that among females emotion focused coping was used more frequently, and considered as an maladaptive style of coping (Monat et al., 2007), it was also found to be associated with disordered eating. All in all, in the scope of emotional eating, as a predisposition of disordered eating, previous results confirmed the association between emotion focused coping and emotional eating (Fryer et al., 1997; García-Grau et al., 2002).

Results revealed that emotional eating differs significantly with respect to gender. In other words, female participants reported higher scores on emotional eating in the current study, which was consistent with the results of the some of the previous research (Wansink et al., 2003; Spoor et al., 2007; Thompson & Romeo, 2015).

Since the effect of BMI was significant, it was also controlled by including it into the model as a covariate. Suplementary analysis was conducted in order to enlighten the possible moderator effect of BMI. Hence, results were not found to be significant. These results regarding BMI were consistent with another study that examined the relationship between stress and emotional eating through the mediating role of eating

dysregulation (Tan & Chow, 2014). Tan and Chow (2014) found significant effect of gender on emotional eating, hence it did not contribute to the model significantly. Besides, contemporary emotional eating research did not focus on the role of BMI since emotional eating occurs regardless of being under-normal-overweight (Geliebter & Aversa, 2003).

Although initial studies on emotional eating started with clinical samples including obese participants (Kaplan & Kaplan, 1957), in the scope of more current studies that demonstrated the evidence of emotional eating among non-clinical samples, it comes into prominence nowadays (Geliebter & Aversa, 2003). The current study also provided support for the presence of emotional eating behaviors in a non-clinical sample with a direct association between emotional eating and perceived stress, and also indirect relation between emotional eating and perceived stress through emotion focused coping. The conceptualization of emotional eating regarding perceived stress and emotion focused coping needs to be evaluated within their impact on psychological and physical health implications.

## **5.2. Implications for Practice**

In contrast to adulthood, in which maladaptive eating behaviors started to become permanent vigorously, formative years of late adolescence might play critical role on health behaviours to allow them to be more adaptable (Sierra-Baigrie, Lemos-Giráldez, & Fonseca-Pedrero, 2008). On the one hand, increased risk factors of maladaptive eating have been associated with adolescence (Hasnain et. al., 2008), on the other hand, adolescence has been considered as an opportunity time for prevention and early intervention for eating disorders which was found to be related with emotional eating (e.g. binge eating disorder and night eating syndrome; Masheb & Grilo, 2006; Meule et al., 2014). Since a growing body of literature posited the acceleration of risk factors of disordered eating in adolescence, factors associated with the onset of this issue gained importance (Vella-Zarb & Elgar, 2009).

Emotional eating has importance with regard to physical and psychological health implications. For example, emotional eating was found to be related with perceived

stress (Wilson et al., 2015), higher weight status (Geliebter & Aversa, 2003), eating disorders (Masheb & Grilo, 2006; Sullkowski et al., 2011; Meule et al., 2014). Given that emotional eating was associated with numerous psychological and health consequences, it is important to examine different factors that may lead to emotional eating. Therefore, counselors and practitioners who work with emotional eaters could consider targeting individuals' perceived stress and coping skills when designing interventions.

Psychological counselors who work with emotional eaters could consider targeting individuals' perceived stress and coping styles while designing and utilizing prevention/intervention programs regarding more adaptive ways to cope with perceived stress. Lazarevich, Camacho, Alva, and Zepeda (2016) emphasized the importance of teaching effective coping strategies along with nutrition education at universities in term of health education programs. Since emotional eating might be considered as a gateway for both psychological and physical disturbances such as depression, disordered eating, type 2 diabetes, and obesity, psychological counseling services of universities started to place more importance on emotional eating concern in US (Ballas & Nelson, 2018). For instance, Binghamton University and University of Notre Dame in Rochester give special importance to eating awareness facilities within their counseling services by helping the students to maintain a healthy lifestyle, and sustain their academic and personal development throughout their university years and beyond.

Understanding the effects of university students' perceived stress and the ways they use for coping gains significance within the scope of the current study. After increasing awareness on emotional eating with respect to perceived stress and coping, and obtaining risk groups, intervention programs available in universities in US can be adapted in Turkish university culture. For example, in tune with the proactive approach to reduce effect of perceived stress on emotional eating as suggested by the previous research (Wilson et al., 2105) psychological counseling center of University of California, Davis sustains a program on emotional eating called "H•E•A•L: Hope for Change, End Emotional Eating, Acceptance, Live in the Moment" that aims teaching skills to their students in order to change their eating patterns with regard to food and

emotions, and stress. After screening for stress during transition to university (Wilson et al., 2015), five main components as mindfulness, stress tolerance, acceptance, emotion regulation strategies, and communication skills are integrated to program in order to overcome emotional eating (University of Carolina Student Health and Counselling Center, 2018). Programmes for understanding the effects of stress and ineffective coping with emotional eating has focused on improving emotion knowledge, self-monitoring emotions, and alternative effective strategies to cope with stress and emotional eating such as workshops on healthy living, stress management program with the integration of make exercise enjoyable and healthy eating on a budget (Macht & Simons, 2011; Wilson et al., 2015). Besides, integration of more frequent usage of problem focused coping regarding active plan making might prevent the frequent usage of emotion focused coping which might lead to misunderstood emotional hunger cues instead of physical hunger cues (Gavin, 2014). Group counseling and psychoeducational group programmes can also be merged for university students to integrate their university experiences and to cope with the stresses that might lead to emotional eating.

### **5.3. Recommendations for Future Studies**

Although findings gave support for the proposed mediational model, previously addressed limitations provided a basis for recommendations for the future research with adjustments to measures and methodological improvements.

First of all, self-reported emotional eating may reflect beliefs about emotional eating rather than one's actual eating behavior when being emotional (Evers, Ridder, & Adrianse, 2009). Therefore, supplementary data collection methods such as keeping food diaries might be useful to consider other determinants of emotional eating such as type of food (comfort food or not) and caloric intake (Kandiah et al., 2006; Evers et al., 2009; Turner et al., 2005).

Wilson and her colleagues (2015) suggested examining the factors that lead to stress. Integrating stress factors might have advantage on implications on emotional eating in order to prevent or take precautions of these factors. Not only adaptive coping

strategies but also coping resources and repertoire could be integrated in both assessment and proactive processes. Further, in order to evaluate the prospective effectiveness of these processes, longitudinal studies can be designed (Wilson et al., 2015).

Previous studies suggested that stress interacts with other factors to predict a vulnerability to emotional eating. For instance, academic variables such as GPA might be included in order to evaluate the effect of more specific stressors such as academic stress. In her study (Bennett et al., 2013) have found a bidirectional relationship between academic stressors such as anxiety of having better grades and emotional eating among American university students. Since the sample of the current study was composed of preparatory students, GPA, as one of the indicative variable of academic success and/or stressor, cannot be included to the study.

Lazarus and Folkman (1984) emphasized the pervasive role of social functioning in human adaptation within the interpersonal relationships. Previous studies were also showed the influence of parenting and parents' eating styles (Lauzon-Guillain et al., 2008), and peer influence (Thompson et al., 2017) on emotional eating behaviour in adolescence. Therefore, interpersonal relationships such as effect of parental behavior (Lauzon-Guillain et al., 2008) and peer influence (Thompson et al., 2017) on emotional eating might be included to data collection process in order to gain a comprehensive understanding, and identify risk factors on developing emotional eating patterns (Snoek et al., 2007). Accordingly, prevention/intervention programmes can be expanded via integrating not only familial resemblance (Lauzon-Guillain et al., 2008), but also influence of relationships with peers (Thompson et al., 2017).

Lastly, Turkish youth can be integrated to comparisons in a cross-cultural context such as the common parts and differences among eastern and western cultures. Given that previous cross-cultural comparisons such as between Japanese and British cultures (Walter & Matoba, 1999), or in between Danish and Spanish cultures (Van Strien et al., 2016) might be expanded by including Turkish sample with respect to the contemporary studies on emotional eating across cultures.

All in all, since findings revealed that emotional eating was associated with perceived stress and emotion focused coping, considering to provide more adaptive coping skills instead of turning to food at stressful conditions is important. Besides, since psychological and physical health behaviors begin to harden in adolescence and may be transferred into the adulthood, learning more adaptive coping styles during this critical developmental is an essential issue (Nguyen-Rodriguez et al., 2008).

## REFERENCES

- Adrianse, M. A., de Ridder, D. T., & Evers, C. (2011). Emotional eating: eating when emotional or emotional about eating? *Psychological Health*, 26(1), 23-29.
- Annesi, J. J., & Marenco, N. (2015). Improvement in emotional eating associated with an enhanced body image in obese women: Mediation by weight-management treatments' effects on self-efficacy to resist emotional cues to eating. *Journal of Advanced Nursing* 71(12), 2923-2935.
- Ashcroft, J., Semmler, C., Carnell, S., van Jaarsveld, C.H., & Wardle, J. (2008). Continuity and stability of eating behaviour traits in children. *European Journal of Clinical Nutrition*, 65(8), 985-990.
- Artııcı, G. (2013). Yeme bozuklukları. [Eating Disorders] *Sağlıkta Adres Başkent*, 13, 37-39.
- Ballas, P. & Nelson, G. A. (2018). Retrieved from: <https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=1&contentid=4517>
- Baltaş, Z., & Baltaş, A. (2013). *Stres ve Başa Çıkma Yolları [Stress and Coping]*. İstanbul: Remzi.
- Baumeister & Heatherton (1991). Binge eating as escape from self-awareness. *Psychological Bulletin*, 110, 86-108.
- Bennett, J., Schwarz-Barcott, D. & Greene, G. (2013). Perceptions of emotional eating behavior. A qualitative study of college students. *Appetite*, 60(1), 187-192.
- Beukes, M., Walker, S., & Esterhuysen, K. (2009). The role of coping responses in the relationship between perceived stress and disordered eating in a cross-cultural sample of female university students. *Stress and Health*, 26(4), 280-291.

- Boyce, J. A., & Kuijer, R. G. (2015). Perceived stress and freshmen weight change: The moderating role of body mass index. *Physiology and Behaviour*, 139, 491-496.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267-283.
- Cassidy, T. (1999). *Stress, Cognition and Health*. London: Routledge.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385-396.
- Çelik-Örücü, M., & Demir, A. (2007). Psychometric evaluation of perceived stress scale for Turkish university students. *Stress and Health*, 25, 103-109.
- Eldredge, K. L. & Agras, W. S. (1996). Weight and shape overconcern and emotional eating in binge eating disorder. *International Journal of Eating Disorders*, 19(1), 73-82.
- El Ansari W., et al. (2011). Does the association between depressive symptomatology and physical activity depend on body image perception? A survey of students from seven universities in the UK. *International Journal of Environmental Research on Public Health*, 8(2), 281-299.
- El Ansari W., Labeeb S., Moseley L., Kotb S., & El-Houfy A. (2013) Physical and psychological well-being of university students: survey of eleven faculties in Egypt. *International Journal Preventative Medicine Research*, 4(3), 293-310.
- Endler, N. S., & Parker, J. D. A. (1990). Multidimensional assessment of coping: A critical evaluation. *Journal of Personality and Social Psychology*, 58, 844-854.
- Evans, G. W. & Cohen, S. (1987). Environmental stress. In D. Stokols & I. Altman (Eds.), *Handbook of Environmental Psychology*. NY: John Wiles & Sons.
- Evers, C. De Ridder, D. T., & Adrianse, M. A. (2009). Assessing yourself as an emotional eater: Mission impossible? *Health Psychology American Psychological Association*, 28(6), 717-725.



- Farag, N. H., Moore, W. E., Lovallo, W. R., Mills, P. J., Khandrika, S., & Eichner, J. E. (2008). Hypothalamic-pituitary-adrenal axis function: Relative contributions of perceived stress and obesity in women. *Journal of Women's Health, 17*(10), 1647-1655.
- Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*(1), 150-170.
- Fryer, S., Waller, G., & Kroese, B.S. (1997). Stress, coping, and disturbed eating attitudes in teenage girls. *International Journal of Eating Disorders, 22*, 427-436.
- Ganley, R. M. (1989). Emotion and eating in obesity: A review of the literature. *International Journal of Eating Disorders, 8*, 343-361.
- García-Grau, E., Fusté, A., Miró, A., Saldaña, C., & Bados, A. (2002). Coping style and disturbed eating attitudes in adolescent girls. *International Journal Of Eating Disorders, 32*(1), 116-120.
- Gavin, M. L. (2014). Retrieved from: <https://kidshealth.org/en/teens/emotional-eating.html?ref=search&WT.ac=msh-p-dtop-en-search-clk>.
- Geliebter, A. & Aversa, A. (2003). Emotional eating in overweight, normal weight, and underweight individuals. *Eating Behavior, 3*(4), 341-347.
- Gravetter, F. J. & Wallnau, L. B. (2013). *Statistics for Behavioral Sciences*. Canada: Wadsworth.
- Greeno, C. G. & Wing, R. R. (1994). Stress-induced eating. *Psychology Bulletin, 115*(3), 444-464.
- Goossens, L., Braet, C., & Decaluwé, V. (2007). Loss of control over eating in obese youngsters. *Behaviour Research and Therapy, 45*(1), 1-9.
- Hamilton, V. & Warburton, D. M. (1979). *Human stress and cognition: An information processing approach*. NY: John Wiley.

- Hasking, P. A. (2006). Reinforcement sensitivity, coping, disordered eating and drinking behaviour in adolescents. *Personality and Individual Differences*, 40, 677-688.
- Hasnain, M., Vieweg, W. V., Hettema, J. M., Colton, D., Fernandez, A., & Pandurangi, A. K. (2008). The risk of overweight in children and adolescents with major mental illness. *Southern Medical Journal*, 101, 367-372.
- Hayes, F. A. (2007). *Introduction to mediation, moderation and conditional process analysis: A regression based approach*. NY: Guilford.
- Heatherton, T. F., Herman, C. P., & Polivy, J. (1991). Effects of physical threat and ego threat on eating behavior. *Journal of Personality and Social Psychology*, 60, 138-143.
- Herman, C. P. & Polivy, J. (1975). Anxiety, restraint, and eating behavior. *Journal of Abnormal Psychology*, 84(6), 66-72.
- Işgın, K., Pekmez, T., Çetin, C., Kabasakal, A., Demirel, Z. B., & Besler, H. J. (2014). An evaluation of the relationship across emotional eating, uncontrolled eating, cognitive restraint behaviours and body compositions in adolescents. *Journal of Nutrition and Dietetics*, 42(2), 125-131.
- İnalkaç, S, Arslantaş, H. (2018). Duygusal Yeme [Emotional Eating]. *Arşiv Kaynak Tarama Dergisi*, 27 (1), 1-2.
- Jones, F. & Bright, J. (2001). *Stress: Myth, theory and research*. London: Pearson Education Limited.
- Kandiah, J., Yake, M., Jones, J., & Meyer, M. (2006). Stress influences appetite and comfort food preferences in college women. *Nutrition Research*, 26, 118-123.
- Kaplan, H. L. & Kaplan, H. S. (1957). The psychosomatic concept of obesity. *Journal of Nervous and Mental Disease*, 125, 181-201.
- Karakuş, S. Ş., Yıldırım, H., & Büyüköztürk, Ş. (2016). Adaptation of three factor eating questionnaire (TFEQ-R21) into Turkish culture: A validity and reliability study. *TAF Prev Medicine Bulletin*. 15 (3), 229-237.

- Kemp, E., Bui, M., & Grier, S. (2013). When food is more than nutrition: understanding emotional eating and overconsumption. *Journal of Consumption Behavior, 12*, 204 - 213.
- Kitsantas, A., Gilligan, T. D., & Kamatas, A. (2003). College women with eating disorders: self-regulation, life satisfaction, and positive/negative affect. *Journal of Psychology, 137*(4), 381-395.
- Koff, E. & Sangani, P. (1997). Effects of coping style and negative body image on eating disturbance. *International Journal of Eating Disorders, 22*(1), 51-56.
- Koff, E., & Sangani, P. (1997). Effects of coping style and negative body image on eating disturbance. *International Journal of Eating Disorders, 22*(1), 51-56.
- Krohne, H. W. (2001) Stress and Coping Theories. *The International Encyclopedia of the Social and Behavioral Sciences, 22*, 15163-15170.
- Larsen, J. K., van Strien, T., Elsinga, T., & Engels, R. C. M. E. (2006). Gender differences in the association between alexithymia and emotional eating in obese individuals. *Journal of Psychosomatic Research, 60*(3), 237-243.
- Lauzon-Guillain, B., Basdevant, A., Romon, M., Karlsson, J., Borys, J. M., & Charles, M. A. (2006). Is restrained eating a risk factor for weight gain in a general population? *American Journal of Clinical Nutrition, 83*, 132-138.
- Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist, 46*(8), 819-834.
- Lazarus, R. S. (1993). From psychological stress to the emotions. *Annual Review of Psychology, 44*, 1-21.
- Lazarus, R. S. (1999). *Stress and Emotion: A New Synthesis*. NY: Springer.
- Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal and coping*. NY: Springer Publishing Company.

- Lazarevich, I., Camacho, M. E., Alva, M. D. C., & Zepeda, M. (2016). Relationship among obesity, depression, and emotional eating in young adults. *Appetite, 107*, 639-644.
- Lazarevich I., Irigoyen-Camacho M. E., Velazquez-Alva Mdel, C., & Salinas-Ávila J. (2015). Psychometric characteristics of the eating and appraisal due to emotions and stress questionnaire and obesity in Mexican university students. *Nutricion Hospitalaria, 31*(6), 2437-2444.
- Lefkoe Institute (2012). Retrieved from: <http://www.mortylefkoe.com/emotional-eating-cure/>.
- Levitan, R. D. & Davis, C. (2010). Emotions and eating behavior: Implications for the current obesity epidemic. *University of Toronto Quarterly, 79*(2), 783-799.
- Macht, M. (2008). How emotions affect eating: A five-way model. *Appetite, 50*, 1-11.
- Macht, M., & Simons, G. (2000). Emotions and eating in everyday life. *Appetite, 35*, 65-71.
- Macht, M., & Simons, G. (2011). Emotional eating. In I. Nyklicek, A. Vingerhoets, & M. Zeelenberg (Eds.), *Emotion regulation and well-being*. NY: Springer.
- Masheb, R. M., & Grilo, C. M. (2006). Emotional overeating and its associations with eating disorder pathology among overweight patients with binge eating disorders. *International Journal of Eating Disorders, 39*(2), 141-146.
- Mayhew, R., & Edelman, R. J. (1989). Self esteem, irrational beliefs and coping strategies in relation to eating problems in a non clinical population. *Personality and Individual Differences, 10*, 581-584.
- Meule, A., Allison, K .C., and Platte, P. (2014). Emotional eating moderates the relationship between of night eating with binge eating and body mass. *Europe Eating Disorders Review, 22*, 147-151.
- Michaud, C. I., Kahn, J. P., Musse, N., Bulet, C., Nicolas, J. P., & Mejean, I. (1990). Relationships between a critical life event and eating behaviour in high school students. *Stress Medicine, 6*, 57-64.

- Monat, A., Lazarus, R.S., & Reevy, G. (Eds.). (2007). *Stress and Coping*. Westport: Praeger.
- McWilliams, L. A., Cox, B. J., & Enns, M. W. (2003). Use of the Coping Inventory of Stressful Situations in a clinical sample: Factor structure, personality correlates, and prediction of distress. *Journal of Clinical Psychology, 59*, 1371-1385.
- Milici, N. & Neagu, A. (2016). Emotional eating among teenagers from Bucharest. *Proceedings of the Romanian Academy, Series B, 18*(1), 73-78.
- Nguyen-Rodriguez, S. T., Chou, C. P., Unger, J. B., & Spruijt-Metz, D. (2008). BMI as a moderator of perceived stress and emotional eating in adolescents. *Eating Behaviors, 9*(2), 238-246.
- Nguyen-Michel, S., Unger, J.B., & Spruijt-Metz, D. (2007). Dietary correlates of emotional eating in adolescence. *Appetite, 49*(2), 494-499.
- Nguyen-Rodriguez, S., Unger, J.B., & Spruijt-Metz, D. (2009). Psychological determinants of emotional eating in adolescence. *Eating Disorders, 17*(3): 211-224.
- Neumark-Sztainer, D., Falkner, N., Story, M., Perry, C., Hannah, P.J., & Mulert, S. Weight-teasing among adolescents: correlations with weight status and disordered eating behaviors. *International Journal of Obesity and Related Metabolism Disorders, 26*(1), 123-131.
- Özdemir, G. (2015). *The relationship between emotional eating and depression, anxiety, stress* (Unpublished master thesis). Hasan Kalyoncu University Graduate School of Social Sciences.
- Parker, J. D. A., & Wood, L. M. (2008). Personality and the coping process. The SAGE handbook of personality theory and assessment (Volume 1). London: SAGE.
- Penaforte, F. R. O., Matta, N. C., & Japur, C. C. (2016). Association between stress and eating behavior in college students. *Demetra: Food, Nutrition and Health, 11*(1), 225-237.
- Phillips, A. C. (2013) Perceived Stress. In: Gellman M.D., Turner J. R. (Eds.) *Encyclopedia of Behavioral Medicine*. NY: Springer.

- Preacher, K. J. & Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.
- Raspopow, K., Matheson, K., Abizaid, A., & Anisman, H. (2013). Unsupportive social interactions influence emotional eating behaviors. The role of coping styles as mediators. *Appetite*, 62, 143-149.
- Robbins, P. R. (2007). *Coping with stress: Common sense strategies*. London: McFarland & Company.
- Roemmich, J. N., Clark, P. A., Lusk, M., Friel, A., Weltman, A., Epstein, L. H., & Rogol, A. D. (2002). Pubertal alterations in growth and body composition. VI. Pubertal insulin resistance: relation to adiposity, body fat distribution and hormone release. *International Journal of Obesity and Related Metabolic Disorders*, 26(5), 701-709.
- Royal, J. D. & Kurtz, J. L. (2010). I ate what?! The effect of stress and dispositional eating style on food intake and behavioral awareness. *Personality and Individual Differences*, 49(6), 565-569.
- Schachter, S. (1968). Obesity and eating. Internal and external cues differentially affect the eating behavior of obese and normal subjects. *Science*, 161(3843), 751-756.
- Selye, H. (1956). *The Stress of Life*. NY: McGraw-Hill.
- Sevinçer, G. M. & Konuk, N. (2013). Emotional eating. *Journal of Mood Disorders*, 3(4), 171-178.
- Sierra-Baigrie, S., Lemos-Giráldez, S., & Fonseca-Pedrero, E. (2008). Binge eating in adolescents: Its relation to behavioral problems and family-meal patterns. *Eating Behavior*, 10(1), 22-28.
- Slochover, J., Kaplan, S. P., & Mann, L. (1981). The effects of life stress and weight on mood and eating. *Appetite* 2(2), 115-125.

- Snoek H. M, Engels R. C., van Strien T., and Otten R. (2013). Emotional, external and restrained eating behaviour and BMI trajectories in adolescence. *Appetite*, 67, 81-87.
- Spoor, S. T. P., Bekker, M. H. J., Van Strien, T., & Van Heck, G. L. (2007). Relations between negative affect, coping, and emotional eating. *Appetite*, 48, 368-376.
- Stice, E. (1994) Review of the evidence for a sociocultural model of bulimia nervosa and an exploration of the mechanisms of action. *Clinical Psychology Review*, 14, 633- 661.
- Stice, E., Presnell, K., & Spangler, D. (2002). Risk factors for binge eating onset in adolescent girls: a two-year prospective investigation. *Health Psychology*, 21(2), 131-138.
- Stone, A. A. & Brownell, K. D. (1994). The stress-eating paradox: Multiple daily measurements in adult males and females, *Psychology and Health* 9(6) ,425-436.
- Sulkowski, M. L., Dempsey, J., & Dempsey, A. G. (2011). Effects of stress and coping on binge eating in female college students. *Eating Behaviour* (12)3, 188-191.
- Szabo, S., Tache, Y., & Somogyi, A. (2012). The legacy of Hans Selye and the origins of stress research: A retrospective 75 years after his landmark brief “Letter” to the Editor of Nature. *Stress*, 15 (5), 472-478.
- Şahin, N. H., Durak, A., (1995). Stresle Başaıkma Tarzları Ölçeđi: Üniversite öğrencileri için uyarlanması [Adaptation of coping styles inventory for Turkish university students]. *Türk Psikoloji Dergisi*, 10(34), 56-73.
- Tabachnick, B. G. & Fidell, L. S. (2013) *Using Multivariate Statistics*. Pearson, Boston.
- Tan, C. C. & Chow, C. M. (2014). Stress and emotional eating: The mediating role of eating dysregulation. *Personality and Individual Differences*, 66, 1-4.
- Thompson, K.A., Kelly, N.R., Schvey, N.A., Brady, S.M., Courville, A.B., Tanofsky-Kraff, M., Yanovski, S.Z, Yanovski, J.A., Shomaker, L.B. (2017). Internalization of appearance ideals mediates the relationship between

appearance-related pressures from peers and emotional eating among adolescent boys and girls. *Eating Behavior*, 24, 66-73.

Thompson, S. H. & Romeo, H. (2015). Gender and racial differences in emotional eating, food addiction symptoms, and body weight satisfaction among undergraduates. *Journal of Diabetes and Obesity*, 2(4), 1-6.

Tice D. M., Bratslavsky E., Baumeister R. F. (2001). Emotional distress regulation takes precedence over impulse control: If you feel bad, do it! *Journal of Personality and Social Psychology*, 80(1), 53-67.

Topham, G. L., Hubbs-Tait, L., Rutledge, J. M., Page, M. C., Kennedy, T. S., Shriver, L. H., Harrist, A. W. (2011). Parenting styles, parental response to child emotion, and family emotional responsiveness are related to child emotional eating. *Appetite*, 56, 261-264.

Torres, S. & Nowson, C. (2007). Relationship between stress, eating behavior and obesity, *Nutrition*, 23, 887-894.

Turner, A. P., Larimer, M. E., Sarason, I. G., & Trupin, E. W. (2005). Identifying a negative mood subtype in incarcerated adolescents: Relationship to substance use. *Addictive Behaviors*, 30, 1442-1448.

TUİK. (2014). Retrieved from:  
[http://www.tuik.gov.tr/basinOdasi/haberler/2015\\_58\\_20151008](http://www.tuik.gov.tr/basinOdasi/haberler/2015_58_20151008).

Türküm, A. S. (1999). *Stresle Başaçıkma ve İyimserlik [Coping and Optimism]*. Eskişehir: TC Anadolu Üniversitesi Yayınları.

University of Carolina, Student Health and Counseling Services (2018). Retrieved from: <https://shcs.ucdavis.edu/services/groups/heal>.

Van Strein et. al. (2016). The mediation effect of emotional eating between depression and body mass index in the two European countries Denmark and Spain. *Appetite*, 105, 500-508.



- Van Strien, T., Frijters, J. E., Bergers, G. P., & Defares, P. B. (1986). The Dutch Eating Behavior Questionnaire (DEBQ) for assessment of restrained, emotional, and external eating behavior. *International Journal of Eating Disorders*, 5, 295-315.
- Van Strien, T., Rookus, M.A., Bergers, G.P., Fritjers, J.E., & Defares, P.B. (1986). Life events, emotional eating and change in body mass index. *International Journal of Obesity*, 10 (1), 29-35.
- Van Strien, T., Van der Zwaluw, C.S., Engels R. C. M. E. (2010). Emotional eating in adolescents: A gene (*SLC6A4/5-HTT*) – Depressive feelings interaction analysis. *Journal of Psychiatric Research*, 44(15), 1035–1042.
- Van Strien, T., Herman, C. P., Anschutz, D. J., Engels, R. C., & de Weerth, C. (2012). Moderation of distress-induced eating by emotional eating scores. *Appetite*, 58(1), 277-284.
- Van Strien, T., Winkens, L., Toft, M. B., Pedersen, S., Brouwer, I., Visser, M., & Lähteenmäki, L. (2016). The mediation effect of emotional eating between depression and body mass index in the two European countries Denmark and Spain. *Appetite*, 105, 500-508.
- Vanderwalle, J., Moens, E., Beyers, W., & Braet, C. (2016). Can we link emotional eating with the emotion regulation skills of adolescents? *Psychological Health*, 31(7), 857-872.
- Verstuyf, J., Vansteenkiste, M., Soenens, B., Boone, L., & Mouratidis, A. (2013). Daily ups and downs in women's binge eating symptoms: The role of basic psychological needs, general self-control and emotional eating. *Journal of Social and Clinical Psychology*, 32, 335–361.
- Walter, G. & Matoba, M. (1999). Emotional eating and eating psychopathology in nonclinical groups: a cross-cultural comparison of women in Japan and the United Kingdom. *International Journal of Eating Disorders*, 26(3), 333-340.
- Wang, M., & Saudino, K. J. (2011). Emotion regulation and stress. *Journal of Adult Development*, 18(2), 95-103.
- Wansink B., Cheney M. M., & Chan N. (2003). Exploring comfort food preferences across age and gender. *Physiological Behavior*, 79, 739-747.

- Wansink, B., Just, D. R., & Payne, C. R. (2007). Mindless eating and healthy heuristics for the irrational. *American Economic Review*, 99(2), 165-169.
- Wardle, J., Guthrie, C. A., Sanderson, S., & Rapoport, L. (2001). Development of the Children's Eating Behaviour Questionnaire. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 42(7), 963-970.
- Wichianson, J. R., Bughi, S. A., Unger, J. B., Spruijt-Metz, D., & Nguyen-Rodriguez, S. T. (2009). Perceived stress, coping and night-eating in college students. *Stress and Health*, 25(3), 235-240.
- Wilson, S. M., Darling K.E., Fahrenkamp A.J., D'Auria A.L. & Sato A.F. (2015). Predictors of emotional eating during adolescents' transition to college: Does body mass index moderate the association between stress and emotional eating? *Journal of American College Health*, 63(3), 163-170.
- Wonderlich-Tierney, A. L., & Vander Wal, J. S. (2010). The effects of social support and coping on the relationship between social anxiety and eating disorders. *Eating Behaviors*, 11(2), 85-91.
- Yoshikawa, T., Tanaka, M., Ishii, A., & Watanabe, Y. (2014). Association of fatigue with emotional-eating behavior and the response to mental stress in food intake in a young adult population. *Behavioral Medicine*, 40(4), 149-153.
- Zeidner, M. & Endler, N.S. (Eds.). *Handbook of Coping*. NY: Wiley.

## APPENDICES

### APPENDIX A. APPROVAL OF APPLIED ETHICS RESEARCH CENTER

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ  
APPLIED ETHICS RESEARCH CENTER



ORTA DOĞU TEKNİK ÜNİVERSİTESİ  
MIDDLE EAST TECHNICAL UNIVERSITY

DUMLUPINAR BULVARI 06800  
ÇANKAYA ANKARA/TURKEY  
T: +90 312 210 22 91  
F: +90 312 210 79 59  
ueam@metu.edu.tr  
www.ueam.metu.edu.tr

Sayı: 28620816 / 426

09 AĞUSTOS 2017

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof. Dr. Ayhan DEMİR ;

Danışmanlığını yaptığınız yüksek lisans öğrencisi Nergis Hazal YILMAZTÜRK' ün "*Üniversite Öğrencilerinde Algılanan Stres, Stresle Başa Çıkma Stilleri ve Duygusal Yeme Arasındaki İlişkinin İncelenmesi*" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay **2017-EGT-137** protokol numarası ile **09.08.2017 – 10.01.2018** tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Ş. Halil TURAN

Başkan V

Prof. Dr. Ayhan SOL

Üye

Prof. Dr. Ayhan Gürbüz DEMİR

Üye

Doç. Dr. Yaşar KONDAKÇI

Üye

Doç. Dr. Zana ÇITAK

Üye

Yrd. Doç. Dr. Fınar KAYGAN

Üye

Yrd. Doç. Dr. Emre SELÇUK

Üye

## APPENDIX B. INFORMED CONSENT FORM

Değerli Katılımcılar,

Bu çalışma Orta Doğu Teknik Üniversitesi, Sosyal Bilimler Enstitüsü, Eğitim Bilimleri Bölümü Yüksek Lisans Öğrencisi Nergis Hazal Yılmaztürk tarafından Prof. Dr. Ayhan Demir ve Doç. Dr. Müge Çelik Örucü danışmanlığında, üniversite öğrencilerinde algılanan stres, stresle başa çıkma stilleri ve duygusal yeme arasındaki ilişkiyi incelemek amacıyla yürütülmektedir.

Sizden istenen tüm soruları eksiksiz ve içtenlikle yanıtlamanızdır. Sorulara vereceğiniz yanıtlar kimlik bilgileri istenmeksizin değerlendirilecektir. Çalışma için ayırdığınız zaman ve gösterdiğiniz özen için teşekkür ederim. Çalışma ile ilgili soruları aşağıdaki iletişim bilgileri aracılığı ile paylaşabilirsiniz.

Arş. Gör. Nergis Hazal Yılmaztürk  
hazal.yilmazturk@tedu.edu.tr

Orta Doğu Teknik Üniversitesi  
Eğitim Bilimleri Bölümü  
Yüksek Lisans Öğrencisi

TED Üniversitesi  
Eğitim Bilimleri Bölümü  
İş telefonu: 585 00 53

Gönüllü olarak araştırmaya katılmayı kabul ediyor musunuz?

- Evet
- Hayır

## APPENDIX C. DEMOGRAPHIC INFORMATION FORM

### DEMOGRAFİK BİLGİ FORMU

**Cinsiyet:**

Kadın

Erkek

**Yaş:** .....

**Boy:** ..... cm

**Kilo:** .....kg

**Fakülte:**.....

#### APPENDIX D. SAMPLE ITEMS FROM PERCEIVED STRESS SCALE

Bu ölçek duygu ve düşünceleriniz hakkında sorular içermektedir. Sizden her bir soruda, tarif edilen duygu veya düşünceyi ne kadar sıklıkla yaşadığınızı belirtmeniz istenmektedir. Bazı sorular birbirine çok benzer gözükse de aralarında birtakım farklılıklar bulunmaktadır bu yüzden her bir soruya ayrı ayrı düşünerek yanıt vermeniz istenmektedir. Tarif edilen duygu veya düşünceyi geçen ay boyunca kaç kere hissettiğinizi saymak yerine, verilen alternatiflerden size en uygun gelen seçeneği işaretlemeniz istenmektedir. Size uygun olan seçeneği işaretleyiniz.

	Hiç	Neredeyse hiç	Bazen	Oldukça sık	Çok sık
2) Geçen ay içinde, hangi sıklıkta yaşamınızdaki önemli şeyleri kontrol edemediğinizi hissettiniz?					
3) Geçen ay içinde hangi sıklıkta kendinizi stresli hissettiniz?					
8) Geçen ay içinde, hangi sıklıkla herşeyin üstesinden geldiğinizi düşündünüz?					
9) Geçen ay içinde, hangi sıklıkla kontrolünüzün dışında gerçekleşen olaylardan dolayı kızgınlık hissettiniz?					

## APPENDIX E. SAMPLE ITEMS FROM COPING STYLES INVENTORY

Bu ölçek kişilerin yaşamlarındaki sıkıntılar ve stresle başa çıkmak için neler yaptıklarını belirlemek amacıyla geliştirilmiştir. Lütfen sizin için sıkıntı ya da stres oluşturan olayları düşünerek bu sıkıntılarımızla başa çıkmak için genellikle neler yaptığınızı hatırlayın ve aşağıdaki davranışların sizi tanımlama ya da size uygunluk derecesini işaretleyin. Herhangi bir davranış size uygun değilse %0'ın altına, çok uygun ise %100'ün altına işaret koyun.

<i>Bir sıkıntım olduğunda...</i>	<i>%0</i>	<i>%30</i>	<i>%70</i>	<i>%100</i>
7- Kendimi kapana sıkışmış gibi hissediyorum	( )	( )	( )	( )
17- Elimden hiçbir şeyin gelmeyeceğine inanırım	( )	( )	( )	( )
24- Olanlar karşısında “kaderim buymuş” derim	( )	( )	( )	( )
25- “Keşke daha güçlü olsaydım” diye düşünürüm	( )	( )	( )	( )
28- “Hep benim yüzümden oldu” diye düşünürüm	( )	( )	( )	( )

**APPENDIX F. SAMPLE ITEMS FROM THREE FACTOR EATING  
QUESTIONNAIRE**

Bu bölümde yeme alışkanlıkları ve açlık hisleri ile ilgili ifadeler ve sorular içermektedir. Her ifadeyi dikkatlice okuyup size en uygun olan seçeneği işaretleyiniz.

---

	Kesinlikle yanlış	Çoğunlukla yanlış	Çoğunlukla doğru	Kesinlikle doğru
Endişeli hissettiğimde yemek yemeğe başlarım.	1	2	3	4
Kendimi üzgün hissettiğimde çoğu zaman gereğinden fazla yerim.	1	2	3	4
Stresli veya gergin olduğumda, çoğu zaman yeme ihtiyacı hissedirim.	1	2	3	4
Kendimi yalnız hissettiğimde, kendimi yemek yiyerek teselli ediyorum.	1	2	3	4
Eğer kendimi gergin hissedersenem yemek yiyerek sakinleşmeye çalışırım.	1	2	3	4
Moralim bozuk olduğunda yemek isterim.	1	2	3	4



## APPENDIX G. TURKISH SUMMARY / TÜR KÇE ÖZET

### DUYGU ODAKLI BAŞA ÇIKMANIN ALGILANAN STRES VE DUYGUSAL YEME İLİŞKİSİ ÜZERİNDEKİ ARACI ROLÜ

#### GİRİŞ

Yeme ve yemeyle ilgili düzensizlikler, eski çağlardan beri insanoğlu için önemli konulardan biri olmuştur (Arıtcı, 2013). Yeme düzensizliğinin, psikolojik ve fiziksel iyi oluş üzerinde etkisinin çoğunlukla olumsuz olduğu bilinmektedir (Van Strien, Frijters, Bergers ve Defares, 1986). Buna ek olarak, farklı örneklerde görülen yeme ile ilgili çeşitli düzensizliklerin görülmesi, günümüzde bu konunun aydınlatılması ve iyileştirici düzenlemelerin gerekliliğini göstermektedir (Macht ve Simons, 2000; Kemp, Bui ve Grier, 2013). Psikolojik danışmanlık alanının önleyici misyonu ışığında yeme düzensizliğinin erken tespit edilmesi ve önlenmesi, daha ciddi yeme bozukluklarının önüne geçilmesi açısından önem taşımaktadır.

“Duygulsa yeme”, olumsuz duygulara karşılaşıldığında ortaya çıkan bir yeme eğilimi olarak tanımlanmaktadır (Ganley, 1989) ve Tıkanırcasına Yeme Bozukluğu ve Gece Yeme Sendromu gibi yeme bozukluklarının öncülü olarak kabul edilmektedir (Presnell ve Spangler, 2002; Masheb ve Grilo, 2006; Verstuyf, Vansteenkiste, Soenens, Boone ve Mouratidis, 2013; Meule, Allison ve Platte, 2014; Wilson, Darling, Fahrenkamp, D’Auria ve Sato, 2015).

Duygusal yeme ile değişkenlerin incelendiği pek çok çalışma bulunmaktadır. Alanyazında, duygusal yemenin çoğunlukla birlikte ele alındığı değişkenler cinsiyet (Nyugen-Rodriguez, Unger ve Spruijt-Metz, 2009; Thomson ve Romeo, 2015), beden kitle indeksi (BKİ; van Strien, Rookus, Bergers, Frijters ve Defares, 1986; Geliebter ve Aversa, 2003), obezite (Ganley, 1989; Nguyen-Rodriguez ve ark., 2009) ve depresyondur (Van Strien, 2016). Buna rağmen, bu değişkenlerin duygusal yeme ile

ilişkinin gösteren çalışmalar tutarsız sonuçlar göstermekte ve duygusal yemenin köklü bir çalışma alanı olmasına karşın tam anlaşılmadığına işaret etmektedir (Macht ve Simons, 2011). Demografik özellikler açısından duygusal yemenin sıklıkla yetişkin kadın örneğinde çalışıldığı görülmektedir (Ganley, 1989; Nguyen-Michel, Unger ve Spruijt-Metz, 2007).

Olumlu duygudurumu artırmak için tercih edilen yüksek yağlı ve şekerli gıdaların tercih edilmesi bağlamında kadınların yeme bozukluğu geliştirme açısından daha sık risk grubunda yer aldığı göz önünde bulundurulduğunda, yeme düzensizliği ile ilgili çalışmalar çoğunlukla kadın katılımcılarla yürütülmüştür (Wansink, Cheney, Chan ve 2003; Beukes, Walker ve Esterhuysen, 2009). Buna karşın, cinsiyet değişkeni temelinde tutarlı olmayan bulgular nedeniyle erkek katılımcıların da çalışmalara dahil edilmesi önerilmektedir (Nguyen-Rodriguez ve ark., 2007; Nguyen-Rodriguez ve ark., 2009). Örneğin, Nguyen-Rodriguez ve arkadaşları (2009), yürüttükleri kesitsel bir çalışmada kadın ve erkek katılımcıların duygusal yeme puanları arasında anlamlı bir fark bulmadıklarını bildirmişlerdir. Goossens, Braet ve Decaluwe (2007) ise çalışmalarında erkeklerin duygusal yeme düzeylerinin daha yüksek bulduklarını belirtmişlerdir.

Duygusal yeme ve BKİ arasındaki ilişkinin incelendiği çalışmalarda da tutarsız bulguların elde edildiği görülmektedir. Farklı kültürlerde yürütülen çalışmaların bazılarında duygusal yeme ve BKİ arasında pozitif bir ilişki bulunurken (Meule ve ark., 2014; Van Strien, 2016), bazı çalışmalarda ise anlamlı bir ilişki bulunamamıştır (Snoek, Engels, Van Strien ve Otten, 2013). BKİ bağlamında, duygusal yeme çalışmalarının obez bireylerle başladığına değinmek önem taşımaktadır (Kaplan ve Kaplan, 1957). Buna karşın, bu konuda günümüzde kabul edilen görüş normal ve düşük kilolu bireylerde de duygusal yeme davranışının görüldüğü yönündedir (Geliebter ve Aversa, 2003; Macht, 2008; Vanderwalle, Moens, Beyers ve Braet, 2016).

Duygusal yeme psikolojik, sosyal ve biyolojik birçok faktörden etkilenmektedir (Slockhover ve Kaplan, 1980; Torres ve Nowson, 2007). Bu faktörlerden biri de stres

ve başa çıkmadır. Duygusal yeme davranışı gösteren bireylerin stres anında yeme davranışı göstermeye daha açık olması söz konusudur. Fink (2016) bu noktada, Hipotalamus-Hipofiz-Adrenal Aksı tarafından salgılanan stres hormonlarının rahatsız edici etkilerinin, yüksek yağ ve şeker barındıra gıdaların tercihiyle hafifletilmeye çalışma eğilimiyle bağdaştırılabileceğini belirtmektedir.

Macht (2008), duygusal yemenin bireyleri sıklıkla iyi hissetmek için yenen gıda türü (comfort food) tercihine yönelttiğini belirtmektedir. Yüksek şeker ve yağ içeren bu gıda türünün, stres anında Hipotalamus-Hipofiz-Adrenal Aksı tarafından salgılanan hormonları yatıştırıcı özellikte olduğu için tercih edildiği bilinmektedir (Frag ve ark., 2008). Ancak, bu gıda türünün sık tüketimi, duygusal dalgalanma ve kilo artışı için kritik bir dönem olarak değerlendirilen ergenlikte sağlıklı yaşam stiline benimsenmesi açısından risk faktörü oluşturmaktadır (Levitan ve Davis, 2010).

Lazarus (1999), çatışma, öfke, travma, umutsuzluk, anksiyete ve depresyon gibi adaptasyonu etkileyen etmenlerden bahsetmiş ve bunların stres çatısı altında ele alınabileceğine değinmiştir.

Üniversite öğrencilerinin, temel bir geçiş sürecinde olmaları nedeniyle duygusal dengesizliklere hassas oldukları bilinmektedir (Penaforte, Matta ve Japur, 2016). Bu süreçte, üniversiteye geçiş stresli bir deneyim olarak ele alınabilmektedir (Robbins, 2007). Örnek olarak, Robbins (2007) söz konusu geçiş sürecinin, yeni rol ve çatışmaları barındırması bakımından öğrenciler tarafından kültür şoku olarak nitelendirildiğine değinmiştir.

Daha açık olmak gerekirse, Lazarevich ve arkadaşları (2015) da üniversiteye geçiş sürecinde sıklıkla stress deneyimlemenin temelinde aileden ayrılma, kendi yaşamının sorumluluğunu almaya başlama, yeni bir çevrede bulunma, aile ve arkadaşlarla ilişkiler, akademik performans ve çoklu görevleri yürütmenin bulunduğu değinmektedirler. Bu nedenle, yeni kazanılmış özgürlük ve sorumluluklar esas alındığında, adaptasyon sürecine bağlı stres belirtileri görülebilmekte ve adaptasyon süreci gerekli hale gelmektedir (Robbins, 2007; El Ansari ve ark., 2011; El Ansari, Labeeb, Moseley ve El-Houfy, 2013). Sonuç olarak, üniversiteye geçiş algılanan stres,

başa çıkma repertuarının yetersizliği ve kullanımı ve duygusal yeme bağlamında bir risk faktörü olarak değerlendirilmektedir (Wilson ve ark., 2015).

Yaşamın vazgeçilmez bir parçası olan stresin çeşitli etkileri olduğu bilinmektedir. Bu noktada, algılanan psikolojik baskı stresin bir boyutunu oluştururken, beden bu baskıya tepkisi diğer boyut bağlamında ele alınabilir (Baltaş ve Baltaş, 2013). Cassidy'e (1999) göre, transaksyonel model çerçevesinde, birey ve bireyin çevresindeki stresörler arasındaki ilişki bir bütün olarak ele alınmalıdır. Phillips (2013), günümüzde çevresel uyaranlar ve bireyin ihtiyaç ve kapasitesine ek olarak, stresin nasıl algılandığının stres çalışmalarında önem kazandığına değinmektedir.

Bireyler stresle başa çıkmak için çeşitli stratejilere başvurmaktadır. Başa çıkma, bireyin stresi yönetmek ya da tolere edebilmek için başvurduğu bilişsel ve davranışsal tepkileri olarak tanımlanmaktadır (Lazarus ve Folkman, 1984). Lazarus ve Folkman (1984) stresle başa çıkmayı iki temel kategoride toplamışlardır; problem odaklı başa çıkma ve duygu odaklı başa çıkma.

Problem odaklı başa çıkma, strese neden olan problemi daha iyi yönde değiştirmek adına başa çıkma planı geliştirme gibi içerikler ile ilgilidir. Duygu odaklı başa çıkma ise duygusal destek arama, inkar, kendini suçlama ya da yeniden yorumlama gibi stresörün yarattığı duygunun düzenlemesiyle ilişkilidir (Endler ve Parker, 1990). Bunlara ek olarak, Jones ve Bright (2001) duygu odaklı başa çıkma stratejileri ve egzersiz yapma, alış veriş yapma ve alkol tüketimi gibi davranışsal stratejiler arasındaki ilişkiye dikkat çekmişlerdir. Duygusal yeme de söz konusu davranışsal stratejiler arasında değerlendirilebilmektedir (Sporer ve ark., 2007). Başa çıkma stratejilerinin bazılarının etkili olduğu bilinirken bazılarının ise etkililiği tartışılmaktadır. Bu bağlamda, duygusal yemenin de olumsuz sonuçlar doğurabilmesi bakımından daha az etkili bir başa çıkma stratejisi olduğu söylenebilir.

Stres ve yeme davranışı arasındaki ilişkiyi inceleyen önceki çalışmalar çeşitli sonuçlar ortaya koymuştur (Royal ve Kurtz, 2010; Van Strien, Herman, Anshutz, Engels ve Weerth, 2011). Greeno ve Wing (1994) olumsuz duygulanım ve stresin yeme davranışı üzerinde hem besin tüketimini artırma hem de azaltmaya neden olduğunu

belirtmektedirler. Buna karşın, çalışmalar besin tüketiminin artışının daha sık rastlanan bir sonuç olduğunu göstermektedir (Heatherton, Herman ve Polivy, 1991; Stone ve Brownell, 1994; Gold ve Chrousos, 2002).

Macht ve Simons (2011) kültürel bağlamın duygusal yeme araştırmalarındaki yerinden bahsetmektedir. Duygusal yemenin pek çok boyut açısından incelenmesine ilişkin ilginin artmasına karşın, Türk örnekleminde duygusal yemeyle ilgili çalışmalar ve bunun algılanan stres ve başa çıkma gibi değişkenler yönünden incelenmesi sınırlı kalmıştır. Yetişkinlerle yürütülen önceki çalışmalarda kültürel farklılıklara değinilmesine karşın (Walter ve Matoba, 1999), çalışmaların çoğunlukla çocuklar ve yetişkinlerle yürütülmesi dikkat çekicidir (Vanderwalle ve ark.,2016). Günümüzde, Türkiye'deki çalışmalar kapsamında, duygusal yeme davranışını algılanan stres ve başa çıkma stilleri açısından, üniversite öğrencileri örnekleminde inceleyen bir çalışma bulunmamaktadır. Bu nedenle, duygusal yeme ve stres ilişkisinin, ergenlik gibi kritik bir dönemde, farklı bir kültürel bağlam olan Türk üniversite öğrencileri örnekleminde incelenmesi yararlı olabilir.

### **Çalışmanın Amacı**

Bu çalışmanın amacı stres, başa çıkma stilleri ve duygusal yeme arasındaki ilişkiyi hem algılanan stres ve duygusal yeme arasındaki direkt etki açısından hem de iki değişken arasındaki ilişkinin duygu odaklı başa çıkma stiline aracı rolü bağlamında dolaylı etkisi açısından incelemektir.

Çalışmanın araştırma soruları aşağıdaki gibidir.

Araştırma sorusu 1: Türk üniversite öğrencileri örnekleminde algılanan stres, duygu odaklı başa çıkma ve duygusal yeme arasında nasıl bir ilişki vardır?

Araştırma sorusu 2: Türk üniversite öğrencileri örnekleminde duygu odaklı başa çıkmanın, algılanan stres ve duygusal yeme arasındaki ilişkiye ne ölçüde aracı etkisi olmaktadır?

## **Çalışmanın Önemi**

Üniversiteye geçiş süreci, aile ve akran ilişkileri, duygu değişimleri gibi pek çok konuda başa çıkmayı gerektiren bir dönem olarak gençler için stresli bir deneyim olabilmektedir. Söz konusu süreçte, duyguların nasıl yönetildiği sağlıklı davranışsal örüntülerin geliştirilmesi açısından önem taşımaktadır. Üniversite öğrencileri, stresörlerle başa çıkmak için etkili ya da yeterince etkili olmayan pek çok başa çıkma stratejisine başvurmaktadır. Lazarus'un (1999) stres, başa çıkma ve duygular arasındaki etkileşime yaptığı vurgu bağlamında besin tüketiminin olumsuz duygulanım kaynaklı uyarılmaları yatıştırmak için kullanılabilirliği açısından ele alınan duygusal yeme davranışının, stress ve stresle başa çıkma stratejileri ile ilişkisi önem taşımaktadır.

Olumsuz duygularla başa çıkmada yaşanan güçlüğü bağlı olarak başvuru duyusal yeme davranışının sağlıksız yaşam stiline öncülük ettiği ve önüne geçilmediğinde Tıkanırcasına Yeme Bozukluğu, Gece Yeme Sendromu ve obezite komplike sorunlara neden olduğu bilinmektedir (Presnell ve Spangler, 2002; Masheb ve Grilo, 2006; Verstuyf, Vansteenkiste, Soenens, Boone ve Mouratidis, 2013; Meule, Allison ve Platte, 2014; Wilson, Darling, Fahrenkamp, D'Auria ve Sato, 2015).

Sağlıksız yeme stilleri Türk gençliği için risk faktörlerinden biridir. Örneğin, Türkiye İstatistik Kurumu (2014) verilerine göre Türkiye'de 15 yaşın üzerindeki bireyler, %33.7 oranında obezite, tıkanırcasına yeme bozukluğu ve yüksek BKİ ile mücadele etmektedir. Bu nedenle, yetişkinliğe sağlıklı bir geçiş açısından ergenlik gibi kritik bir dönemde, risk faktörlerinin belirlenmesi ve gerekli önlem ve müdahale çalışmalarının yürütülmesi önem taşımaktadır (Levitan ve Davis, 2010).

Etkili olmayan stresle başa çıkma stratejilerinin duygusal yeme ile ilişkili olduğu bilinmektedir (Spoor ve ark., 2007). Bunun yanı sıra, olumsuz duygulanımın duygu odaklı başa çıkma stratejilerine başvurma üzerindeki etkisi göz önünde bulundurulduğunda (McWilliams ve ark., 2003; Turner ve ark., 2005), algılanan stres bağlamında duygusal yemenin olumsuz duygulanımdan kaynaklandığı vurgusu anlam kazanmaktadır (Wilson ve ark., 2015). Bu doğrultuda, duygusal yeme, algılanan stres

ve duygu odaklı başa çıkma arasında bir ilişki beklenirken, etkili başa çıkma stratejileri çerçevesinde ele alınan problem odaklı başa çıkmanın (Monat, Lazarus ve Reevy, 2007), duygusal yeme ve algılanan stres ilişkisiyle bağlantısı beklenmemektedir (Spoon ve ark., 2007).

Her ne kadar yeme bozuklukları ile ilgili çalışmalara ağırlık verilse de bu bozukluklara öncül olabilen duygusal yeme çalışmaları Türkiye’de sınırlı kalmıştır. Yürütülen çalışmalarda duygusal yeme ve ilişki olduğu faktörlerin anlaşılmasının önemi vurgulansa da literatürde yetişkinlerle ilgili çalışmalara ağırlık verildiği görülmektedir (Özdemir, 2015). Buna ek olarak, hem stres ve başa çıkma kapsamında sosyokültürel faktörlerin rolü (Cassidy, 1999) hem de duygusal yemenin kültürel bağlamda incelenmesinin gereği vurgulandığından (Macht ve Simons, 2011), başa çıkma stillerinin duygusal yeme ve algılanan stres ilişkisine entegre edilerek Türkiye’deki üniversite öğrencileri bağlamında incelenmesi önem taşımaktadır.

Bu çalışma, farklı bir gelişimsel dönem olan geç ergenlik döneminde, duygusal yeme davranışının, stresle başa çıkma stillerinden biri olan olan duygu odaklı başa çıkmayla ilişkisini incelemesinin yanı sıra duygusal yeme kavramının doğası bakımından Türk üniversite öğrencilerinde yeme bozukluğunun önlenmesi ve müdahale sürecine ışık tutmayı amaç edinmesi bakımından önem taşımaktadır.

## **YÖNTEM**

Bu çalışmada ilişkisel araştırma yöntemi kullanılmıştır. İlişkisel araştırma, nicel araştırma yöntemlerinden biridir ve iki ya da daha fazla değişken arasında anlamlı bir ilişki olup olmadığını saptamada kullanılmaktadır (Fraenkel, Wallen ve Hyun, 2012). Bu çalışmada algılanan stresin duygusal yeme davranışı üzerinde direkt etkisinin ve duygu odaklı başa çıkmanın aracı rolünün etkisinin incelenmektedir.

## **Örneklem**

Araştırmanın örneklemini Ankara ilindeki bir devlet ve bir vakıf üniversitesindeki 711 hazırlık sınıfı öğrencisinden oluşmaktadır. Katılımcıların 461’i kadın, 250’si erkektir. Yaş aralığı 18-31 yaş arasında değişiklik göstermektedir ( $M = 18.86$ ,  $SD = 1.44$ ).

## **Veri Toplama Araçları**

### **Demografik Bilgi Formu**

Katılımcıların cinsiyet, yaş, boy ve kilolarına ilişkin bilgileri demografik bilgi formu aracılığıyla toplanmıştır.

### **Algılanan Stres Ölçeği**

Cohen, Kamarck ve Mermelstein (1983) tarafından geliştirilen Algılanan Stres Ölçeği 10 maddeden oluşmaktadır ve dördümlü Likert skalasına sahiptir (0 = hiçbir zaman; 4 = çok sık). Türk kültürüne Örucü ve Demir (2007) tarafından adapte edilen ölçekten alınan toplam puanın artması, algılanan stres seviyesinin arttığını göstermektedir. 4, 5, 7 ve 8 numaralı maddeler ters puanlanmaktadır. Ölçeğin iç tutarlılığı  $\alpha = .87$  olarak hesaplanmıştır.

### **Başa Çıkma Stilleri Ölçeği**

Şahin ve Durak (1995) tarafından, Lazarus ve Folkman'ın (1985) başa çıkma stilleri ölçeğinden yararlanılarak geliştirilen Başa Çıkma Stilleri Ölçeği'nin problem ve duygu odaklı başa çıkma üzere iki alt boyutu vardır. 30 maddeden oluşan ölçek, dördümlü Likert tip puanlamaya olanak vermektedir (0% = 1, 30% = 2, 70% =3 ve 100% =4). Ölçeğin duygu odaklı başa çıkma alt boyutu için iç tutarlılığı  $\alpha = .76$  olarak hesaplanmıştır.

### **Üç Faktörlü Yeme Ölçeği**

Stunkard ve Messick (1985) tarafından geliştirilen Üç Faktörlü Yeme Ölçeği, Capelleri ve arkadaşları tarafından revize (2009) edilerek 21 maddeye indirgenmiştir. Ölçek, kontrolsüz yeme, bilişsel kısıtlama ve duygusal yeme olmak üzere üç alt boyuttan oluşmaktadır. Türk kültürüne Karakuş, Yıldırım ve Büyüköztürk (2016) tarafından adapte edilen ölçeğin duygusal yeme alt boyutu dördümlü Likert tipte 6 maddeden oluşmaktadır. Duygusal yeme alt boyutunun iç tutarlılığı  $\alpha = .93$  olarak hesaplanmıştır.



### **Veri Toplama Süreci**

ODTÜ Uygulamalı Etik Araştırma Merkezinden alınan onay doğrultusunda veriler hem kağıt-kalem hem de internet (Google Forms) üzerinden toplanmıştır. Araştırmaya 711 hazırlık sınıfı öğrencisi katılmıştır. Tüm katılımcılar önce bilgilendirilmiş onay formunu okuyarak çalışmaya gönüllü katıldıklarını belirttikten sonra ölçekleri yanıtlamışlardır. Ölçekleri yanıtlamak yaklaşık 30 dakika kadar sürmüştür ve katılımcılara katılım karşılığında herhangi bir ödül sunulmamıştır. Kağıt-kalem ve internet üzerinden elde edilen veriler arasında anlamlı bir fark olmadığı gözlenmiştir.

### **Veri Analizi**

Veriler taranıp betimsel istatistiki değerleri hesaplanmıştır. Değişkenler arasındaki korelasyonlar hesaplanmış, cinsiyet ve beden kitle indeksinin duygusal yeme üzerine etkisinin olup olmadığı bağımsız örneklem t-testi ile incelenmiştir. Regresyon analizi varsayımları kontrol edildikten sonra algılanan stresin duygusal yeme ile ilişkisi, duygu odaklı başa çıkma stiline aracı rolü de dahil edilerek aracı değişken analizi gerçekleştirilmiştir. Verilerin analizinde SPSS PROCESS makro (Hayes, 2012) programından yararlanılmıştır.

### **Çalışmanın Kısıtlılıkları**

Bu çalışmanın en önemli kısıtlılıklarından bazıları örneklem seçme yöntemi olarak kolayda örneklem yönteminin seçilmesi ve öz-bildirim tekniğinin kullanılmış olmasıdır.

### **BULGULAR**

Bağımsız örneklem t-testi ve korelasyon sonuçlarına göre cinsiyet [ $t(569.97) = 8.27, p < .01$ ] ve BKİ ( $r = .12, p < .01$ ) değişkenlerinin, duygusal yeme üzerinde anlamlı etkisi olduğu saptandığından bu değişkenler aracı değişken analizinde kontrol edilmiştir. Çalışmanın temel hipotezini test etmek amacıyla aracı değişken modeli (Model 4) bootstrapping yöntemi (Preacher ve Hayes, 2004) kullanılarak test edilmiştir. Aracı etkilerin incelendiği bootstrap analizi sonuçlarına göre, algılanan stresin duygusal yeme üzerindeki total etkisi kadınlar için  $B = .10$  ( $SE = .02, 95\% CI = .0269; .1665$ ), erkekler için  $B = .12$  ( $SE = .04, 95\% CI = .0454; .1929$ ) olarak

saptanmıştır. Duygu odaklı başa çıkma, yalnızca kadın katılımcılar için aracı değişken rolü üstlenmektedir ( $B = .05$ ,  $SE = .02$ ,  $95\% CI = .0341; .1900$ ). Rapor edilen güven aralıklarında “0” bulunmaması elde edilen sonucun anlamlı olduğunu göstermektedir (Hayes, 2004).

## **TARTIŞMA**

### **Sonuç**

Bu çalışmanın amacı algılanan stres, duygu odaklı başa çıkma ve duygusal yeme arasındaki ilişkinin Türk üniversite öğrencileri örneğinde ele alınmasıdır. Üniversiteye geçiş süreci, gerek akademik gereklilikler gerekse yeni sosyokültürel beklenti ve çatışmaları barındırması bakımından stresli bir dönem olabilmektedir (Robbins, 2007; Penaforte, Matta ve Japur, 2016). Söz konusu geçiş süreci kapsamında hazırlık öğrencilerinin algıladıkları stres ve duygu odaklı başa çıkma stillerinin duygusal yemeyi ne ölçüde yordadığı ele alınmıştır. Hem algılanan stres hem de duygu odaklı başa çıkmanın aracı rolü çerçevesinde anlamlı bulgular elde edilmiştir. Bu bağlamda bulgular, ergenlerin stresin duygusal yeme faktörlerinden biri olduğunu belirten önceki çalışmalarla tutarlılık göstermektedir (Nguyen-Rodriguez, Chou, Unger ve Sprujit-Metz, 2008; Wilson ve ark., 2015). Buna ek olarak, duygu odaklı başa çıkmanın aracı rolünün anlamlı çıkması, Spoor ve arkadaşlarının (2007) söz konusu başa çıkma stiline duygusal yeme üzerindeki etkilerine ilişkin çalışmalarıyla tutarlı bulunmuştur. Elde edilen bulgular, duygu odaklı başa çıkma stiline kimi zaman yeterince etkili bir başa çıkma stratejisi olmadığı (Monat ve ark., 2007) ve istedik olmayan yeme örüntülerine öncülük etmesiyle açıklanabilir. Bu durum, önlem alınmadığı takdirde yeme bozukluklarının görülmesine yol açan duygusal yeme ve duygu odaklı başa çıkma stili arasındaki ilişkiyle bağıntılı olabilmektedir (Fryer ve ark., 1997; Garcia-Grau, Fuste, Miro, Saldana ve Bados, 2002).

Cinsiyet değişkeni bağlamında cinsiyetin duygusal yeme üzerinde anlamlı farka sahip olması kadın katılımcıların daha yüksek duygusal yeme puanlarına sahip olmaları alanyazındaki bulgularla örtüşmektedir (Wansink, Cheney ve Chan, 2003; Spoor ve ark., 2007). Ancak cinsiyet ve duygusal yeme ilişkisindeki tutarsız sonuçlara ek olarak, hem kadınların hem de erkeklerin duygusal yeme eğilimini vurgulayan çalışmalar

dahilinde, bu çalışma cinsiyet ayrımı yapmaksızın yürütülmüştür (Wilson ve ark., 2015).

Benzer bir durum BKİ için de söz konusudur. Her ne kadar duygusal yeme ile ilgili çalışmalar yüksek BKİ'ye sahip katılımcılarla başlasa da günümüzde duygusal yemenin normal ve hatta düşük BKİ'ye sahip bireyler için de risk faktörü olduğu bilinmektedir (Geliebter ve Aversa, 2003). Söz konusu değişkenler, bağımlı değişken ile anlamlı düzeyde ilişkili bulunduğu için ek analizlerde moderatör olarak modele dahil edilmiş ancak yeterince güçlü etkiye sahip olmadıkları için modeled anlamlı sonuçlar elde edilememiş ve bu değişkenlerin kontrol edilen değişkenler olarak analize daha edilmesine karar verilmiştir.

### **Uygulamaya Yönelik Öneriler**

Yeme örüntülerinin kalıcı olmaya başladığı ergenlik dönemi, yetişkinlik dönemine zıt olarak, sağlıklı yeme davranışının kazanımı açısından kritik bir dönem olarak nitelendirilmektedir (Sierra-Baigrie ve Lemos-Giráldez, 2008). Ergenlik dönemi bir yönüyle istendik olmayan yeme davranışlarının geliştirilmesi açısından risk faktörü olarak nitelendirilirken (Hasnain ve ark., 2008), diğer yönüyle ise önleme ve erken müdahale çalışmaları aracılığıyla yeme bozuklukları (örn., Tıkanırcasına Yeme Bozukluğu ve Gece Yeme Sendromu) gibi ileri düzey sağlık problemlerinin önüne geçilebilmesi adına önem taşımaktadır (Masheb ve Grilo, 2006; Meule, Allison ve Platte, 2014). Yeme bozukluklarının yanı sıra yüksek BKİ, obezite, stres, stresle başa çıkma, duygu düzenleme ve depresyonla yakından ilişkili bulunan duygusal yeme ile ilgili koruyucu/önleyici çalışılmalarının tasarlanması ve uygulanmasının psikolojik ve fiziksel sağlık üzerine olumlu etkilerinden bahsetmek mümkündür.

Buna örnek olarak, Binghampton ve Notre Dame Üniversitelerinde yeme farkındalığı üzerine uygulamalı programlar üniversitelerin psikolojik danışma birimi tarafından koordine edilmekte ve yürütülmektedir. Bu tür uygulamalar, Türk kültürüne adapte edilerek etkili stresle başa çıkma stratejilerinin entegrasyonu ile ülkemizde de yürütülebilir. Bu noktada, duygusal yeme, stres ve başa çıkma konseptleri bağlamında farkındalık geliştirilmesi önem taşımaktadır. Böylelikle, grupla psikolojik danışma

süreci ve psikoeğitim programları da söz konusu entegrasyona dahil edilerek üniversiteye geçiş sürecinde stresörle etkili başa çıkmanın yanı sıra sağlıklı beslenme alışkanlığı kazandırılarak yetişkinliğe geçişte sağlıklı bir yaşam stilinin yapılanmasına yardımcı olunabilir.

### **Gelecek Çalışmalar için Öneriler**

İleriki çalışmalarda duygusal yeme ölçümü, öz bildirim ölçeklerine ek olarak besin günlükleri, alınan kalori miktarı, besin türü gibi tamamlayıcı ölçümlere de yer verilebilir (Kandiah ve ark., 2006; Evers, Ridder ve Adrianse, 2009; Turner ve ark., 2010). Buna ek olarak aile ve akran ilişkilerinin duygusal yeme üzerine etkileri göz önünde bulundurularak, bu değişkenlere ilişkin veriler de araştırma sürecine dahil edilebilir.

Wilson ve arkadaşları (2015) stres kaynaklarının belirlenmesinin stres ve duygusal yeme ilişkisi üzerinde önemli verilere kaynaklık edebileceğine değinmişlerdir. Ayrıca, akademik not ortalamasının duygusal yemeyle ilişkili bulunduğu çalışmalar kapsamında (Bennett, 2013), akademik stresörler daha ayrıntılı olarak irdelenebilir. Son olarak, Türkiye örnekleminde elde edilen veriler kültürler arası karşılaştırmalı çalışmalara dahil edilebilir.

## APPENDIX H. TEZ FOTOKOPİSİ İZİN FORMU

### ENSTİTÜ

Fen Bilimleri Enstitüsü	<input type="checkbox"/>
Sosyal Bilimler Enstitüsü	<input checked="" type="checkbox"/>
Uygulamalı Matematik Enstitüsü	<input type="checkbox"/>
Enformatik Enstitüsü	<input type="checkbox"/>
Deniz Bilimleri Enstitüsü	<input type="checkbox"/>

### YAZARIN

Soyadı : YILMAZTÜRK

Adı : NERGİS HAZAL

Bölümü : EĞİTİM BİLİMLERİ

**TEZİN ADI** (İngilizce) : THE MEDIATOR ROLE OF EMOTION FOCUSED COPING ON THE RELATIONSHIP BETWEEN PERCEIVED STRESS AND EMOTIONAL EATING

**TEZİN TÜRÜ** : Yüksek Lisans  Doktora

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.

2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir.

3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz.

**TEZİN KÜTÜPHANEYE TESLİM TARİHİ:**