



**THE MEDIATING EFFECT OF COGNITIVE EMOTION  
REGULATION ON THE RELATIONSHIP BETWEEN  
MINDFULNESS AND EMOTIONAL EATING**

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Master's Thesis

Graduate School  
Izmir University of Economics

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## ABSTRACT

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Karabulut, Çağla

Master's Program in Clinical Psychology

Advisor: Assoc. Prof. Dr. Seda CAN

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Emotional eating is eating according to the events that cause people to show negative emotions. Sometimes individuals show eating behavior not because they are physiologically hungry but for psychological needs (Thayer, 2003). Cognitive emotion regulation is the control of information generated by an emotional stimulus with cognitive methods. It consists of a total of 9 adaptive and maladaptive subscales. Acceptance, positive refocusing, refocusing on the planning, positive reappraisal, and putting into perspective are adaptive strategies, while self-blame, rumination, catastrophizing and blaming others constitute the maladaptive strategies (Garnefski et al., 2001). Mindfulness can be defined as the direction of attention and acceptance and approval of the present, regardless of the feelings and thoughts that happened in the past or planned to be in the future (Bishop et al., 2004). This study aims to examine the mediating effect of cognitive emotion regulation on the relationship between mindfulness and emotional eating. four different questionnaires sent to the participants ( $N = 193$ ) by using Google forms which are Demographic Information Questionnaire,

The Emotional Eating Scale, Cognitive and Affective Mindfulness Scale, and Cognitive Emotion Regulation Questionnaire. According to the results obtained in the study, the cognitive emotion regulation variable has a mediating role in predicting mindfulness with the emotional eating variable while controlling for age. In conclusion, people who use adaptive cognitive emotion regulation skills more tend to show higher mindfulness skills and less emotional eating than people who use more maladaptive cognitive emotion regulation skills while controlling for age.

Keywords: cognitive emotion regulation, emotional eating, mindfulness, age.



# ÖZET

## BİLİNÇLİ FARKINDALIK İLE DUYGUSAL YEME ARASINDAKİ İLİŞKİ ÜZERİNDE BİLİŞSEL DUYGU DÜZENLEMENİN ARACILIK ETKİSİ

Karabulut, Çağla

Klinik Psikoloji Yüksek Lisans Programı

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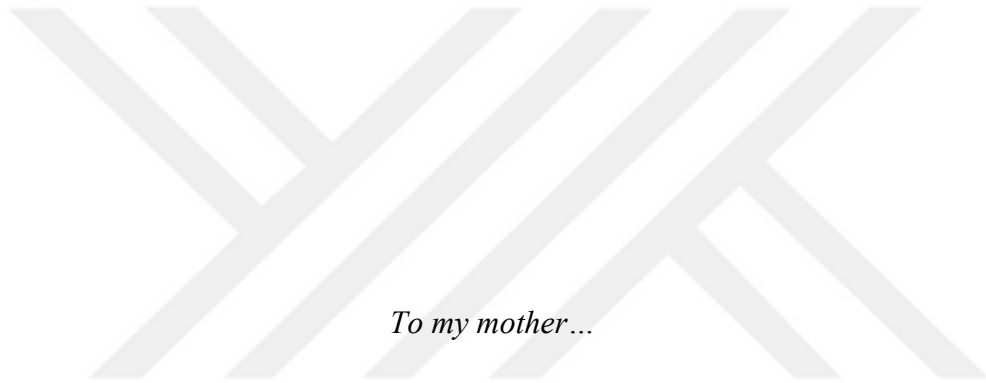
Temmuz, 2021

Duygusal yeme, insanların olumsuz duygular sergilemesine neden olan olaylara göre yemek yemektir. Bazen bireyler fizyolojik olarak aç oldukları için değil, psikolojik ihtiyaçları için yeme davranışı gösterirler (Thayer, 2003). Bilişsel duygu düzenleme, duygusal bir uyaran tarafından üretilen bilginin bilişsel yöntemlerle kontrolüdür. Toplam 9 uyumlu ve uyumsuz alt ölçekten oluşmaktadır. Kabul etme, olumlu yeniden odaklanma, yeniden planlamaya odaklanma, olumlu yeniden değerlendirme ve bakış açısına koyma uyumsal stratejiler iken, kendini suçlama, ruminasyon, felaketleştirme ve başkalarını suçlama uyumsuz stratejilerdir (Garnefski vd., 2001). Bilinçli farkındalık, geçmişte meydana gelen veya gelecekte olması planlanan duygu ve düşüncelerden bağımsız olarak, şimdiki zamanın kabulü ve onayı ile dikkatin yönü olarak tanımlanabilir (Bishop vd., 2004). Bu çalışma, bilinçli farkındalık ve duygusal yeme arasındaki ilişkide bilişsel duygu düzenlemenin aracılık etkisini incelemeyi amaçlamaktadır. Katılımcılara Demografik Bilgi Anketi, Duygusal Yeme Ölçeği, Bilişsel ve Duyuşsal Farkındalık Ölçeği ve Bilişsel Duygu Düzenleme Anketi olmak

üzere Google formları kullanılarak dört farklı anket ( $N = 193$ ) gönderilmiştir. Araştırmada elde edilen sonuçlara göre bilişsel duygu düzenleme değişkeni, yaşı kontrol ederken duygusal yeme değişkeni ile bilinçli farkındalığı yordamada aracı role sahiptir. Sonuç olarak, işlevsel bilişsel duygu düzenleme becerilerini daha fazla kullanan kişiler, yaşını kontrol ederken daha fazla işlevsiz bilişsel duygu düzenleme becerisini kullanan kişilere göre daha yüksek bilinçli farkındalık becerileri ve daha az duygusal yeme gösterme eğilimindedir.

Anahtar Kelimeler: bilişsel duygu düzenleme, duygusal yeme, bilinçli farkındalık, yaş.





*To my mother...*

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## **CHAPTER 1: INTRODUCTION**

According to the World Health Organization (WHO, 1948), the preconditions of health are defined as also being socially, physically, and mental well-being but not only the absence of disease or infirmity. Another precondition for being healthy is having a good diet and balancing nutritional elements adequately. When these are not balanced and taken more or less than needed, eating will be insufficient, and the health will break down. So, people should be aware that eating behavior can increase, develop, and protect health conditions (Baysal, 2007). A person's knowledge, thoughts, behaviors, and emotions about nutrition will form the eating behavior. This behavior is affected by demographic, physiological, social, geographical, cultural, and economic conditions as well as the individual's experiences, perception, and nutritional status about food (Altıntaş and Özgen, 2017).

In the face of unpleasant emotions and stress, people frequently reduce their food intake and lose their appetite. This is considered a natural procedure, because to these people, physiological reactions of being hungry are similar to the sense of pleasure after eating. However, emotional eating is characterized as increased food intake in the face of unpleasant impact, which is the polar opposite of the physiological reaction exhibited in the body, and considered as an "inappropriate" reaction because the person does not consume food because he/she is hungry (Sevinçer and Konuk, 2013).

Mindfulness is one of the techniques that has been used for having less tendency for emotional eating and reducing the effect of negative emotions (Akınca, 2020). Using more adaptive cognitive emotion regulation strategies are also known to be reduce the tendency for emotional eating (Kırtı, 2021). Therefore, in this thesis, the mediating effect of cognitive emotion regulation strategies on the relationship between mindfulness and emotional eating was investigated.

### ***1.1. Emotional Eating***

People sometimes engage in eating behavior because they are psychologically hungry, but not physiologically. This shows us that emotions have an influential and significant place in eating behavior. (Thayer, 2003). Normally, a lower appetite could be expected when a person faces a situation that causes emotions like anger, depression, anxiety,

etc. However, in emotional eating, the appetite arises when that person faces the same emotions such as anger, depression, anxiety (Maggard et al., 2005).

Eating disorders are thought to be linked to negative effects. Because it is claimed that individuals who are more prone to noticing negative feelings are better in feeling at ease by overeating and in diverting their attention away from their emotions (Stice, Presnell and Spangler, 2002). To be able to handle negative emotions, emotional eating is used as a psychological coping strategy (Whiteside, Chen, and Neighbors, 2012). The effect of both positive and negative emotions on eating behavior has been investigated frequently in recent years. Thus, the connection between eating behavior and emotions is now known. Certain emotions like unhappiness, fear, anger, or pleasure are also known to be influential by affecting one's feelings in altering the eating behavior and response (Economy, 2013).

When a person experiences a situation that is disturbing or stressful, he/she tends to prefer unhealthy, greasy, and spicy foods. And after consuming these foods, that person feels much better. On the other hand, when a person feels positive emotions, he/she chooses healthier foods (Lyman, 1982; Mehrabian, 1980). Enjoying the food, choosing healthier food options, and consuming them will increase due to the positive emotions (Macht, 1999; Macht et al., 2002). Emotional eating can occur in individuals who are on a diet, as well as in people who have a normal weight or are obese (Sevinçer and Konuk, 2013).

It is important to be conscious about whether the feeling of hunger is physiological or emotional (Blackman and Kvaska, 2011). Feeling physically hungry is the type of hunger in which the body needs food for energy production. Therefore, a feeling of emptiness in the stomach is felt, and rumbling sounds are heard from time to time. In the case of prolonged physical hunger, blood sugar may drop, concentration problems may occur, and the person may feel tired.

Emotional eating develops independently from physical hunger. Due to a negative experience, even though the person has eaten, he/she may feel emotionally hungry. There is a great difference between emotional hunger and physical hunger. We can list them as follows:

1. Emotional hunger appears suddenly; physical hunger is felt gradually.
2. When you eat to distract yourself from an emotion, it's not about your empty stomach. You're consuming a certain food of your choice, such as pizza or ice cream, and it just satisfies your psychological need. But if you're eating because you're physiologically hungry, you're open to other alternatives.
3. Emotional eating brings a type of hunger which appears that needs to be satiated and satisfied at that moment, but physical hunger can wait to be satisfied.
4. When you are full, if you want to satisfy a certain emotion, you will continue to eat. But if you're eating because you're hungry, you won't want to eat when you're full.
5. While emotional eating can leave behind feelings of guilt, eating when you're physically hungry doesn't give room for those feelings.

There are four theories which explain emotional eating. They are escape theory, externality theory, restraint theory, and psychosomatic theory. In the next section, these theories will be discussed.

### ***1.1.1. Theories that Explain Emotional Eating***

#### ***1.1.1.1 Escape Theory***

According to Heatherton and Baumeister (1991), this theory aimed to explain excessive eating behavior. When there are environments that create disturbing experiences, emotional eating occurs to be able to stay away from these environments. Negative experiences become a threat to some people's self. Being aware of something that will cause negativity towards the self is a threat to the self. Thus, the self leads the person to eat to avoid the negative effects of this awareness (Spoor et al., 2007). That's why individuals run away to cope with this situation and turn to emotional eating to distract their attention. The main mechanism is to avoid disturbing stimuli and to distract attention (Özdemir, 2015).

#### ***1.1.1.2. Externality Theory***

According to Ouwens et al. (2003), this theory focuses on extrinsically triggered eating. Some people's perception is not food-oriented, and they get triggered by external features of the foods like smell and presentation, because their inner awareness is low. As a result of low self-awareness, physiological stimuli gets noticed

less or not at all, while pushing the person to eat in line with external stimuli. The most important feature that distinguishes external theory from other theories is the increase of desire to eat in the individual only when he/she is in the same environment with stimulating foods (Schachter, 1968).

#### ***1.1.1.3. Restraint Theory***

To reach the ideal weight, which is seen as the beauty norms in society, individuals can follow strict diets and exhibit emotional eating behavior as a method of coping with the negative emotions arising from this situation (Nisbett, 1972). According to this theory, some physiological defense mechanisms come into play as a result of a strict diet. In addition, limiting eating behavior causes an increase in the desire to eat (Türk, 2018). Excessive desire for food and trying to limit this desired form the basis of this theory (Serin and Şanlıer, 2018).

When there is a restriction for an eating habit or a food for an individual, and that food isn't accessible for the individual, he/she has a huge desire to eat it and this makes weight gain inescapable. Likewise, when the individual consumes food that he/she should not eat, he/she immediately feels regret and anxiety. However, in cases where there is no restriction, such a situation is not observed in individuals (Herman and Polivy, 1975).

#### ***1.1.1.4. Psychosomatic Theory***

According to the psychosomatic theory, individuals who engage in emotional eating are not aware of internal stimuli and exhibit eating behavior depending on the change in their own emotions. Obese individuals exhibit eating behavior against emotional stimuli rather than stimuli such as appetite, hunger, and satiety. These individuals eat in response to hunger, as well as in response to anxiety, and distress (Kaplan and Kaplan, 1957).

A baby, who learns that he/she can calm down by eating in his/her early life, eats to soothe his/her other negative feelings, just as he/she can soothe the feeling of hunger with food in his/her later life (Ünal, 2018). Thus, individuals show emotional eating behavior when they experience disturbing emotions and feelings. Because emotional



eating decreases anxiety, it is sustained despite weight gain and obesity risk (Ganley, 1989).

There are two common key assumptions regarding affect and eating behavior underlying the theories that explain emotional eating (Bruch, 1964). The first is that unpleasant emotions make you want to eat more. The second is that eating decreases the severity of negative feelings (Macht and Simons, 2000). Booth (1994) used learning theory concepts to explain this cycle. As a result, eating motivation is a conditioned response to negative emotions. The eating activity lowers the negative emotional intensity. Consequently, the idea of eating in the face of negative emotion will make it less severe is learned and reinforced (Macht, 2008).

### ***1.1.2. Research on Emotional Eating***

In this section, the most studied variables in the literature with emotional eating are included. These are obesity, binge eating, psychological disorders, and mindfulness, respectively.

In a study that investigating the emotional eating behavior of overweight, obese, and normal-weight individuals, it was shown that obese and overweight participants exhibited more emotional eating behavior compared to normal-weight individuals (Evirgen, 2010).

In a study, made with 427 participants, emotional eating behavior was examined in a group consisting of male and female participants with below-normal, normal, and above-normal BMIs, and it was concluded that those with above-normal BMI exhibited more emotional eating behavior when compared to the others (Leblebicioğlu, 2018).

In studies, obese people have been proven to increase their eating habits when they are experiencing negative emotions (Ganley, 1989). According to emotion regulation theory, obese people eat to alleviate their unpleasant feelings (Macht and Simons, 2000). Depressive symptoms seem to be more likely among obese people, according to Yanovski et al. (1993). For reasons such as weight satisfaction, appearance, and ongoing dieting; obese people experience more unpleasant emotions and these

negative emotions function as a trigger for emotional eating in them (Müller, Dettmer, and Macht, 2008).

It was found that excessive eating is higher in obese people because they try to increase the dopamine levels in the brain (Davis and Fox, 2008). People who suffer from lack of dopamine, overeat delicious foods to be able to feel happy (Yakovenko et al., 2011). Reward-oriented people tend to prefer foods that contain high fat and sugar (Lutter and Nestler, 2009). Animal researches also support these results. The same result is eating foods that rich in glucose and sucrose activates the reward system in the brain (Adam and Epel, 2007; Güleç Öyekçin and Deveci, 2012).

Emotional eating, according to Stice, Presnell and Spangler (2002), is a significant cause of binge eating incidents. Both the clinical population with eating disorders and the non-clinical sample have shown that there is a substantial connection between emotional eating and binge eating (Telch and Agras, 1996).

Tuncer and Çetinkaya Duman (2020) made a study with 130 patients with a severe mental disorder (syndromes associated with schizophrenia and bipolar disorder). As a result, regardless of the diagnosis, antipsychotic drug usage, body mass index (BMI), physical activity or eating habits; emotional eating behavior can occur in people with severe mental illnesses. Being middle-aged, female, and having night eating habits were all found to be associated with emotional eating behavior.

Özdemir (2015) found that people with high emotional eating scores had significantly higher depression, anxiety, and stress scores than people with low emotional eating scores. As a result; women, young people, single people, people who are not satisfied with their weight, and those who consider themselves overweight exhibit more emotional eating behavior.

Another study investigated if there were any connections among mindfulness, unconditional self-acceptance skills, and emotional eating. ( $N = 272$ ), An inverse correlation was found between mindfulness and emotional eating (Akınca, 2020).

## ***1.2. Mindfulness***

The word "mindfulness" is based upon the word "Sati" in Pali which is the psychology language of Buddhism. Sati word is used to refer to awareness, remembering, and attention. Remembering in this concept does not mean living with memories; it is re-directing attention to present experiences by adopting memories (Ülev, 2014).

Life is full of sorrows, and people are reducing the possible richness of life by constantly thinking about increasing pleasurable situations and reducing annoying situations. In other words, they avoid the things they don't like, ignore them and turn to the ones they love (Germer, 2009). Mindfulness is a skill that enables less reaction to what is happening now (Greenberg, 2002). In other words, mindfulness is a way of being intertwined with all positive, negative, and neutral experiences, and when this way is used, the pain decreases, and the state of well-being increases. If he/she can feel less sadness as a result of what has happened, the problems will decrease (Greenberg, 2002).

On the other hand, Hayes and Feldman (2004), described mindfulness as a concept that is the opposite of confrontation and avoidance methods. This concept includes emotional adjustment, which includes the ability to regulate mood, affective openness, internal experience, and cognitive flexibility.

The person often has distracting thoughts or ideas about events unfolding in the present time. This is not to focus our attention on a situation that will occur soon. This is unconsciousness. When one is mindful, one does not judge or reject what is happening at that moment, or one's attention is not in the future or the past, but only in the present. This kind of attention generates sobriety, energy, and fun. Mindfulness is a skill that anyone can develop and helps to see what is happening right away and to get out of the conditioning (Germer, 2004).

In the state of mindfulness, the person is happier, fitter, awake, ready, and calm. A good relaxation of thoughts and mind can be achieved by practicing the experience of being aware of feelings, emotions, and perceptions. A person will have the opportunity to get to know his/her mind only if he/she knows how to express and observe the feelings and thoughts that arise in him/her. One could be the mind itself, as well as the

observer of the mind. So, it is not important to avoid or focus on a thought. More important thing is to be conscious of the thought. The observation does not take a side between the person and the object, which means it does not objectify the mind. The mind only watches itself. This observation is independent both from the observer and the outside objects (Hanh, 1987).

“Mindlessness” is an important term to be able to understand mindfulness better; what happens when it lacks (Siegel, Germer and Olendzki, 2009)? In mindlessness, the individual cannot experience the present emotion, perception, and thought. Without realizing, emotions can be experienced and if a person does not observe emotions, then automatic behavior may arise (Brown and Ryan, 2003).

According to Baer (2006), mindlessness is automatically doing things. If a person's default state is not mindfulness, then mindlessness will take its place. (Kabat-Zinn, 2011). An automatic state refers to when the body and mind are not in the same place (Siegel, 2014).

If a person wants to know mindfulness, then he/she must experience it. Mindfulness can be practiced in several ways. Daily mindfulness is one end of a long process of constant development. Even in hectic and distracted everyday lives, people may find moments of mindfulness. By taking a long, deliberate breath, people can temporarily disengage from their activity. Once the individual regained his/her focus, he/she may then ask himself/herself, "What am I experiencing right now?" So, what exactly am I doing right now? What is the most difficult aspect of my consciousness right now?" This is how mindfulness is in everyday life, and it is also how mindfulness appears in psychotherapy (Germer, Siegel and Fulton, 2016).

Regardless of where they stand on the practice continuum, moments of mindfulness share several characteristics. Practicing mindfulness in daily life for both advanced and beginner meditators, the real moment of waking is the same. The sensation is only more continuous for advanced meditators. The following are examples of mindful moments according to Germer et al., (2016):

1. Nonconceptual: Mindfulness is essentially a state of awareness that has not undergone mental processes.
2. Present-Centered: Mindfulness is focusing on the present without being influenced by past experiences or possible future experiences. It can only include ideas about experiences one step further, without staying in the present moment.
3. Nonjudgmental: Expectations go against the freely occurring nature of conscious awareness. Mindfulness requires not expecting experiences to be different from past and future and not labeling them.
4. Intentional: Directed attention is one of the basic building blocks of mindfulness. Mindfulness exercises need to involve directed attention. Over time, the individual will be able to increase their ability to bring their attention back to the present moment.
5. Participant Observation: While practicing mindfulness exercises, the individual is not like an outside observer. It is the focusing of mind and body in the present moment, with direction and intent. A key feature of mindfulness is that it is a present-tense approach where the mind and body can be felt closer, and the individual can experience more contact.
6. Nonverbal: Mindfulness is defined as an experience that can occur in the mind of the individual before words. It is an attainment of mindfulness that the individual can look at the events, situations, people, and emotions he/she experiences with a developed awareness that can occur spontaneously.
7. Exploratory: It means that an individual's mindfulness is a life-long experience that can be increased and developed without specifying any starting or ending point. Inclusion of discovery leads the individual to explore and investigate more of the mindfulness that he/she constantly experiences.
8. Liberating: It aims to be able to get away from the burden of past experiences and the anxiety of possible future experiences and to experience the present moment. The concentration of the mind in the present moment and directed attention are the most basic conditions for the experience of mindfulness

Although mindfulness is based on cognitive-behavioral therapies, they also have common features with many therapies such as psychoanalysis, humanistic approach, existential psychology, and gestalt approach (Siegel et al., 2009). For example, the main goal of treatment, according to classical psychoanalytic theory, is to achieve

insight. Increased awareness of the person's defense mechanisms and unconscious conflicts, according to this approach, will also lead to better behavioral change (Stephan, 2009). In humanistic psychotherapy, according to Rogers, one of the features of the individuals, who realize their awareness in their life, is that they completely utilize their capacity (Brown and Ryan, 2003; Brown and Ryan, 2007). According to the existential theory, for psychological wellness, it is vital to living, to be aware of, and to accept the negatives that the person faces (Van Deurzen, 2009). All issues, according to Gestalt therapy, stem from a lack of awareness of the requirements. One of the Gestalt therapists, Perls (1969), claims that even being aware has a therapeutic impact.

The psychological results of having higher mindfulness are better self-control, objectivity, affect tolerance, enhanced flexibility, equanimity, improved concentration and mental clarity, emotional intelligence and the ability to relate to others and one's self with kindness, acceptance and compassion. Another result of higher mindfulness is having less emotional eating (Davis and Hayes, 2012).

### ***1.2.1. Mindfulness and Emotional Eating***

An important term to be able to understand the connection between mindfulness and emotional eating is “mindful eating”. Because psychological processes, such as cognitive and emotional processes, have an impact on a person's eating habits. There is mindful eating when the state of mindfulness is used in eating practices. When it comes to hunger, mindful eating implies stopping, thinking, and then acting consciously, as opposed to reflexively eating; or observing what you eat. However, people with emotional eating behavior cannot practice mindful eating (Bays, 2009). Mindfulness-based interventions aim to improve awareness and psychological well-being as well. It is hoped that by attempting to include these intervention programs in eating behavior disorders daily, these eating behaviors can be managed (Olson and Emery, 2015).

The goal of mindful eating is to eat with complete awareness of the food's appearance, smell, and taste. With this awareness, the person may control their weight, cut down their eating speed, and decrease food cravings (Alberts, Thewissen and Raes, 2012). Mindful eating has been shown to be useful in reducing stress, irregular nutrition,

obesity, weight reduction, and eating disorders in studies on mindful eating (Warren, Smith and Ashwell, 2017).

### ***1.2.2. Research About Mindfulness***

In this section, the most studied variables in the literature with mindfulness are given. These are resilience, psychological disorders, and emotion regulation, respectively.

Rice et al. (2013) researched the relationship between mindfulness and resilience on 30 soldiers who are actively serving in the US Army. As a result of the research, it was reported that there is a positive relationship between the mindfulness levels of the participants and their psychological resilience levels.

Özdemir (2015), on the other hand, applied 8 sessions of a mindfulness-based cognitive therapy program to participants with moderate and severe depressive symptoms. When the pre-test and post-test scores of the participants were compared at the end of the program, it was seen that depressive symptoms decreased significantly.

Rasmussen and Pidgeon (2010) reported that mindfulness was positively related to self-esteem and inversely related to social anxiety. Cash and Whittingham (2010) investigated that mindfulness related negatively to stress, anxiety, and depression levels.

To investigate the link between mindfulness and emotion regulation, Hill and Updegraff (2012) conducted a study with 103 university students and stated that mindfulness and emotion regulation are related to each other. In other words, there is a negative correlation between difficulty in emotion regulation and mindfulness.

The impact of Can's (2017) Mindfulness-Based Skills Program, a seven-week mindfulness-based psychoeducation program, on depressive symptoms, perceived stress, emotional regulation difficulties, emotional component of subjective well-being, metacognitive beliefs, and feeling of knowing decisions were investigated. The study comprised of 16 university students who were depressed. The participants' symptoms of depression and perceived stress levels were reduced due to the effects of

the application, and they also had less difficulty with emotion regulation, had fewer metacognitive beliefs, experienced fewer negative and more positive emotions, and developed a more positive attitude toward their future memory performance.

In Jablonski's (2013) study, self-report questionnaires were completed by a group of non-clinical female undergraduates ( $N = 158$ ) to examine dispositional mindfulness, perceived stress, emotional regulation abilities, and problematic eating behaviors. Participants were also randomly assigned to solve solvable anagrams (a low-stress condition) or unsolvable anagrams (a high-stress condition). During the stress induction, participants were given four snack foods that varied in fat content (high/low) and flavor (sweet/salty) to assess meal selection and intake. Participants were also asked to estimate how much of each food they ate to see if dispositional mindfulness was linked to improved accuracy in estimating how much food they ate. As a result, mindfulness-based therapies were thought to be useful in the establishment of good eating habits. The findings were that mindfulness and various eating disorders have a negative relationship. Furthermore, coping with stress and emotion regulation and mindfulness were found to have a positive and significant relationship.

### ***1.3. Cognitive Emotion Regulation***

To understand cognitive emotion regulation better, it is important to know the meaning of the terms of emotion and emotion regulation first.

Emotion is the impact of the situations, the circumstances, or the others on an individual's inner world. Emotions have a crucial role in evoking the required behavioral response, regulating the decision-making mechanism, reinforcing memory for significant events, and modifying interpersonal relationships (Gross and Thompson, 2007).

Emotion regulation is a process which reflects how people express the emotions that they experienced. It can occur in different ways; can be automatic or controlled, as well as conscious or unconscious (Folkman and Moskowitz, 2003). Emotion regulation consists of an automatic and strategic process that affects the expression, mode and duration of the emotion. Research on emotion regulation shows that people live their emotions not only passively, but also actively by reacting to their emotions and making efforts to change them (Joormann and Stanton, 2016). Emotion regulation



is not only an internal process, but also an external and purposeful process (Thompson, 1991).

Cognitive emotion regulation refers to the cognitive management of situations that cause negative emotional arousal and coping with current situations using cognitive strategies (Garnefski, Kraaij and Spinhoven, 2001; Thompson, 1991). It is very difficult to distinguish between cognition and emotion. This is because attention, evaluation, contextualization, and our memories are intricately linked to emotions (Joormann, Yoon and Siemer, 2010).

Cognitive emotion regulation is the control of information generated by an emotional stimulus with cognitive methods. In addition, cognitive emotion regulation refers to cognitive coping (Garnefski and Kraaij, 2007).

According to the cognitive theory, what people think, feel and behave depends on the information processing duration in their minds. When an emotional stimulus is encountered, the determination of the emotion to be experienced occurs as a result of cognitive evaluations. There is a functional and bidirectional relationship between emotion and cognition, and one cannot be considered separately from the other (Lazarus, 1991).

Cognitive processes or cognitions might be useful to organize or conduct feelings or emotions, and also to be able to control our emotions and/or not getting overwhelmed by them (Garnefski et al., 2001; Thompson, 1991). It has been suggested that not the emotion itself causes the change in eating behavior, but the way how to cope with the emotion (Wiser and Telch, 1999).

Cognitive emotion regulation is a coping strategy used by individuals to provide emotion management after a stressful situation or exposure to stressful life events (Garnefski et al., 2001). It was used as a mediator in this study. Because it can have two effects, either negative or positive, on the relationship between mindfulness and emotional eating. Adaptive ones can strengthen mindfulness skills and help to decrease emotional eating, while maladaptive ones can weaken mindfulness skills and increase emotional eating.

Cognitive emotion regulation consists of a total of 9 adaptive and maladaptive strategies. Acceptance, positive refocusing, refocusing on the planning, positive reappraisal, and putting into perspective are adaptive strategies, while self-blame, rumination, catastrophizing and blaming others constitute the maladaptive strategies (Garnefski et al., 2001).

### ***1.1.1. Cognitive Emotion Regulation Strategies***

#### ***1.1.1.1. Self-Blame***

The person is holding oneself responsible for the consequences of the events that the person has experienced and seeing oneself as guilty (Garnefski et al., 2001). While self-blaming is behaviorally expressed in terms of the cause-effect relationship of the lived event, it is defined as a concept that threatens the self-esteem of the individual and is related to the responsibility associated with the lived event (Shaver and Drown, 1986). Studies have shown that self-blame strategy and psychopathological problems are related to each other (Anderson et al., 1994).

#### ***1.1.1.2. Rumination***

It is the repetitive and excessive thinking of one's feelings, thoughts, and feelings about a negative event or situation (Garnefski et al., 2001). It has been found that this type of coping is related to especially superior levels of depression and also other disorders (Nolen-Hoeksema, Parker and Larson, 1994).

#### ***1.1.1.3. Other-Blame***

The person is holding other people responsible for the consequences of the events one has experienced (Garnefski, Kraaij and Spinhoven, 2002). It has been found that blaming others is related to weaker emotional well-being when experiencing various forms of menacing events (Tennen and Affleck, 1990).

#### ***1.1.1.4. Catastrophizing***

It shows the focus on the subject by making the event distressing and terrifying (Garnefski et al., 2001). According to Sullivan and D'Eon (1990), catastrophizing is a cognitive process characterized by a lack of control and an expectation that the consequences of events will be negative.

#### ***1.1.1.5. Acceptance***

According to Garnefski et al. (2001), the concept of acceptance is when a person stops thinking about a situation and moves away from that situation. It is also an adaptive coping strategy, an effective attempt to accept the reality of the experienced event and to struggle with that event. Acceptance is a strategy for directly affirming one's emotions instead of suppressing or changing their emotions in a life event they experience. (Wolgast, Lundh, Viborg, 2011).

#### ***1.1.1.6. Positive Refocusing***

It is an attempt to think about different subjects, situations, or events that give peace to the real event experienced (Garnefski et al., 2001). The concept of positive reappraisal is defined as a critical part of meaning-based coping strategies that help the individual adapt successfully in the face of a stressful event. Studies have shown that the ability to see the positive side even in negative life events is associated with better health status (Garland, Gaylord and Park, 2009).

#### ***1.1.1.7. Refocus on Planning***

It refers to refocusing on the plan, thinking about how to take action regarding a negative life event, and what kind of path to follow when dealing with the negative event (Garnefski et al., 2001). Carver, Scheier and Weintraub (1989) have found that refocusing on planning is positively associated with self-esteem and optimism and inversely associated with anxiety.

#### ***1.1.1.8. Putting into Perspective***

Garnefski et al. (2001) explain the concept of putting into perspective as the idea of reducing the seriousness of an experienced event or situation or comparing the experienced situation with other situations.

#### ***1.1.1.9. Positive Reappraisal***

The concept of positive reappraisal is a critical part of meaning-based coping strategies that help the individual adapt successfully in the face of a stressful event. Studies have shown that the ability to see the positive side even in negative life events is associated with better health status (Garland, Gaylord and Park, 2009).

### ***1.1.2. Research About Cognitive Emotion Regulation***

In this section, the most studied variables in the literature with cognitive emotion regulation are included. These are obesity, emotional eating/eating behavior, and psychological disorders, respectively.

In a study that investigates cognitive emotion regulation strategies on normal weight, overweight and obese groups in China, the self-blame and rumination scores of the participants in the obese group were found to be higher than the other groups (Tan, Xin, Wang and Yao, 2018). In other words, it was concluded that self-blame and rumination among the strategies were associated with a high body mass index.

245 overweight and obese teenagers (12-18 years old), with or without nutritional treatment, were involved in the study. Higher levels of mindfulness and self-compassion skills in overweight and obese adolescents were linked to reduced levels of emotional eating, suggesting that these skills may help adolescents adopt more adaptive emotion regulation strategies. Furthermore, mindfulness abilities were adversely linked with emotional eating. However, self-compassion was associated with emotional eating inversely because it helps more the usage of adaptive emotion regulation strategies (Gouveia, Canavarro and Moreira 2019).

Raes and Williams (2010) conducted a study on the relationship between mindfulness and rumination on 164 university students. As a result of the research, they reported that there was an inverse relationship between the mindfulness levels and rumination levels of the participants.

In Leblebicioğlu's (2018) study it is investigated that whether cognitive emotion regulation strategies predict emotional eating, and it was found to have a significant influence. It was discovered that utilizing self-blame as one of the techniques, and also infrequently using the strategy of refocusing on planning increased emotional eating.

Maladaptive emotion regulation strategies are associated with impaired eating behavior and depression symptoms (Hughes and Gullone, 2011). The study conducted by Aldao, Nolen-Hoeksema and Schweizer (2010) shows that maladaptive cognitive

emotion regulation strategies have an impact on the appearance of eating disorder symptoms, while adaptive strategies do not have a direct effect.

In a study done at Hacettepe University, cognitive emotion regulation strategies were investigated in terms of depression symptoms and anxiety levels. Depressive symptoms were predicted by less usage of acceptance and positive refocusing techniques. The overuse of catastrophizing and rumination methods, as well as the lack of use of acceptance strategies, was found to predict trait anxiety levels (Ataman-Temizel and Dağ, 2014).

According to researches, there is an association between cognitive emotion regulation strategies and some psychopathologies. Strategies of self-blame, rumination, catastrophizing, and other-blame, which are considered as maladaptive, are positive with psychopathologies; inverse correlations were discovered between psychopathologies and acceptance, positive refocusing, refocus on planning, positive reappraisal, and putting into perspective which are considered as adaptive strategies (Garnefski and Kraaij, 2007; McCurdy, 2010).

#### ***1.4. Aim of the Present Study***

This study aims to examine the mediating effect of cognitive emotion regulation on the relationship between mindfulness and emotional eating while controlling for age. Cognitive emotion regulation was preferred because both emotional eating and mindfulness are cognitive processes, they are more internal, and they are about the individual himself/herself, just as cognitive emotion regulation. In the previous studies, it has been found that there is a relationship between cognitive emotion regulation, mindfulness, emotional eating, and age. For example, people who are using maladaptive emotion regulation strategies tend to show more emotional eating (Schneider et al., 2012), and from 4 different studies, people (college students, bariatric surgery samples, diabetic patients, and nonclinical samples) who have higher mindfulness tend to show less emotional eating (Lattimore et al. 2011; Ouwens et al. 2015; Pidgeon et al. 2013; Tak et al. 2015). Furthermore, Watford, Braden and Emley (2019) discovered evidence of emotion regulation and psychological well-being playing a mediating role in the connection between higher mindfulness and decreased emotional eating in individuals with overweight/obesity. Treatments aimed at

improving adaptive emotion regulation and psychological well-being may result in a decreased desire to eat in reaction to negative emotions and boredom (Watford, Braden and Emley, 2019). In addition to this, it was discovered that when people get older, they tend to use more mindfulness (Raes and William, 2010) and less emotional eating (Snoek, Engels, van Strien and Otten, 2013). However, neither of them studied all of them together and the mediating role of cognitive emotion regulation on the relationship between mindfulness and emotional eating while controlling for age. So, it has been thought that the result of the planned study will contribute to the literature.

### ***1.5. Hypotheses***

- a.** Mindfulness will be positively related to adaptive cognitive emotion regulation strategies and negatively related to maladaptive cognitive emotion regulation.
- b.** Mindfulness will be negatively related to emotional eating.
- c.** Emotional eating will be positively related to maladaptive cognitive emotion regulation strategies and negatively related to adaptive cognitive emotion regulation strategies.
- d.** Age will be positively related to mindfulness and negatively related to emotional eating
- e.** Maladaptive cognitive emotion regulation strategies will significantly mediate the relationship between emotional eating and mindfulness while controlling for age.
- f.** Adaptive cognitive emotion regulation strategies will significantly mediate the relationship between emotional eating and mindfulness while controlling for age.

## CHAPTER 2: METHOD

### 2.1. Participants

A total of 279 participants were obtained to participate and a convenient sample type has used in the study. 42 of the participants have been diagnosed with psychological disorders (Depression, OCD, panic disorder, etc.), and 25 of them had mindfulness training; in terms of exclusion criteria, their data was deleted. Elimination of 3 of the data was because they had eating disorders and the Emotional Eating Questionnaire has the condition that participants must not have any eating disorders. In addition to this, as mentioned before, it is known that people who are obese have higher emotional eating. Because of this 14 participants' data was deleted due to their BMI was above 30. 1 person was transgendered male and because he was the only one, his data was not included. Lastly, 1 male's data was eliminated because he entered his weight as 701 kilograms. As a result, the current study includes 193 participants.

Table 1. Frequencies of Participants According to Age, Educational Level and Meditation Training

	<b>Groups</b>	<i>N</i>	%
<b>Gender</b>	Male	78	40.4
	Female	115	59.6
<b>Education Level</b>	Bachelor's Degree	129	66.84
	Master's Degree	53	27.46
	Doctoral Degree	11	5.70
<b>Meditation Training</b>	Yes	13	6.74
	No	180	93.26

115 (59.6 %) of the participants were females and 78 (40.4 %) were males. The ages of the participants ranged from 19 to 75 ( $M = 36.69$ ,  $S.D. = 15.38$ ) The ages of female participants are ranged from 19 to 68 ( $M = 37.26$ ,  $S.D. = 15.24$ ) and males are from 20 to 75 ( $M = 35.85$ ,  $S.D. = 15.63$ ). The educational level of the participants differs; 129 of the participants have bachelor's degrees, 53 of them have master's degrees and 11 of them have doctoral degrees. Lastly, 180 (93.26 %) of them did not have any training about meditation and 10 (76.9 %) people who answered yes to this question did not

meditate regularly in their daily life and 3 (23.1 %) people who answered yes to this question meditates regularly in their daily life.

## ***2.2. Instruments***

In this study, following instruments have been used; Informed Consent Form, Demographic Information Questionnaire, The Emotional Eating Scale (EES), Cognitive and Affective Mindfulness Scale-Revised (CAMS-R) and Cognitive Emotion Regulation Questionnaire (CERQ).

### ***2.1.1. Informed Consent Form and Demographic Information Questionnaire***

In informed consent form, it was clarified that voluntarily participation will be necessary and they can quit at any time without any consequences if they wish to. Other information is about participants' personal information will not be asked and to be able to participate the study the requirements were being above the age of 18 and not being diagnosed with any eating disorders (Anorexia Nervosa, Bulimia Nervosa and/or Binge Eating). In the form, the participants agreed to read and understand the information and accept to participate the study.

The Demographic Information Questionnaire is a self-report questionnaire which is developed by the researcher to be able to learn the important demographic information about participants. At this part; gender, age, height, weight, education level, meditation and mindfulness knowledge and any psychological diagnosis asked (See Appendix B).

### ***2.1.2. The Emotional Eating Scale (EES)***

The Emotional Eating Scale (EES) was developed by Sinem Bilgen (2018) as a Turkish emotional eating scale which evaluates emotional eating (See Appendix C). This is a self-report questionnaire and there are no reversed items. Only condition for this scale is not having any diagnosed eating disorders (bulimia nervosa, anorexia nervosa, and binge eating). This scale includes 30 items and the participants determined the most appropriate statement for themselves. The items of EES are rated on a 5-point Likert scale from 1 (Never) to 5 (Almost always). The scores of the participants could differ from 30 to 150. Higher scores indicate higher levels of emotional eating. Internal consistency of EES reported as .96 which shows the scale is valid and consistent.



The first stage of the validity and reliability study was made with 427 people between the months March and July in 2017. At the second stage, additionally there were other three scales that is similar with emotional eating scale and the second stage was made with 150 people between the months August and October in 2017. The third stage was test-retest and it was made after 4 months later the first stage and 1 month later than the second stage with 310 people. Totally, there were 887 participants in this study. The construct validity of the emotional eating scale was determined by principal component analysis. In all three stages of the study, the data were collected through questionnaires.

In the first stage, the study consists of 2 parts which are demographic information questionnaire and the Emotional Eating Scale.

The validity of the EES has been tested by explanatory factor analysis. 4 factors with eigenvalues greater than 1 were formed. 1<sup>st</sup> factor explains 23.20% of the total variance, the 2<sup>nd</sup> factor explains 23.10%, the 3<sup>rd</sup> factor explains 9.55% and the 4<sup>th</sup> factor 7.8%. All four factors meet 63.65% of the total variance. The factor loading values of the items in the scale should be above the limit value of .30 or .40 (Ros, 2006). Factor loadings of the EES vary between .33 and .80.

Considering the results of the factor analysis, 11 of the 30 items in the Emotional Eating Scale (1, 2, 3, 4, 5, 9, 10, 12, 17, 18, 21) were based on the 1<sup>st</sup> factor and 10 of them (6, 11, 13, 14, 15, 16, 19, 20, 22, 30) to factor 2, 6 of them (8, 23, 26, 27, 28, 29) to factor 3 and 3 of them (7, 24, 25) to 4<sup>th</sup> factor.

The second stage consists of 5 parts. In the first part, there are questions about the demographic characteristics of the participants. In the second part, the Emotional Appetite Scale, which consists of two subscales, emotion and state, was used. In the third part, there is the Three Factor Nutrition Scale. This scale consists of 3 subscales: uncontrolled eating, unconscious eating, and sensitivity to hunger. Feeding Emotions Emotional Eating Scale takes place in the fourth part. In the fifth part, there is the Emotional Eating Scale used in the first stage.

The third stage was made to investigate the test-retest reliability, and the questionnaire form is the same as in the first stage.

When Cronbach's Alpha coefficient is examined for the reliability of the scale, it was found to be .94 ( $N = 30$ ). As a result of the reliability analysis, it was seen that the 26<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> items should be reversed. When these 3 items were reversed, Cronbach's Alpha coefficient was found to be .96 ( $N = 30$ ). It can be said that the Emotional Eating Scale is a highly reliable scale.

### ***2.1.3. Cognitive and Affective Mindfulness Scale-Revised (CAMS-R)***

Cognitive and Affective Mindfulness Scale - Revised (CAMS-R) was developed by Feldman, Hayes, Kumar, Greeson and Laurenceau (2007) (See Appendix D). It is used to evaluate mindfulness as a self-report questionnaire, the participants will determine the most appropriate statement for themselves. The items of CAMS-R are rated on a 4-point Likert scale from 1 (Rarely/Not at all) to 4 (Almost always). In English version item 6 and in Turkish version item 5 used as reverse item. Higher scores indicate higher levels of mindfulness. One of the aims looked for in the revised version of the scale was to make an appraisal instrument that could be perceived by people with no related knowledge in mindfulness practice. The items of the scale are intended to tap various aspects of mindfulness including awareness, present-focus, acceptance, and attention.

Two different studies were made while creating CAMS-R. The aim of the first study was to create and choose items for revised CAMS which is shorter than CAMS but still measures mindfulness wide enough and the aim of the second study was to report discriminant and convergent validity by using student sample. 548 ethnically-diverse university students participated to the research. Data of the 250 participants were used to test the preliminary models. At the beginning there were 35 items for the scale then low correlated items deleted and there were 20 items left which split into 4 categories (five awareness items, four present-focus items, four attention items, seven acceptance items). Because the 20-item version showed relatively poor fit, low correlated items deleted. Finally, there were only 12 items left. After the suitable scoring inversions, the 12-item version showed acceptable degree of internal consistency in both studies (First sample's  $\alpha = .74$ ; Second sample's  $\alpha = .77$ ).

Second study examined the relationships between the CAMS-R and the two other measures which are the Mindful Attention Awareness Scale (MAAS; Brown and Ryan, 2003) and Freiburg Mindfulness Inventory (FMI; Buchheld, Grossman and Walach, 2002). 212 ethnically-diverse college students participated to the research. The internal consistency in this sample was acceptable for the CAMS-R ( $\alpha = .76$ ). CAMS-R mindfulness scores were firmly associated with complete mindfulness scores in FMI and MAAS. This information tells that CAMS - R is acceptably consistent scale.

Since the internal consistency coefficient of the total scale is higher than the individual subscales, the authors suggested calculating a single total awareness score instead of 4 subscales.

Items number 2 (“I am preoccupied by the future”) and 7 (“I am preoccupied by the past”) omitted because they might be confusing in terms of worry and rumination, so the alternat 10-item version created. Both 10-item version and 12-item version of CAMS-Rs are highly associated ( $r = .97$ ). Internal consistency of 10-item CAMS - R is reported as .78 (Feldman, 2007).

The adaptation of the Turkish version of the scale was conducted by Pelin Çatak (2012) according to the 10-item version of the scale. 2 studies were made while adapting CAMS-R. At the first study, 265 undergraduate students participated to the study. CAMS - R, MAAS, Perceived Stress Scale (PSS; Cohen, Kamarck and Mermelstein, 1983), and Beck Depression Inventory (BDI; Beck, 1961) were given to the participants. A Confirmatory Factor Analysis was conducted by Feldman et al. (2007). The goal of the second study was to examine the psychometric properties in a community sample of Turkish version of CAMS-R. White-Color public officers of 88 adults participated to the study. Same instruments in the first study were used only adding the General Health Questionnaire 12 item version (GHQ-12; Goldberg, 1972). The internal consistency for these studies found as .77 and .73, respectively.

#### ***2.1.4. Cognitive Emotion Regulation Questionnaire (CERQ)***

Cognitive Emotion Regulation Questionnaire (CERQ) was developed by Garnefski and Kraaij (2007) (See Appendix E). It is used to evaluate emotion regulation skills.

This scale includes 36 items which measures 9 different emotion regulation skills some are adaptive (Acceptance, positive refocusing, refocus on planning, putting into perspective, positive reappraisal) and some are maladaptive (Rumination, self-blame, catastrophizing, other-blame). Each skill contains 4 questions to determine. Participants will determine the most appropriate statement for themselves. The items for CERQ are rated on 5-point Likert scale from 1 (Not at all) to 5 (Always). Each score of the subscales may differ between 4-20. Getting higher scores from each skill indicates that the participant used mostly that emotion regulation skill.

Two different studies were made to measure test-re-test reliability. In first one; 611 adults from general population participated to the study. They asked in the consent form if they would like to participate into the second study. After 1 year later, in the second one, 301 adults participated to the study. Firstly, two principal component analyzes for construct validity were performed using varimax rotation: (1) data from the first measurement and (2) follow-up data. The community range is between .55 and .78. The factors are in full compliance with the previous scale distribution and all loads on the above factors exceed .55. In the second measurement data, population range is between .52 and .79, were also extracted.

The test-retest reliability coefficient is performed by calculating the Pearson correlation between the first and second measured subscale scores. Taking into account the 1-year follow-up period, it was found that the test-retest reliability of the scale was good enough, with a value between .48 and .65.

The internal consistency for CERQ calculated in terms of subscales showed between .68 and .86. (Garnefski and Kraaij, 2007).

The adaptation of the Turkish version of the scale was conducted by Ece Ataman (2011). 203 university students participated to the research. In previous studies, all subscales have validity ranging from .68 to .86 (Garnefski et al., 2002). Factor analysis was performed using Varimax rotation to examine the construct validity of the scale. The scale had an 8-factor structure, and it was observed that this structure was formed by gathering the factors of “refocusing on planning” and “positive re-evaluation” under a single factor. In the study of Garnefski et al. (2002), the two factors mentioned

above were gathered under a single factor, as in the result of this study. Therefore, the two factors mentioned in this study were considered as independent constructs in line with the authors' suggestion, so the 9-factor structure of the scale was preserved as in the original.

In the adaptation study, statistically significant internal consistency values were found for the subscales, the 9-factor structure of the scale was preserved in parallel with the original and the total internal consistency coefficient was determined as .85 (Ataman, 2011). Considering the internal consistency coefficients for the subscales, the internal consistency coefficient for the “refocusing on planning” sub-dimension is .80; .83 for the “blaming others”; .78 for “reducing the value of the event”; .81 for the “disaster”; .80 for “positive refocus”; .68 for the “self-blame”; .65 for the “acceptance”; .70 for the “rumination”; It was observed as .79 for the “positive re-evaluation”. It can be said that the internal consistency coefficient is also found to be statistically significant for the sub-dimensions.

In order to evaluate the test-retest reliability of the scale, the scales were re-applied to a group of 62 people from the pre-study sample 5 weeks after the first application. For all subscales except acceptance subscale, first measurement scores and final measurement scores were found to be positively and significantly related showing test-retest reliability of the scores.

### ***2.3. Procedure***

After ethics committee approval was approved, to collect the data, google forms link of the study sent via e-mail groups, Instagram and WhatsApp groups. Personal information did not ask from the participants. The study lasts about 10-15 minutes totally. They read and accepted the informed consent to participate. After this, they were given respectively following instruments; Demographic Information Questionnaire, The Emotional Eating Scale (EES), Cognitive and Affective Mindfulness Scale - Revised (CAMS-R), and Cognitive Emotion Regulation Questionnaire (CERQ). Data collection started in 26<sup>th</sup> of February, 2021 and ended in 15<sup>st</sup> of April, 2021.

#### ***2.4. Statistical Analysis***

IBM SPSS Statistics used in order to analyze the data. Descriptive statistics used to investigate frequencies averages, percentages and standard deviation of data. Mediation analysis with PROCESS used to investigate whether cognitive emotion regulation mediates the relationship between emotional eating and mindfulness while controlling for age (Hayes, 2013).



## CHAPTER 3: RESULTS

### 3.1. Correlation Analyses of the Variables

Table 2 shows the descriptive statistics and the correlations of the measured variables of the study.

It can be seen that, there was a negatively significant relationship between age and emotional eating ( $r = -.28, p < .001$ ), and positively significant relationship between age and mindfulness ( $r = .22, p = .002$ ), positive refocus ( $r = .22, p = .002$ ).

Emotional eating related significantly and negatively to mindfulness ( $r = -.31, p < .001$ ), and positive refocus ( $r = -.16, p = .03$ ), refocus on planning ( $r = -.15, p = .03$ ), and positive reappraisal ( $r = -.17, p = .02$ ); significantly and positively to rumination ( $r = .22, p = .002$ ), self-blame ( $r = .30, p < .001$ ), other blame ( $r = .11, p = .02$ ), and catastrophizing ( $r = .22, p = .002$ ).

Moreover, mindfulness was significantly and negatively related to self-blame ( $r = -.20, p = .01$ ), other blame ( $r = -.14, p = .05$ ), and catastrophizing ( $r = -.27, p < .001$ ); and positively related to acceptance ( $r = .19, p = .01$ ), positive refocus ( $r = .27, p < .001$ ), refocus on planning ( $r = .53, p < .001$ ), putting into perspective ( $r = .17, p = .02$ ) and positive reappraisal ( $r = .56, p < .001$ ).

There was a positively significant relationship between rumination and self-blame ( $r = .41, p < .001$ ), catastrophizing ( $r = .21, p = .003$ ), acceptance ( $r = .22, p = .002$ ), refocus on planning ( $r = .24, p = .001$ ), putting into perspective ( $r = .17, p = .01$ ), and positive reappraisal ( $r = .21, p = .003$ ).

In addition to this, self-blame related significantly and positively to catastrophizing ( $r = .40, p < .001$ ), acceptance ( $r = .22, p = .01$ ), and negatively to positive refocus ( $r = -.16, p = .03$ ).

Other-blame was significantly and positively related to catastrophizing ( $r = .38, p < .001$ ), and positive refocus ( $r = .15, p = .03$ ).

On the other hand, there was a negatively significant relationship between catastrophizing and refocus on planning ( $r = -.25, p < .001$ ), and positive reappraisal ( $r = -.27, p < .001$ ).

Acceptance related significantly and positively to positive refocus ( $r = .22, p = .002$ ), refocus on planning ( $r = .37, p < .001$ ), putting into perspective ( $r = .45, p < .001$ ), and positive reappraisal ( $r = .40, p < .001$ ).

Moreover, positive refocus was significantly and positively related to refocus on planning ( $r = .30, p < .001$ ), putting into perspective ( $r = .45, p < .001$ ), and positive reappraisal ( $r = .40, p < .001$ ).

There was a positively significant relationship between refocus on planning and putting into perspective ( $r = .36, p < .001$ ), and positive reappraisal ( $r = .67, p < .001$ ). Lastly, putting into perspective related significantly to positive reappraisal ( $r = .56, p < .001$ ). The average value of the positive reappraisal of the participants is 14.72 ( $SD = 3.39$ ). However, the  $p$  value for the other variables were larger than .05 and they did not relate significantly.



Table 2. Descriptive statistics and correlations between the study variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Age	36.69	15.36											
2. Emotional Eating	69.99	21.50	-.288**										
3. Mindfulness	28.70	5.47	.217**	-.311**									
4. Rumination	14.56	2.82	-.097	.220**	-.005								
5. Self-Blame	12.16	2.89	-.055	.300**	-.197**	.411**							
6. Other-Blame	10.37	2.78	-.111	.171*	-.144*	.022	.066						
7. Catastrophizing	9.77	3.47	-.090	.219**	-.273**	.210**	.395**	.375**					
8. Acceptance	13.70	2.69	-.086	.138	.192**	.219**	.219**	.059	.062				
9. Positive Refocus	11.22	3.73	.218**	-.159*	.267**	-.084	-.157*	.154*	-.039	.221**			
10. Refocus on Planning	15.24	2.98	.060	-.153*	.526**	.240**	.008	-.074	-.251**	.366**	.297**		
11. Putting into Perspective	13.85	3.37	.113	.014	.174*	.181*	.078	.136	.011	.452**	.450**	.364**	
12. Positive Reappraisal	14.72	3.39	.127	-.168*	.559**	.212**	-.052	-.102	-.268**	.403**	.395**	.672**	.560**

### 3.2. Main Analysis

Finally, the hypothesis that the relationship between emotional eating and mindfulness are mediated by cognitive emotion regulation while controlling for age was examined. Since the sample size was not big enough ( $N = 193$ ), two different models were run for adaptive and maladaptive cognitive emotion regulation strategies.

Results from the first mediation analysis (Figure 1) indicated that emotional eating is indirectly related to mindfulness through its relationship with self-blame (the maladaptive subscale of cognitive emotion regulation) while controlling for age but not related with any other maladaptive cognitive emotion regulation subscales (Rumination, other-blame, catastrophizing).

While controlling for age, self-blame significantly predicts emotional eating even with mindfulness ( $b$ -path;  $B = 1.41$ ,  $t = 2.49$ ,  $p = .01$ ).

Moreover, the indirect effect of mindfulness on emotional eating through the mediator self-blame while controlling for age ( $ab$ -path) was estimated to lie between  $-.334$  and  $-.015$ . Since the 95% confidence interval for the indirect pathways via self-blame does not include zero, this indicates a significant mediated pathway.

With self-blame, other-blame, rumination, and catastrophizing in the model, the direct effect of mindfulness on emotional eating ( $c$ -path;  $B = -1.03$ ,  $t = -3.80$ ,  $p = .0002$ ) decreases and remains significant ( $c'$ -path;  $B = -.83$ ,  $t = -3.06$ ,  $p = .003$ ), indicating partial mediation. The overall mediation model is significant,  $F(6, 186) = 9.12$ ,  $p < .001$  and explains 23% of the variance in emotional eating ( $R^2 = .23$ , adjusted  $R^2 = .20$ ).

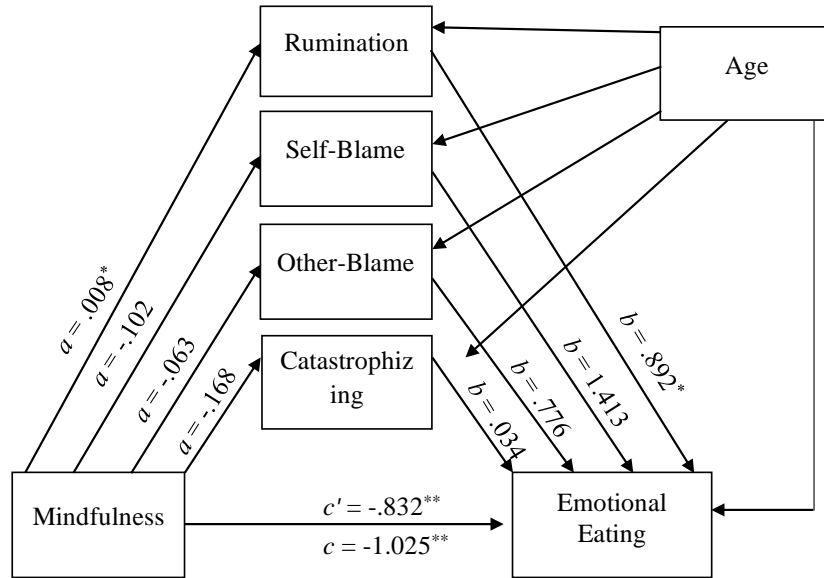


Figure 1. A mediation model for the emotional eating and the mindfulness with the mediating role of maladaptive cognitive emotion regulation strategies (Rumination, self-blame, other-blame, catastrophizing) with age as a covariate.

Note 1. The unstandardized values were used in the figure.

Note 2.  $*p < .05$ ,  $*p < .01$ ,  $**p < .001$ .

Results from the second mediation analysis (Figure 2) indicated that emotional eating is indirectly related to mindfulness through its relationship with acceptance (the adaptive subscale of cognitive emotion regulation) while controlling for age but not related with any other adaptive cognitive emotion regulation subscales (positive refocus, refocus on planning, putting into perspective and positive reappraisal).

While controlling for age, acceptance significantly predicts emotional eating even with mindfulness ( $b$ -path;  $B = 1.53$ ,  $t = 2.47$ ,  $p = .02$ ).

Moreover, the indirect effect of mindfulness on emotional eating through the mediator acceptance while controlling for age ( $ab$ -path) was estimated to lie between .020 and .382. Since the 95% confidence interval for the indirect pathways via self-blame does not include zero, this indicates a significant mediated pathway.

With acceptance, positive refocus, refocus on planning, putting into perspective, and positive reappraisal in the model, the direct effect of mindfulness on emotional eating ( $c$ -path;  $B = -1.03$ ,  $t = -3.80$ ,  $p = .0002$ ) decreases and remains significant ( $c'$ -path;  $B$

= -.90,  $t = -2.66$ ,  $p = .01$ ), indicating partial mediation. The overall mediation model is significant,  $F(7, 185) = 6.25$ ,  $p < .001$  and explains 19% of the variance in emotional eating ( $R^2 = .19$ , adjusted  $R^2 = .16$ ).

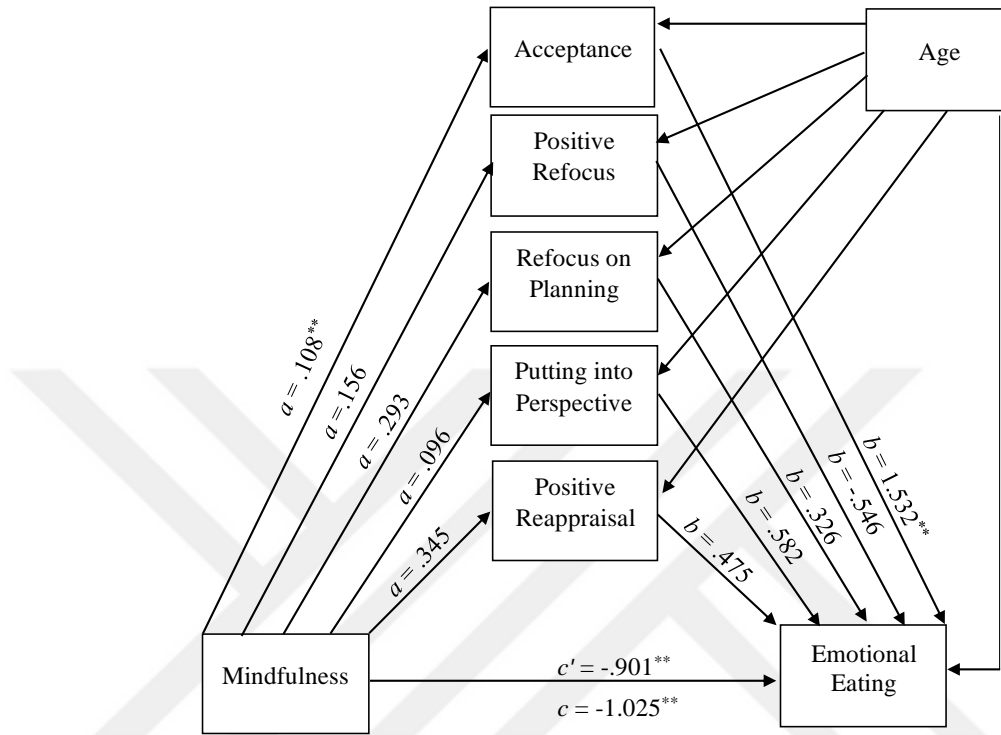


Figure 2. A mediation model for the emotional eating and the mindfulness with the mediating role of adaptive cognitive emotion regulation strategies (Acceptance, positive refocus, refocus on planning, putting into perspective, and positive reappraisal) with age as a covariate.

Note 1. The unstandardized values were used in the figure.

Note 2. \* $p < .05$ , \* $p < .01$ , \*\* $p < .001$ .

## **CHAPTER 4: DISCUSSION**

### ***4.1. Discussion of the Results***

This study investigates the relationship between emotional eating, cognitive emotion regulation, and mindfulness. The primary aim of this study is to test whether mindfulness contributes to greater use of adaptive cognitive emotion regulation which in return leads to having less emotional eating.

Whether or not emotional eating tendency differs according to mindfulness is another hypothesis examined in this study. Regarding to the literature, the emotional eating variable appears as a phenomenon that decreases as mindfulness increases. Akinca (2020), found an inverse correlation between mindfulness and emotional eating. People with increased mindfulness (college students, bariatric surgery samples, diabetic patients, and nonclinical samples) experience less emotional eating, according to four studies (Lattimore et al. 2011; Ouwens et al. 2015; Pidgeon et al. 2013; Tak et al. 2015). The current study's findings are similar to the previously reported findings, indicating that more use of mindfulness is substantially related to less use of emotional eating. Mindfulness is about seeking answers to the questions of "What do I feel, why do I feel this way?" by staying in the moment. Emotional eating, on the other hand, is a coping strategy. People with emotional eating avoid staying in the moment and understanding their current feelings and thoughts after an event that causes stress or negative emotions (Akinca, 2020). Therefore, it is expected that people with high mindfulness skills tend to eat less emotionally.

Another hypothesis examined in this study is whether emotional eating and mindfulness differ according to age (Adults between 19 to 75).

Research in the literature discovered that emotional eating is searched more in kids and teenagers which is proven to be common in these groups (Işgın et al., 2014; Van Strien and Oosterveld, 2008; Snoek, Engels, van Strien and Otten, 2013). The current study's findings are similar to the previously reported findings, indicating that younger people tend to have more emotional eating.

In regard to the literature, mindfulness was reported to be higher in older people than in younger people (Lenger, Gordon and Nguyen, 2019; Raes and William, 2010). The current study's findings are similar to the previously reported findings, indicating that older people tend to have more mindfulness.

Furthermore, another hypothesis examined in this study is whether or not cognitive emotion regulation mediates emotional eating and mindfulness.

Regarding to the literature, the emotional eating variable appears as a phenomenon that increase as maladaptive cognitive emotion regulation increases. Gouveia et al., (2019) found that; higher usage of adaptive cognitive emotion regulation strategies, because they increase self-compassion, are related to lower emotional eating. In Leblebicioğlu's (2018) study, it was investigated whether cognitive emotion regulation strategies predict emotional eating, and it was found that using the maladaptive ones (i.e., self-blame) more frequently and the adaptive ones (i.e., refocus on planning) less, increased emotional eating. Impaired eating behavior and depression symptoms are associated with maladaptive emotion regulation strategies (Hughes and Gullone, 2011). People who show more emotional eating are using maladaptive emotion regulation strategies (Schneider et al., 2012). On the appearance of eating disorder symptoms, while adaptive strategies do not have a direct effect, maladaptive cognitive emotion regulation strategies have an increasing impact (Aldao, Nolen-Hoeksema and Schweizer, 2010). The current study's findings are similar to the previously reported findings, indicating that more use of maladaptive cognitive emotion regulation is substantially related to having more emotional eating.

In regard to the literature, the mindfulness variable appears as a phenomenon that increases as adaptive cognitive emotion regulation increases. Hill and Updegraff (2012) stated that when mindfulness decreases difficulty in emotion regulation increases. Due to the impact of Can's (2017) Mindfulness-Based Skills Program, a seven-week mindfulness-based psychoeducation program, the participants had less difficulty with emotion regulation. Higher levels of mindfulness skills were linked to increased levels of adaptive emotion regulation strategies. (Gouveia, et al., 2019). In Jablonski's (2013) study, emotion regulation and mindfulness were found to have a positive and significant relationship. Raes and Williams (2010) reported that there was

a negative relationship between the mindfulness levels and rumination (maladaptive emotion regulation strategy) levels of the participants. The current study's findings are similar to the previously reported findings, indicating that more use of adaptive cognitive emotion regulation is substantially related to having more mindfulness.

Whether or not cognitive emotion regulation affects the relationship between emotional eating and mindfulness as a mediator is another hypothesis examined in this study.

The present results indicate that higher use of adaptive cognitive emotion regulation strategies explains the association between less emotional eating and higher use of mindfulness. Although existing research focusing on cognitive emotion regulation strategies is limited, the present results are congruent with those of Meyer and Leppma (2019), who found that the association between mindfulness and eating disorder symptoms was fully mediated by emotion regulation. In addition, Watford, Braden and Emley (2019) discovered evidence of emotion regulation and psychological well-being mediating the association between increased mindfulness and lower emotional eating. In this study, acceptance was found to be positively correlated even though it was expected to be negatively, because it is one of the adaptive cognitive emotion regulation strategies. In the literature, there are not any findings of why acceptance is positively correlated with emotional eating while it is expected to be negatively correlated. In the literature, there are not any findings of why acceptance is positively correlated with emotional eating while it is expected to be inversely correlated. According to Miyamoto, Ma, and Petermann (2014), cultures have different beliefs and theories about negative emotions. This result might depend on the cultural beliefs. In Turkish culture acceptance may be perceived as negative rather than positive.

#### ***4.2. Limitations and Future Suggestions***

Since the self-report scale is used, there are subjective evaluations. That's why the participants may have given biased answers. The participants were reached from social media and e-mail groups. Because of that, people who were not in the online mail groups and could not be reached via social media may have been excluded as a result of this circumstance. It should be noted that this circumstance may impose a restriction on the number of people who can participate. Eating disorders were not studied in this

study because the criterion of the emotional eating scale was that the participants must not have any eating disorders. However, in future studies, emotional eating can be replaced by an eating disorder or added together and studied to look at the effect. The number of the participant were insufficient and convenient sample was used. By increasing the demographic characteristics, more different groups can be reached. In addition to this, gender differences could be investigated in future researches.

It has been mentioned before that stressful life events lead to more emotional eating (Lyman, 1982; Mehrabian, 1980; Özdemir, 2015). In addition, when the stress levels of the participants decreased, they had less difficulty in regulating emotion (Can, 2017), and as the ability to cope with stress increased, the level of emotion regulation increased positively (Jablonski, 2013). Another known information is individuals who have higher COVID-19-related stress tend to pay more money for foods, mostly sweets, and desserts (Smith, Jansen, Thapalia, and Others, 2021). As a result, it was thought that emotional eating may have been affected by the increase in stress during the COVID-19 period. This effect can be taken into account in future research.

Moreover, adults were studied in this study, but adolescents and their sociocognitive developmental traits, especially for mindfulness, can be studied. However, evaluating the relationship between age and mindfulness may be an insufficient alternative for establishing a link between mindfulness and sociocognitive development. Future studies may look at the relationship between mindfulness and specific abilities that are known to develop during adolescence (e.g., perspective-taking, self-regulation), (Warren, Wray-Lake and Syvertsen 2018).



## **CHAPTER 5: CONCLUSION**

When mindfulness level of the participants increases, the emotional eating tendency decreases. In addition to this, higher mindfulness leads to better use of adaptive cognitive emotion regulation methods.

Another finding is about the relationship between age and mindfulness, and emotional eating. The result indicates that older people tend to have more mindfulness and less emotional eating.

Overall, although the data is cross-sectional and cannot be used to infer causal conclusions, the present study's findings support the idea that mindfulness has an indirect influence on emotional eating through cognitive emotion regulation while controlling for age.

### ***5.1. Implications***

Mindfulness, emotional eating, and cognitive emotion regulation are related to a person's well-being, life satisfaction, and both psychological and physical health. Therefore, measuring them together with the effect of cognitive emotion regulation as a mediator will guide the researchers in the future about the possible antecedents of emotional eating and possible consequences of mindfulness skills.

Moreover, it will also inform the researchers who are studying emotional eating, mindfulness, and cognitive emotion regulation separately, about their possible cumulative effects while planning their interventions.

For psychotherapies, clinicians could teach mindfulness techniques and more adaptive cognitive emotion regulation strategies; lead clients to use more of these techniques and strategies so that the emotional eating tendency of the clients will decrease.

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## APPENDIX A

### BİLGİLENDİRİLMİŞ ONAM FORMU

Sayın Katılımcı,

Bu çalışma, İzmir Ekonomi Üniversitesi Klinik Psikoloji Yüksek Lisans programı öğrencisi Çağla Karabulut tarafından, Doç. Dr. Seda Can danışmanlığında yüksek lisans tezi olarak yürütülmektedir. Çalışmanın amacı; bilişsel duygu düzenleme ve bilinçli farkındalık ile duygusal yeme arasındaki ilişkilerin incelenmesidir.

Sizden beklenen, çalışmada size iletilen formları doldurmanızdır. Formun doldurulması yaklaşık 10-15 dakikanızı alacaktır. Formu doldururken dikkatinizin dağılmayacağı bir ortamda bulunmanız ve yanıtlarınızı size en uygun olacak şekilde ve eksiksiz olarak vermeniz, güvenilir araştırma sonuçları açısından büyük önem taşımaktadır.

Çalışmaya katılabilmeniz için 18 yaşından büyük olmanız ve daha önce herhangi bir yeme bozukluğu (Bulimiya Nervoza, Anoreksiya Nervoza, Tıkanırçasına Yemek Yeme) tanısı almamış olmanız gerekmektedir.

Çalışmaya katılmak tamamen gönüllülük esasına dayanmaktadır. Araştırmaya katılmama ya da katıldıktan sonra istediğiniz anda araştırmayı yarıda bırakıp çıkma hakkına sahipsiniz. Araştırmada sizden hiçbir kimlik bilgisi istenmeyecek, verdiğiniz bilgiler gizli tutulacak ve sadece bilimsel amaçlarla kullanılacaktır.

Çalışmayla ilgili herhangi bir soru ya da bilgi almak isterseniz araştırmacıya [Redacted] adresinden ulaşabilirsiniz.

Çalışmaya katıldığınız için teşekkür ederiz.

Yukarıdaki bilgilendirmeyi okudum, anladım ve çalışmaya katılmayı kabul ediyorum.

Evet  Hayır

## APPENDIX B

### DEMOGRAFİK BİLGİ FORMU

1. Yaşınız:
2. Cinsiyetiniz:  
Kadın  Erkek  Diğer
3. Kilonuz: \_\_\_\_ cm
4. Boyunuz: \_\_\_\_ kg
5. Eğitim Düzeyiniz:  
 İlkokul  
 Ortaokul  
 Lise  
 Lisans  
 Yüksek Lisans  
 Doktora  
 Diğer (Lütfen belirtiniz): \_\_\_\_\_
6. Daha önce tanısı konulmuş bir psikolojik rahatsızlığınız var mı?  
Evet  Hayır
7. Cevabınız evet ise; nedir? \_\_\_\_\_
8. Daha önce meditasyon eğitimi aldınız mı?  
Evet  Hayır
9. Düzenli meditasyon yapıyor musunuz?  
Evet  Hayır
10. Daha önce bilinçli farkındalık eğitimi aldınız mı?  
Evet  Hayır
11. Cevabınız evet ise; bilinçli farkındalık tekniklerini günlük hayatınızda etkin bir şekilde kullanıyor musunuz?  
Evet  Hayır

## APPENDIX C

### TÜRKÇE DUYGUSAL YEME ÖLÇEĞİ

Aşağıda yeme davranışına ilişkin bazı maddeler ve bu maddelerin ne sıklıkla yapıldıkları bulunmaktadır. Lütfen size en uygun gelen seçeneği işaretleyiniz.

1. Zor zamanlarda, sağlıksız davranışlara daha eğilimli oluyorum.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
2. Kendimi baskı altında hisdersem daha çok yerim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
3. Stresli olduğum zamanlarda daha çok yerim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
4. Kendimi çaresiz hisdersem yemek yemek isterim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
5. İş tempom yoğunlaşırsa daha çok yerim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
6. Yemeği abarttığımda suçlu hissedirim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
7. Yiyecekleri, ödül ve zevk kaynağı olarak kullanırım.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
8. Aç olmadığımında yerim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
9. Bir şeyler beklediğim gibi gitmezse yemek yemek isterim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
10. Bir şeylerden rahatsız olduğumda daha fazla yemek isterim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
11. Bir konuda depresif ya da üzgünsem yemek yemek isterim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
12. Bir konuda endişeli ya da kaygılı hissediyorsam yemek yemek isterim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman
13. Canımın sıkın olduğu zamanlarda yemek yemek isterim.  
Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

## APPENDIX C (Continued)

14. Yalnız hissettiğimde yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

15. Biri beni üzdüğünde yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

16. Bana acı veren bir deneyimimi hatırlatan benzer durumlarda yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

17. Korktuğum zaman yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

18. Sınırlarımın bozuk olduğu zamanlarda yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

19. Yaptığım bir şeyden dolayı kötü ya da suçlu hisdersem yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

20. Kendimi incinmiş hisdersem yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

21. Heyecanlı olduğum zamanlarda yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

22. Sorunlarımla baş edebilmek için yemek yerim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

23. Yememin kontrolümün dışında olduğunu hissediyorum.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

24. Lezzetli bir şey görüp kokusunu alırsam onu yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

25. Başkalarını yemek yerken görürsem ben de yemek yemek isterim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

26. Diyet söz konusu olduğunda irademe hakimim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

27. Kilo kontrolünde diyetle istikrarı sağlayamıyorum.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

## APPENDIX C (Continued)

28. Lezzetli yiyeceklere karşı koyabilirim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

29. Yemek için ısrar edilirse hayır diyebilirim.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman

30. Yiyecekler duygularımla baş etmede bana yardım ediyor.

Asla  Nadiren  Bazen  Sıklıkla  Neredeyse her zaman



## APPENDIX D

### BİLİŞSEL VE DUYGUSAL BİLİNÇLİ FARKINDALIK ÖLÇEĞİ

Aşağıda günlük deneyimlere ilişkin bir dizi durum verilmiştir. Lütfen size en uygun gelen seçeneği işaretleyiniz.

1. Yaptığım şeye odaklanmak benim için kolaydır.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
2. Duygusal acıya tahammül edebilirim.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
3. Değiştiremediğim şeyleri kabullenebiliyorum.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
4. O anda nasıl hissettiğimi genelde oldukça detaylı olarak tarif edebilirim.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
5. Dikkatim kolaylıkla dağılır.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
6. Düşüncelerimi ve duygularımı takip etmek benim için kolaydır.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
7. Düşüncelerimi yargılamadan onların farkına varmaya çalışırım  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
8. Sahip olduğum düşünce ve duyguları kabullenebiliyorum.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
9. Şimdiki ana odaklanabilirim.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman
10. Uzun süre boyunca dikkatimi tek bir şeye verebilirim.  
Hiçbir zaman  Ara sıra/Nadiren  Sıklıkla  Her zaman



## APPENDIX E

### BİLİŞSEL DUYGU DÜZENLEME ÖLÇEĞİ

Hemen hepimizin yaşamında hoş olmayan kötü şeyler olabilmekte ve bu olaylara verdiğimiz tepkiler de birbirinden farklı olabilmektedir. Aşağıdaki cümlelerde başınıza gelmiş olan olumsuz ya da nahoş olaylar karşısında genellikle ne düşündüğünüz sorulmaktadır. Her bir cümleyi okuduktan sonra sizin durumunuza en uygun seçeneği işaretleyerek yanıt vermeniz istenmektedir.

#### **Başına kötü bir olay geldiğinde;**

1. Bunun suçlusu benim diye düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
2. Artık bu olayın olup bittiğini kabul etmek zorunda olduğumu düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
3. Bu yaşadığımla ilgili ne hissettiğimi düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
4. Yaşadıklarımın daha hoş olan şeyleri düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
5. Yapabileceğim en iyi şeyi düşünürüm  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
6. Bu olaydan bir şeyler öğrenebileceğimi düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
7. Her şey çok daha kötü olabilirdi diye düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
8. Yaşadığım olayın başkalarının başına gelenlerden daha kötü olduğunu düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
9. Bu olayda başkalarının suçu olduğunu düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
10. Bu olayın tek sorumlusunun ben olduğumu düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman
11. Durumu kabullenmek zorunda olduğumu düşünürüm.  
Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

## APPENDIX E (Continued)

12. Zihnim yaşadığım olay hakkında ne düşündüğüm ve hissettiğimle sürekli meşgul olur.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

13. Olayla hiç ilgisi olmayan hoş şeyler düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

14. Bu durumla en iyi nasıl başa çıkabileceğimi düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

15. Başımdan geçenlerin bir sonucu olarak daha güçlü bir insan haline gelebileceğimi düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

16. Diğer insanların çok daha kötü tecrübeler geçirdiklerini düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

17. Başıma gelen olayın ne kadar korkunç olduğunu düşünüp dururum.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

18. Başımdan geçen olaydan başkalarının sorumlu olduğunu düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

19. Bu olayda yaptığım hataları düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

20. Bu olayla ilgili hiçbir şeyi değiştiremeyeceğimi düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

21. Bu olayla ilgili neden böyle hissettiğimi anlamak isterim.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

22. Başımdan geçen olay yerine hoş bir şeyler düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

23. Bu durumu nasıl değiştireceğimi düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

24. Bu durumun olumlu yanlarının da olduğunu düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

## APPENDIX E (Continued)

25. Diğer şeylerle karşılaştırıldığında bunun o kadar da kötü olmadığını düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

26. Yaşadığım bu şeyin bir insanın başına gelebilecek en kötü şey olduğunu düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

27. Bu olayda diğerlerinin yaptığı hataları düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

28. Esas sebebin kendimle ilgili olduğunu düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

29. Bununla yaşamayı öğrenmem gerektiğini düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

30. Bu durumun bende uyandırdığı duygularla boğuşurum.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

31. Hoş olayları düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

32. Yapabileceğim en iyi şeyle ilgili bir plan düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

33. Bu durumun olumlu yanlarını ararım.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

34. Kendime hayatta daha kötü şeylerin de olduğunu söylerim.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

35. Sürekli bu durumun ne kadar korkunç olduğunu düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

36. Esas sebebin başkalarıyla ilgili olduğunu düşünürüm.

Hiç  Nadiren  Ara sıra  Sıklıkla  Her zaman

## ETHICS COMMITTEE APPROVAL

**SAYI** : B.30.2.İEÜ.0.05.05-020-151

16.07.2021

**KONU** : Etik Kurul Kararı hk.

**Sayın Doç. Dr. Seda Can ve Çağla Karabulut ,**

**“The Mediating Effect Of Cognitive Emotion Regulation on the Relationship between Mindfulness and Emotional Eating”** başlıklı projenizin etik uygunluğu konusundaki başvurunuz sonuçlanmıştır.

Etik Kurulumuz 16.07.2021 tarihinde sizin başvurunuzun da içinde bulunduğu bir gündemle toplanmış ve ve Etik Kurul üyeleri projeleri incelemiştir. Başvurunuzla ilgili olarak sosyal medyada ilan edilecek araştırmalarda sanal korsanlık tehlikesi olabileceğinden, kişisel bilgilerin güvenliği konusunda gerekli önlemlerin alınması önerilmektedir.

Sonuçta 16.07.2021 tarihinde **“The Mediating Effect Of Cognitive Emotion Regulation on the Relationship between Mindfulness and Emotional Eating ”** konulu projenizin etik açıdan uygun olduğuna oy birliğiyle karar verilmiştir.

Gereği için bilgilerinize sunarım.

Saygılarımla,



**Prof. Dr. Murat Bengisu**

**Etik Kurul Başkanı**