



T.C.

YEDITEPE UNIVERSITY

INSTITUTE OF HEALTH SCIENCES

DEPARTMENT OF NUTRITION AND DIETETICS

**FREQUENCY OF FOOD ADDICTION AND ITS
ASSOCIATION WITH DEPRESSION RISK IN
WOMEN**

MASTER'S THESIS

DERYA BELLİ

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SUPERVISOR

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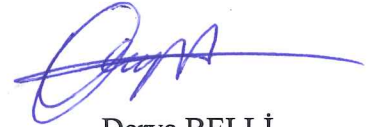
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Bu tez Yeditepe Üniversitesi Lisansüstü Eğitim-Öğretim ve Sınav Yönetmeliğinin ilgili maddeleri uyarınca yukarıdaki jüri tarafından uygun görülmüş ve Enstitü Yönetim Kurulu'nun 31.../12./2019 tarih ve 2019/20-37 sayılı kararı ile onaylanmıştır.


Prof. Dr. Bayram YILMAZ
Sağlık Bilimleri Enstitüsü Müdürü

DECLARATION

I hereby declare that this thesis is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree except where due acknowledgment has been made in the text.



Derya BELLİ

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LIST OF ABBREVIATIONS

BDI	Beck Depression Inventory
BMI	Body Mass Index
DM	Diabetes Mellitus
DSM	The Diagnostic and Statistical Manual
FA	Food Addiction
N	Number
SD	Standard Deviation
SPSS	Statistical Package for Social Sciences
YFAS	Yale Food Addiction Scale
WFA	Without Food Addiction
WHO	World Health Organization

ABSTRACT

Belli D. (2019) Frequency of Food Addiction and Its Association with Depression Risk in Women. Yeditepe University Institute of Health Sciences, Department of Nutrition and Dietetics, Master Thesis, Istanbul.

The aim of this study is to investigate the relationship between the frequency of food addiction and the risk of depression in women. The study consists of women aged 18 years and older who applied to a private nutrition counseling and education center. The sample size was calculated to be 126 with 95% confidence interval and 5% error margin, and it was decided to reach 150 people with waste margin when the prevalence of food addiction were determined to be 9% (based on the data in the literature).

The participants were included in the study by reading and signing the informed consent form, and after a face-to-face interview, anthropometric measurements, Yale Food Addiction Scale (YFAS), Beck Depression Inventory (BDI) and a questionnaire covering the general characteristics of the individuals were applied.

The data obtained from the study were analyzed by using Statistical Package for Social Sciences (SPSS) for Windows 25.0. Independent t test was used to compare age, anthropometric measurements and mean body composition of the women according to their food addiction status. According to the test results, there was a significant difference between the mean values of body weight, BMI, waist circumference, hip circumference, body fat mass, body fat percentage, lean body mass, lean body percentage and muscle mass values according to the women's food addiction.

There was a significant difference between the depression score and the mean number of symptoms of food addiction according to the women's food addiction. It was seen that the depression score and the number of symptoms of food addiction of the food addicts were higher than the non-addictive women.

Keywords: Food addiction, depression, nutrition, diet

ABSTRACT (TURKISH)

Belli D. (2019) Kadınlarda Yeme Bağımlılığı Sıklığı ve Depresyon Riski ile İlişkisi. Yeditepe Üniversitesi Sağlık Bilimleri Enstitüsü, Beslenme ve Diyetetik Bölümü, Master Tezi, İstanbul.

Yeme bağımlılığı sıklığı ve depresyon riski ile ilişkisini incelemeyi amaçlayan bu çalışma, özel bir beslenme danışmanlığı ve eğitim merkezine başvuru yapan 18 yaş ve üzeri kadınlardan oluşmaktadır. Örneklem büyüklüğü, yeme bağımlılığı prevalansı %9 olarak (literatürdeki verilerle) belirlendiğinde %95 güven aralığı ve %5 hata payı ile 126 olarak hesaplanmıştır, fire payı ile 150 kişiye ulaşılması kararlaştırılmıştır.

Çalışmaya katılan bireyler öncelikle bilgilendirilmiş gönüllü olur formunu okuyup, imzaladıktan sonra yüz yüze görüşülerek antropometrik ölçümler, Yale Yeme Bağımlılığı Ölçeği (YYBÖ), Beck Depresyon Envanteri (BDE) ile bireylerin genel özelliklerini kapsayan bir anket uygulanmıştır.

Araştırmada elde edilen veriler Statistical Package for Social Sciences (SPSS) for Windows 25.0 programı kullanılarak analiz edilmiştir. Sonuç olarak, araştırmaya katılan kadınların yeme bağımlısı olma durumlarına göre yaş, antropometrik ölçümleri ve vücut bileşimlerinin ortalamalarını karşılaştırmak için bağımsız t testi uygulanmıştır. Test sonucuna göre, kadınların yeme bağımlısı olma durumlarına göre, vücut ağırlığı, BKİ değerleri, bel çevresi, kalça çevresi, vücut yağ kütlesi, vücut yağ yüzdesi, yağsız vücut kütlesi, yağsız vücut yüzdesi ve kas kütlesi değerlerinin ortalamaları arasında istatistiksel olarak anlamlı bir fark olduğu görülmektedir.

Kadınların yeme bağımlısı olma durumlarına göre depresyon skoru ve yeme bağımlılığı semptom sayılarının ortalamaları arasında istatistiksel olarak anlamlı bir fark olduğu görülmektedir. Yeme bağımlısı olan katılımcıların depresyon skoru ve yeme bağımlılığı semptom sayılarının ortalamalarının, yeme bağımlısı olmayan kadınlara göre daha fazla olduğu görülmektedir.

Anahtar Kelimeler: Yeme bağımlılığı, depresyon, beslenme, diyet

1. INTRODUCTION AND PURPOSE

Poor nutrition; it affects of billions of people's life by increasing the risk of other diseases such as cancer and heart disease (1). Along with changing living conditions, changing diet has influenced the way of people life. Access to food has increased, life expectancy has increased, but health concerns related to unbalanced nutrition have also increased. Therefore, people have begun to show more interest in healthy eating. While less processed, high protein, high cereal and relatively low saline foods were consumed in the pre-industrial period, with the development of nutritional technology, consumption of processed foods that add flavor and flavor enhancing additives has increased, especially in western countries. Consumption of these foods has led to the formation of a sense of reward and increased desire to consume again. This has revealed that certain foods have addictive effects (2).

In recent years, the concept of food addiction has become increasingly popular. This concept includes the idea that certain foods (usually processed, highly delicious and high-energy foods) may have addictive potential and that certain forms of over-eating may represent an addictive behavior. According to DSM-5, there were similarities between substance addiction and food addiction criteria, and it was emphasized that the desire for substance use and the desire to eat certain foods were quite similar (3).

People's eating habits and food choices are influenced not only by culture, sex or the influence of hormones, but also by individual desires. Studies showing that our emotional state is effective in food consumption are gradually increasing (4).

It was found that in the presence of negative emotions such as depression and anxiety, losing control over eating behavior and eating as emotion regulator and depression rates were higher in these people (5).

Different studies on food addiction have been conducted to date, but the literature suggests that the relationship between food addiction and depression remains insufficient. The aim of this thesis is to examine the reasons why people have difficulty in resisting consumption of certain foods and its relationship with depression.

Working on food and addiction will help to understand why people have difficulty in resisting certain foods. This information can be used to develop better treatment programs for food problems. This may include programs designed not only to treat obesity

but also to educate people about nutrition in general. Understanding which foods to avoid should be helpful in removing these foods from institutions such as schools or developing public policy (1).



2. GENERAL INFORMATION

2.1. Addiction

2.1.1. Definition of Addiction

Addiction can be defined as inability to control or stop using a substance or behavior (6). In the international literature, the concept of addiction is mostly used as “addiction” and “dependence”. However, DSM-IV (The Diagnostic and Statistical Manual, 4th edition) uses the terms “dependence” and “abuse instead of “addiction” (7).

Şahin (2007) defined addiction as the increasing use of any substance without therapeutic purpose, without responding to a physiological requirement, and listed the three main components of addiction as follows;

- In all cases and conditions, there is an unobstructed desire and desire to receive the substance,
- The requirement to increase the dose used continuously (tolerance),
- Feeling of psychological and physiological need for the substance used and its effects (deprivation) (8).

Addiction is usually not recognized by the individual. Therefore, it can turn into more risky situations than other diseases. Individuals may be dependent on many substances such as cigarettes, alcohol, drugs. In addition, addictions should not be considered only when it comes to addiction to cigarettes, alcohol, drugs, etc. but also addictions such as behavior-based food addiction, game addiction, sex addiction, computer addiction, television addiction, shopping addiction, internet addiction etc. (9, 10). Individuals with behavioral addictions may show certain withdrawal symptoms, such as those with substance addicts (11-14).

Similar symptoms are usually guiding both substance addiction and behavior-based dependence detection. Addiction goes through a process that is hidden and often the individual does not realize that he or she is an addict or very late. Not all dependencies are of the same severity, but can be characterized as mild, moderate and high. Although behavioral addiction poses less physical risk than substance addiction, it can cause more psychological and sociological problems on the individual. However, it can be said that both substance and behavior based addictions cause serious psychological, physiological and sociological problems. For example, sex addiction leads to family disintegration and

causes social traumas; food addiction can lead to physical problems such as diabetes, high blood pressure, heart diseases and sudden deaths; In addition, it can be said that the risk of depression increases in both substance and behavioral addictions (7).

There is no addiction on every substance use, and addiction may not be developed against every behavior. Therefore, it can be judged whether or not an individual is dependent as a result of reference criteria such as the world-accepted DSM-IV (1994). These include; increasing the amount or duration of use due to the inability of the dependent state to be left or controlled, the pleasure received from the dependent state each time is not sufficient; problems such as stress, restlessness and anxiety as a result of decreasing or breaking the bond to the substance or behavior, and so on. criteria.

According to Griffiths (1999), diagnostic criteria for behavior-based dependencies are as follows;

Attention (Salience): occurs when a particular action becomes important in a person's life. It dominates thoughts (leading to mental distortion or cognitive distortions), emotions (resulting in severe desires) and behavior (socialized behavior destruction).

Mood Change (Mood Modification): This refers to subjective experiences as a result of engaging in a particular activity. It can be seen as a coping strategy.

Tolerance: The process of increasing the amount of certain activities to have the same effect.

Withdrawal Symptoms: These are uncomfortable feelings and physical effects that occur when a certain action does not continue or suddenly stops.

Conflict: Interpersonal or internal conflicts with people around him or her. It is the conflicts he or she experiences through various activities such as work, social life, hobbies and interests.

Recurrence (Relapse): is the beginning of a certain activity with its previous patterns. After years of control or avoidance, it is the return to the extreme of addiction (15).

Food addiction; it is a serious problem that people cannot keep themselves from some food, no matter how serious they say it is. Although they decide to eat healthy food, they find themselves eating unhealthy food over and over again, and they continue to eat knowing that these foods are harming themselves. Just as drug addicts are dependent on that drug, food addicts are as addicted to certain foods. They use the same

neurotransmitters working in the same area in the brain, and most symptoms are similar (16).

2.1.2. Neurophysiology of Food Addiction

In the preclinical studies conducted, the homeostatic and non-homeostatic aspects of nutrition and their relationships with each other were examined. In a study defining that eating attitude is regulated by two different systems, homeostatic and hedonic, it is stated that nutrition will be at the ideal weight of everyone under the conditions controlled by homeostatic systems and nutrition will be perceived as a vital need like breathing. However, it is stated that the hedonic system is activated with the relationship between the brain reward system and the taste and pleasure process and as a result, some nutrients are consumed excessively (17, 18).

Biological behavioral models used for drug addiction were used in animal studies in which food addiction was investigated and some foods were found to cause dopamine release in the nucleus accumbens which is known to be important for the reward center (18-20).

The common finding found in these studies was that the brain reward system was activated as a result of consuming delicious foods (rich in sucrose and glucose) and that the ventral striatum, prefrontal cortex and amygdala were sensitive (21). Excessive consumption of these substances has been shown to increase dopamine release from the cingulate, hippocampus, nucleus accumbens, and locus ceruleus, and gene expression of dinorphin, an endogenous opioid located in the hypothalamic arcuate nucleus (22).

The common finding of all these studies on food addiction is that, despite the publications reporting that it is not associated with BMI (23, 24), obese people have a higher reward effect and therefore consume more food than those with low weight. and obese people are more prone to food addiction (5).

2.1.3. Symptoms of Food Addiction

The diagnosis of food addiction is made by examining behavioral symptoms like other addictions. There are 8 typical symptoms in food addicts; if 4-5 of these symptoms are present in the individual, they are diagnosed as food addicts (16). These symptoms are;

- Craving for some foods, even though they are saturated

- When you start eating these foods, you cannot stop yourself and eat more than necessary.
- Too much full-congestion after eating these foods
- Often feeling guilty while eating some food, but soon finding himself consuming it
- Often excuses about why she should eat craving food
- Try repeatedly to reduce or stop eating but fail
- Hide consuming unhealthy foods from individuals
- Unable to control the consumption of unhealthy foods even though he knows that he is doing physical harm (16).

2.1.4. Epidemiology of Food Addiction

Gearhardt et al. (2008), in the first study as the most common characteristics of food addiction: recurrent unsuccessful cessation (71.3%), although causing problems to continue (28.3%), eating behavior to start/to get food/long-term spending in the course of the end of the behavior (24.0%) expressed as. Among the subjects with healthy standard weight, the diagnosis was 11.4% in the Yale Food Addiction Scale (25). This ratio is 25 to 27.5% in individuals who are out of healthy normal weight, ie, obese, and their prevalence is approximately 2-3 times (26). The prevalence of food addiction in obese individuals is 17% - 52%. These amounts are thought-provoking but at the same time pioneering, more research should be done in the future (27).

2.1.5. Etiology of Food Addiction

Emotional changes during eating change the quality and quantity of eating behavior. In some people, these emotional changes may result in psychopathological processes such as obesity and binge eating behavior. Recently, the definition of food addiction has come up with different types of addiction. Brain imaging, self-report-based cross-sectional studies and behavioral experimental research revealed that individuals are sensitive to the reward effect of food they eat (85).

- Genetic predisposition,
- Distortion of Drd2 Receptors,
- Biological Table of the Person,
- One's Beliefs/Myths,

- Quality of Food Consumed

Food addiction has ideas of connection with the eating industry (25).

2.1.6. Research on Food Addiction

Food addiction is a term that has been on the agenda in recent years. Especially in obesity and people who eat excessive food addiction is suggested to be possible. It is examined whether the behaviors observed in these individuals are some kind of addiction. Although the results of laboratory, epidemiological, clinical and genetic investigations partially show the clinical validity of the food addiction model, neurobiological studies have identified similarities in the reward system in obesity and substance addiction (28). In current life, many people are described as happy when they eat. Based on these observations, the researchers stated that there is an abnormality in the reward system stimulated by eating. In a clinical study supporting this observation, it was found that adolescents who think that eating decreases negative affect and develops positive affect develop more binge eating behavior during 3-year follow-up compared to those who do not have this idea (29). In a similar study, it was stated that there was a significant effect of expectation that eating increases the positive affect in eating resilience of binge-eating behavior in 96-year-old women with bulimia neurosis during a 1-year follow-up period (30). On the other hand, overweight and seeking treatment, it was found that in the presence of negative emotions such as depression and anxiety, loss of control over eating behavior and eating as an emotion regulator occurred and depression rates were higher in these individuals (31). Similar findings found in studies emphasize that emotional regulation, which has an important place in addictive behavior, is observed in some eating behaviors and disorders. On the other hand, some of the researchers stated that the prevalence of depression and anxiety in people with binge eating disorder is frequently experienced in negative emotions and these negative processes can be one of the important triggers of binge eating attitude (32). In one study, it was found that emotional state affects food intake, normal or low-weight individuals eat less in negative emotional states, but overweight individuals eat more in such situations (33). In a study conducted with a group of obese women with binge eating behavior, it was found that these individuals ate more food (chocolate, etc.) in case of negative mood (34). With the increasing number of clinical studies on this subject, it will become clear whether cognitive, psychological and

neurobiological processes of food addiction can be interpreted in detail and defined as an addiction behavior (35).

2.2. Depression

Depression is a specific syndrome with deep sad, sometimes sad and depressed mood, slowing down in thought, speech, behavior and physiological functions, as well as worthlessness, smallness, weakness, reluctance, pessimism feelings and thoughts (36). Depression is manifested by the inability to enjoy and usual activities and situations that previously gave pleasure to the person, as well as the depressive mood of depression, pessimism, grief and sorrow. Although such emotions can be observed as a widespread response to adverse life events in humans, it is important not to consider every similar mood as a response to depression. In a real depression, such emotions are observed both continuously and intensely at the level of disrupting the daily life of the person. Psychomotor deceleration, which is manifested by a lack of energy in the mental and physical field, and a marked cognitive deceleration with limitation of thought content are observed (37).

Diagnosis should include depressive mood or lack of interest/desire, and one of the symptoms of anhedonia. In addition, despair, pessimistic thoughts, feelings of guilt, feelings of worthlessness, decreased self-confidence, repetitive death thoughts, difficulty in concentration, insomnia or excessive sleep, lack of appetite and weight loss or excessive appetite and weight gain must be present (38).

2.2.1. Epidemiology of Depression

Depression is a common disorder among psychiatric disorders. It is seen in approximately one in ten people in the society and the distribution among men and women varies considerably. It is reported that one in four women and one in every 8-10 men have had a depressive episode at least once in their lifetime. According to these data, it is seen that women are seen twice as much as men. In general, the prevalence rate of depression is reported to be between 9-20%. Major depression is a disease mostly observed in middle ages (20-40 years). The prevalence of lifetime major depression is reported to be 4.4% - 19.6% and 17%, with annual prevalence rates of 8% in women and 3% in men. The prevalence of lifelong dysthymia is 3.1-3.9% (39, 40).

There are publications suggesting that the distribution of major depression does not differ between races and ethnic groups, and that some differences between races are mainly due to the impact of socioeconomic status, as well as those suggesting a lower rate of major depression in the black race (41).

2.2.2. Risk factors

It has been reported that depression peaks between the ages of 20-50 and the average age of onset is in the mid-20s (42). Studies have shown that the prevalence and incidence of unipolar major depression is twice as high in women as in men. This incidence due to gender difference starts in early adulthood, reaches the most significant level between the ages of 30-45 and continues in old age. However, recent studies indicate that the incidence of depression in young age increases (42-45).

It has been suggested that low socioeconomic status may cause depressive symptoms. Factors such as low level of education, poor living conditions and unemployment have specific characteristics (44). In previous studies, it was suggested that the incidence and prevalence of depression were related to socioeconomic level, and later studies revealed that conflicting findings were obtained and that depression had the highest rates of income in our country (42).

Major depression has a significant effect on daily life and seriously deteriorates the quality of life and health perception. Patients complain of the problems caused by their negative affections in their daily lives, as well as fatigue, exhaustion and loss of functionality and think that their physical health is impaired.

2.3. Eating as Emotional Regulator

In current life, many people have described that they are happy when they eat. Based on these observations, the researchers found that people who think that eating causes positive affect is an abnormality in the reward system induced by eating. In a clinical study supporting this observation, it was found that adolescents who think that eating reduces negative affect and develops positive affect develop more binge eating behaviors during the 3-year follow-up compared to those who do not have this idea (29). In a similar study, it was found that 96-year-old women diagnosed with bulimia neurosis had an important role in the expectation that eating increases the positive affect in the binge eating behavior during the 1-year follow-up period (30). On the other hand, in overweight and seeking

treatment, it was found that in the presence of negative emotions such as depression and anxiety, losing control over eating behavior and eating as an emotion regulator occurred and depression rates were higher in these people (31).

Some of the researchers stated that the high prevalence of depression and anxiety in people with binge eating disorder is frequently experienced by negative moods and these negative processes may be one of the important triggers of binge eating behavior (32). In a study, it was seen that emotional state affects food intake, normal or low-weight people eat less in negative emotional situations, but overweight people eat less food in such cases (46). A study of obese women (n = 40) with a group of binge eating behaviors found that these people ate more food (chocolate, etc.) in case of negative mood (sadly watching movies) (34). On the other hand, 1-2 hours after consumption of foods rich in carbohydrates, it was found that feelings such as anger and tension subsided and high blood sugar levels were associated with decreased tension (47). In addition, impulsivity is important in the etiopathogenesis of obesity and it is stated that the disorder in the reward system results in impulsive eating (48).

Emotional changes during eating change the quality and quantity of eating behavior. In some people, these emotional changes may result in psychopathological processes such as obesity and binge eating behavior.

2.4. Food Addiction and Treatment

It is difficult to treat patients with food addiction. Because the individual is likely to have many diseases and has an attitude to deny the dangers posed by the disease. Thus, they exhibit an ambivalent attitude towards treatment (49). The rate of discontinuation of treatment in individuals with food addiction is quite high. Mahon (2000) defined the concept of cessation of treatment as the termination of treatment upon unilateral consent of the patient's treatment process. In adolescent individuals, care should be taken as a measure of discontinuation of treatment as motivation. The reason for this is the decision to stop treatment in adolescents by the family (50).

Studies have suggested that a multifaceted form of treatment including medical care, psychopharmacotherapy, psychoeducation and individual therapy may be effective in the treatment plan for food addiction (51). The clinical evaluation and treatment plan for patients with food addiction consists of many experts; psychiatrist, pediatric specialist,

internal medicine specialist, clinical psychologist, family doctor, dentist, dietitian, social worker, psychiatric nurse and many other specialists in the field should be treated together (52). Regardless of the method chosen for treatment, the priority should be to establish a trust relationship with the patient. The reason for this is the lack of trust in interpersonal relationships in their lives, the willingness to keep the control in their hands and their efforts to treat are generally low and their attitude towards treatment is ambivalent so the trust relationship between the specialist and the patient is an important factor (53). In another aspect, since the disease has an egosyntonic side, it should be ensured that the patient's awareness about the disease should be increased and then medical support should be provided and treatment plan should be prepared and applied by considering other comorbid diseases and psychopathologies (54). There are also many types of therapies such as pharmacotherapy, nutritional therapy, cognitive behavioral therapy, psychodynamic therapies, motivational, interpersonal therapies and family therapy (27).

3. MATERIALS AND METHODS

3.1. Research Place and Sample Selection

The sample of the study consisted of women aged 18 years and older who applied to a private center in Çekmeköy, Istanbul. When the sample size and the prevalence of food addiction were determined as 9% (based on the data in the literature), it was calculated as 126 people with 95% confidence interval and 5% error margin, and it was decided to reach 150 people with a waste share.

Inclusion criteria of the participants in the group formed;

- 1) Applying to designated nutrition counseling and training center,
- 2) Being woman
- 3) Being 18 years and older
- 4) Volunteering for participation in the study

The exclusion criteria of the participants were;

- 1) Being man
- 2) Being under 18 years
- 3) Pregnant or lactating

3.2. Data Collection Tools

Firstly, the participants participated in the study by reading and signing the informed consent form, and after a face-to-face interview, anthropometric measurements, Yale Food Addiction Scale (YFAS), Beck Depression Inventory (BDI) and a questionnaire covering the general characteristics of the individuals were applied.

The body weight measurements of the participants were 270 kg sensitive, calibrated with TANITA MC 780 MA precision weighing and height measurements. head, hips and heels were measured with tape measure to touch the wall. Body Mass Indexes (BMI) were calculated by dividing the body weight by the square of the length in centimeters. Using WHO's BMI reference values table for adult individuals, those with a BMI of less than 18.5 kg/m² are weak, those with a range of 18.5-24.9 kg/m² are normal, those with a range of 25.0 and 29.9 kg/m² are light weight and those with a BMI of higher than 30.0 kg/m² are overweight (86).

3.2.1. Yale Food Addiction Scale (YFAS)

For the purpose of the study, the Yale Food Addiction Scale (YFAS), which was developed by Gearhardt, Corbin and Brownell in 2009, then validity and reliability study was performed by Bayraktar et al, In 2012 (55).

In the study, Ashley N. Gearhardt et al. developed by YFAS to determine the symptoms of dependence on certain types of food, Bayraktar et al. The version adapted to Turkish has been used. YFAS is a 27-item scale used to detect addiction-like eating behaviors in the last twelve months. The questions included in the scale were similar to the criteria for substance addiction in DSM-IV and the test was developed according to these criteria. The subtests are as follows:

1. Excessive uptake of substance over a longer period of time than expected

Question #1 #2 #3

2. Ongoing request or repeated failures to drop

Question #4 #22 #24 #25

3. Spending much time and taking action to procure, use and overcome

Question #5 #6 #7

4. Abandon or decrease social, professional and leisure activities

Question #8 #9 #10 #11

5. Continue to use although it is known to have poor results

Question #19

6. Tolerance development (reduction in effect amount)

Question #20 #21

7. Characteristic withdrawal symptoms, substance use to reduce withdrawal symptoms

Question #12 #13 #14

8. Clinically significant disruption of use

Question #15 #16

Deduction Points

0: for questions that do not meet the criteria significantly

1: For questions that meet the question criteria

The following questions are scored as follows: 0 = (0) 1 = (1) #19 #20 #21 #22

The following questions were scored as follows: 0 = (1) 1 = (0) #24 (Reverse scoring)

The following questions are scored as follows: 0 = (0 to 1) 1 = (2 to 4) #8 #10 #11

The following questions are scored as follows: 0 = (0 to 2) 1 = (3 and 4) #3 #5 #7 #9 #12
#13 #14 #15 #16

The following questions are scored as follows: 0 = (0 to 3) 1 = (4) #1 #2 #4 #6 #25

The following questions were not rated but pioneered for other questions: #17 #18 #23

Scoring

After deduction scores were calculated, the sum of the questions related to substance addiction criterion was taken. (eg Tolerance, withdrawal, clinical sensitivity). If the criterion for the score is greater than or equal to 1, the criterion is met and scored as 1. If the score is 0, the criterion is not met.

In the calculation of the continuous version of the scale, all the scores included in each criterion were added except the clinical sensitivity score. The number of symptoms ranges from 0 to 7. Similarly to substance addiction diagnosis, the score for clinical sensitivity should be equal to 1 and the number of symptoms should be equal to 3 or more than 3. In the present study, individuals were evaluated according to both scoring options (3).

3.2.2. Beck Depression Inventory (BDI)

Beck Depression Inventory (BDI) was used to determine negative, emotional, cognitive and motivational symptoms of depression in women. This scale developed by Beck et al. (1961) was adapted to Turkish by Hisli (1988) (56). It is a self-assessment scale consisting of twenty-one questions. According to the severity of depression, each sentence is ranked from 0 to 3. The scores obtained from the sentences marked by individuals for each item ranged between 0-63. In the study, 17 points were accepted as the cut-off point to determine clinical depression (3).

3.3. Statistical Analysis of Data

The data were analyzed with Statistical Package for Social Science (SPSS). Numerical variables; mean, standard deviation (SD), median, lower and upper values and

categorical variables were shown as number (n) and percentage (%). Confidence interval was 95% for all analyzes and the results were considered statistically significant for $p < 0.05$.

The data obtained from the study were analyzed by using SPSS for Windows 25.0. Descriptive statistical methods (number, percentage, mean, standard deviation) were used to evaluate the data. The data used in the survey were found to be normal distribution.

Compliance with normal distribution can be examined by drawing the Q-Q Plot (Chan, 2003: 280-285). In addition, the normal distribution of the data used depends on the skewness and kurtosis values being within ± 3 (Shao, 2002). Contrary values increase the value of the variance of the error and have an effect on the power of statistical tests. For this reason, it was examined whether the outliers were present in the data sets before statistical tests.

Parametric tests were used for statistical analysis of data with normal distribution. In order to find the difference between the two groups in the comparison of the quantitative data with the normal distribution data, independent t test was applied. Chi-square analysis was used to test the relationship between categorical variables.

4. RESULTS

Distribution of women participating in the study according to demographic characteristics is given in the Table 4.1.

Table 4. 1. Distribution of women participating in the study according to demographic characteristics

	Variables	n	%
Age	18-24	21	14.0
	25-29	34	22.7
	30-35	29	19.3
	36-41	27	18.0
	42 years and older	39	26.0
Marital status	Married	92	61.3
	Single	58	38.7
Education	Primary school and below	18	12.0
	Middle School	7	4.7
	High school	51	34.0
	University	74	49.3
Job	Housewife	50	33.3
	Officer	13	7.8
	Self-employment	13	7.8
	Retired	3	2.0
	Worker	15	10.0
	Other	56	37.3
Socio-Economic Level	Low	11	7.3
	Middle	127	84.7
	High	12	8.0
Weight Problem in the Past	Yes	105	70.0
	No	45	30.0
Diet Status Before	Yes	116	77.3
	No	34	22.7
Diet Status Now	Yes	150	100.0
	No	0	0.0
Diet Type	Weight Loss Diet	130	86.7
	Weight Gain Diet	4	2.6
	Weight Preservation Diet	13	7.8
	Other	3	2.0
Chronic Disease Status	Yes	46	30.7
	No	104	69.3
Total		150	100.0

When the distribution of the participants according to their marital status is examined, it is seen that 61.3% of the women are married and 38.7% are single.

When the distribution of women participating in the study according to their socio-economic status is examined, it is seen that 7.3% of women are low, 84.7% are medium and 8% are high. When the distribution of women according to their past weight problems was examined, it was seen that 70% of the women answered yes and 30% of them answered no.

It is seen that 77.3% of the women had dieted before and 22.7% had not dieted before. It is seen that 100% of the women participating in the research are currently on a diet. When the distribution of women according to their diet types is examined, it is seen that 86.7% of women are weight loss diet, 2.6% are weight gain diet, 8.7% are weight preservation diet and 2% are other.

Table 4.2. The relationship between demographic characteristics and food addiction of women

Variables	Not Food Addict (n = 116)		Food Addict (n = 34)		Total (n = 150)		p	
	n	%	n	%	n	%		
Age	18-24	16	13.8	5	14.7	21	14.0	0.458
	25-29	29	25.0	5	14.7	34	22.7	
	30-35	24	20.7	5	14.7	29	19.3	
	36-41	18	15.5	9	26.5	27	18.0	
	42 years and older	29	25.0	10	29.4	39	26.0	
Marital status	Married	71	61.2	21	61.8	92	61.3	1.000
	Single	45	38.8	13	38.2	58	38.7	
Education	Primary school and below	15	12.9	3	8.8	18	12.0	0.747
	Middle School	6	5.2	1	2.9	7	4.7	
	High school	41	35.3	10	29.4	51	34.0	
	University	54	46.6	20	58.8	74	49.3	
Job	Housewife	39	33.6	11	32.4	50	33.3	0.568
	Officer	9	7.8	4	11.8	13	7.8	
	Self-employment	12	3.10	1	2.9	13	7.8	
	Retired	2	1.7	1	2.9	3	2.0	
	Worker	13	11.2	2	5.9	15	10.0	
Socio-Economic Level	Other	41	35.3	15	44.1	56	37.3	0.325
	Low	10	8.6	1	2.9	11	7.3	
	Middle	95	81.9	32	94.1	127	84.7	
	High	11	9.5	1	2.9	12	8.0	

* p < 0.05 (Chi-square test was used to calculate p values.)

Table 4.2. The relationship between demographic characteristics and food addiction of women (continuation of the table)

Variables		Not Food Addict (n = 116)		Food Addict (n = 34)		Total (n = 150)		p
		n	%	n	%	n	%	
Weight Problem in the Past	Yes	77	66.4	28	82.4	105	70.0	0.090
	No	39	33.6	6	17.6	45	30.0	
Diet Status Before	Yes	88	75.9	28	82.4	116	77.3	0.493
	No	28	24.1	6	17.6	34	22.7	
Dietary Status Now	Yes	116	100.0	34	100.0	150	100.0	-
	No	0	0.0	0	0.0	0	0.0	
Diet Type	Weight Loss Diet	98	84.5	32	94.1	130	86.7	0.691
	Weight Gain Diet	4	3.4	0	0.0	4	2.7	
	Weight Preservation Diet	11	9.5	2	5.9	13	7.8	
	Other	3	2.6	0	0.0	3	2.0	
Chronic Disease Status	Yes	31	26.7	15	44.1	46	30.7	0.060
	No	85	73.3	19	55.9	104	69.3	
Total		116	100.0	34	100.0	150	100.0	

* p <0.05 (Chi-square test was used to calculate p values.)

The distribution of demographic characteristics of the women participating in the study according to their food addiction is given in the Table 4.2. Chi-square analysis was used to test whether there was a relationship between demographic characteristics and food addiction of women. According to the results of the analysis, there was no statistically significant relationship between demographic characteristics and food addiction of women (p>0.05).

Table 4.3. The relationship between demographic characteristics and depression risk status of women

Variables	No Depression Risk (n = 114)		Depression Risk (n = 36)		Total (n = 150)		P	
	n	%	n	%	n	%		
Age	18-24	17	14.9	4	11.1	21	14.0	0.953
	25-29	25	9.21	9	25.0	34	22.7	
	30-35	23	20.2	6	16.7	29	19.3	
	36-41	20	17.5	7	19.4	27	18.0	
	42 years and older	29	25.4	10	27.8	39	26.0	
Marital status	Married	69	60.5	23	63.9	92	61.3	0.718
	Single	45	39.5	13	36.1	58	38.7	
Education	Primary school and below	14	3.12	4	11.1	18	12.0	0.514
	Middle School	4	3.5	3	3.8	7	4.7	
	High school	37	32.5	14	38.9	51	34.0	
	University	59	51.8	15	41.7	74	49.3	
Job	Housewife	38	33.3	12	33.3	50	33.3	0.089
	Officer	11	9.6	2	5.6	13	7.8	
	Self-employment	13	11.4	0	0.0	13	7.8	
	Retired	2	1.8	1	2.8	3	2.0	
	Worker	13	11.4	2	5.6	15	10.0	
	Other	37	32.5	19	52.8	56	37.3	
	Socio-Economic Level	Low	7	6.1	4	11.1	11	
Middle	95	83.3	32	88.9	127	84.7		
High	12	5.10	0	0.0	12	8.0		
Weight Status in the Past	Yes	77	67.5	28	77.8	105	70.0	0.169
	No	37	32.5	8	22.2	45	30.0	
Diet Status Before	Yes	87	76.3	29	80.6	116	77.3	0.390
	No	27	23.7	7	19.4	34	22.7	
Dietary Status Now	Yes	114	100.0	36	100.0	150	100.0	-
	No	0	0.0	0	0.0	0	0.0	
Diet Type	Weight Loss Diet	96	84.2	34	94.4	130	86.7	0.404
	Weight Gain Diet	3	2.6	1	2.8	4	2.7	
	Weight Preservation Diet	12	5.10	1	2.8	13	7.8	
	Other	3	2.6	0	0.0	3	2.0	
Chronic Disease Status	Yes	31	27.2	15	41.7	46	30.7	0.077
	No	83	72.8	21	58.3	104	69.3	
Total		114	100.0	36	100.0	150	100.0	

* p <0.05 (Chi-square test was used to calculate p values.)

Distribution of demographic characteristics of the women according to their depression risk status is given in the Table 4.3. Chi-square analysis was used to test whether there was a relationship between demographic characteristics and depression risk

status of women. According to the results of the analysis, no significant relationship was found between demographic and depression risk status of women ($p>0.05$).

Table 4.4. Comparison of mean, anthropometric measurements and body composition values of women according to their food addiction.

	Food Addict				p
	No (n = 116)		Yes (n = 34)		
	Lower-upper value	X ± S	Lower-upper value	X ± S	
Age (years)	18-67	34.68 ± 10.16	18-58	36.05 ± 10.18	0.488
Body weight (kg)	45.50-143.80	72.21 ± 15.74	57.30-144	80.69 ± 19.10	0.009 *
Length (cm)	143-182	161.06±6.45	151-173	162.50 ± 6.59	0.257
BMI (kg/m ²)	17-52.2	27.84 ± 5.84	22.3-57.7	30.53 ± 7.01	0.026 *
Waist circumference (cm)	64-127	88.39 ± 13.41	74-125	94.32 ± 12.66	0.023 *
Hip circumference (cm)	87-160	109.12 ± 12.06	94-164	114.44 ± 14.27	0.032 *
Waist/hip	0.67-0.94	0.80 ± 0.06	0.70-0.94	0.82 ± 0.05	0.174
Waist/length	0.38-0.86	0.54 ± 0.08	0.45-0.79	0.58 ± 0.07	0.059
Body fat mass (kg)	6.30-83	25.25 ± 11.31	15.70-183	34.71 ± 28.80	0.005 *
Body fat percentage (%)	13.90-48.30	32.87 ± 6.72	26.20-51.60	35.93 ± 5.81	0.018 *
Lean body mass (kg)	36-74.40	47.60 ± 6.38	39.40-69.70	50.79 ± 7.75	0.016 *
Lean body percentage (%)	47.50-86.10	66.96 ± 6.97	48.40-73.80	64.06 ± 5.81	0.029 *
Muscle Mass (kg)	34.20-70.70	45.18 ± 6.07	37.40-66.20	48.22 ± 7.36	0.016 *

* $p < 0.05$ (independent t test was used to calculate p values.)

Independent t test was used to compare age, anthropometric measurements and mean body composition of women participating in the study according to their food addiction. According to the test results, there was a statistically significant difference between the mean values of body weight, BMI, waist circumference, hip circumference, body fat mass, body fat percentage, lean body mass, lean body percentage and muscle mass values according to the status of women being food addiction. ($p < 0.05$).

Body weight, BMI values, waist circumference, hip circumference, body fat mass, body fat percentage, lean body mass, lean body percentage and muscle mass values of the food addicted women were found to be higher than those who were not addicted to eating.

The comparison of mean, anthropometric measurements and body composition values of women according to their depression risk status is shown in Table 4.5.

Table 4. 5. The comparison of mean, anthropometric measurements and body composition values of women according to their depression risk status

	Depression Risk Status				p
	None (n = 114)		Yes (n = 36)		
	Lower-upper value	X ± S	Lower-upper value	X ± S	
Age (years)	18-67	34.74 ± 10.01	21-64	35.77 ± 10.66	0.596
Body weight (kg)	45.50-143.80	71.90 ± 15.89	54.70-144	81.17 ± 18.16	0.004 *
Length (cm)	143-182	161.42±6.52	148-176	161.25 ± 6.50	0.885
BMI (kg/m²)	17-52.2	27.53 ± 5.46	22.5 ± 57.7	31.34 ± 7.50	0.001 *
Waist circumference (cm)	64-124	87.86 ± 13.01	74-127	95.66 ± 13.23	0.002 *
Hip circumference (cm)	87-160	108.26 ± 11.75	98-164	116.75 ± 13.76	0.000 *
Waist/hip	0.67-0.93	0.80 ± 0.06	0.71-0.94	0.81 ± 0.06	0.420
Waist/length	0.38-0.76	0.54 ± 0.08	0.46-0.86	0.86 ± 0.59	0.002 *
Body fat mass (kg)	6.30-183.00	26.47 ± 18.53	16-74.30	30.31 ± 12.21	0.247
Body fat percentage (%)	13.90-48.30	32.73 ± 6.58	26.50-51.60	36.22 ± 6.18	0.006 *
Lean body mass (kg)	36-74.40	47.52 ± 6.64	38.70-69.70	50.87 ± 6.86	0.010 *
Lean body percentage (%)	47.50-86.10	67.10 ± 6.83	48.40-73.40	63.77 ± 6.18	0.010 *
Muscle Mass (kg)	34.20-70.70	45.11 ± 6.31	36.70-66.20	48.28 ± 6.52	0.010 *

* p <0.05 (independent t test was used to calculate p values.)

Independent t test was used to compare age, anthropometric measurements and mean body composition according to depression risk status of women. According to the test results, there was a statistically significant difference between the mean values of body weight, BMI, waist circumference, hip circumference, body fat percentage, lean body mass, lean body percentage and muscle mass values according to the depression risk status of women (p<0.05).

Women with depression risk had higher mean body weight, BMI, waist circumference, hip circumference, body fat percentage, lean body mass, lean body percentage, and muscle mass than women without depression risk.

Table 4.6. The relationship between BMI values of women according to their food addiction

BMI (kg/m ²)	Not Food Addict (n = 116)		Food Addict (n = 34)		Total (n = 150)		p
	n	%	n	%	n	%	
Underweight (18.5 and under)	3	2.6	0	0.0	3	2.0	0.559
Normal Weight (18.5-24.9)	33	28.4	8	23.5	41	27.3	
Overweight (25-29.9)	46	39.7	11	32.4	57	38.0	
I. Degree of Obese (30-34.5)	22	19.0	8	23.5	30	20.0	
II. Degree of Obese (35-39.9)	8	6.9	5	14.7	13	7.8	
III. Degree of Obese (40 and above)	4	3.4	2	5.9	6	4.0	
Total	116	100.0	34	100.0	150	100.0	

* p <0.05 (Chi-square test was used to calculate p values.)

The distribution of BMIs of women participating in the study according to being food addiction is given in the Table 4.6. Chi-square analysis was used to test whether there was a relationship between BMI values of women and food addiction. According to the results of the analysis, it was seen that there was no statistically significant relationship between BMI values and food addiction of women (p>0.05).

Table 4.7. The relationship between BMI values of women according to depression risk status

BMI (kg/m ²)	No Depression risk (n=114)		Depression risk (n=36)		Total (n=150)		p
	n	%	n	%	n	%	
Underweight (18.5 and under)	3	2.6	0	0.0	3	2.0	0.022 *
Normal Weight (18.5-24.9)	35	30.7	6	16.7	41	27.3	
Overweight (25-29.9)	46	40.4	11	30.6	57	38.0	
I. Degree of Obese (30-34.5)	18	15.8	12	33.3	30	20.0	
II. Degree of Obese (35-39.9)	10	8.8	3	3.8	13	7.8	
III. Degree Obese (40 and above)	2	1.8	4	11.1	6	4.0	
Total	114	100.0	36	100.0	150	100.0	

* p <0.05 (Chi-square test was used to calculate p values.)

The distribution of BMIs according to depression risk status of the women participating in the study is given in the Table 4.7. Chi-square analysis was used to test whether there was a relationship between BMI values and depression risk status of women. According to the results of the analysis, there was a statistically significant relationship between BMI values and depression risk status of women ($p < 0.05$).

Table 4.8. Comparison of the mean number of food addiction symptoms and depression risk score according to the women's food addiction

	Not Food Addict (n = 116)			Food Addict (n = 34)			p
	Lower-upper value	Median	X ± S	Lower-upper value	Median	X ± S	
Depression risk score	0-36	9.50	11.09 ± 8.17	0-34	13.00	15.00 ± 8.49	0.016 *
Number of symptoms of food addiction	0-6	3.00	2.80 ± 1.12	3-6	5.00	4.47 ± 0.89	0.000 *

* $p < 0.05$ (independent t test was used to calculate p values.)

Independent t-test was used to compare the mean scores of depression risk score and the number of symptoms of food addiction according to the women's food addiction. According to the results of the test, it was seen that there was a statistically significant difference between the depression risk score and the mean number of symptoms of food addiction according to the status of food addiction ($p < 0.05$). It was seen that the depression risk score and the number of symptoms of food addiction of the food addicts were higher than the non-addictive women.

Table 4.9. The relationship between food addiction and meeting the criteria of food addiction

Food addiction criteria		Not Food Addict (n = 116)		Food Addict (n = 34)		Total (n = 150)		P
		n	%	n	%	n	%	
Excessive uptake of substance over a longer period of time than expected	No	84	72.4	5	14.7	89	59.3	0.000 *
	Yes	32	27.6	29	85.3	61	40.7	
Ongoing request or repeated failures to drop	No	15	12.9	4	11.8	19	7.12	0.561
	Yes	101	87.1	30	88.2	131	87.3	
To spend too much time and to take action to procure, use and overcome	No	94	81.0	6	17.6	100	66.7	0.000 *
	Yes	22	19.0	28	82.4	50	33.3	
Abandon or decrease social, professional and leisure activities	No	102	87.9	18	52.9	120	80.0	0.000 *
	Yes	14	12.1	16	47.1	30	20.0	
Abandon or decrease social, professional and leisure activities	No	52	44.8	26	76.5	78	52.0	0.001 *
	Yes	64	55.2	8	23.5	72	48.0	
Tolerance development (decrease in effect, increase in quantity)	No	38	32.8	19	55.9	57	38.0	0.015 *
	Yes	78	67.2	15	44.1	93	62.0	
Characteristic withdrawal symptoms, substance use to reduce withdrawal symptoms	No	102	87.9	8	23.5	110	73.3	0.000 *
	Yes	14	12.1	26	76.5	40	26.7	
Clinically significant disruption of use	No	113	97.4	-	-	113	75.3	0.000 *
	Yes	3	2.6	34	100.0	37	24.7	
Total		116	100.0	34	100.0	150	100.0	

* p <0.05 (Chi-square test was used to calculate p values.)

Chi-square analysis was used to test the relationship between food addiction and meeting the criteria of food addiction. According to the results of the chi-square analysis, it is seen that there is a statistically significant relationship between “excessive uptake of substance over a longer period of time than expected”, “ongoing request or repeated failures to drop”, “to spend too much time and to take action to procure, use and overcome”, “abandon or decrease social, professional and leisure activities”, “tolerance development (decrease in effect, increase in quantity)”, “characteristic withdrawal symptoms, substance use to reduce withdrawal symptoms” and “clinically significant disruption of use” and being food addict (p<0.05).

Table 4. 10. The relationship between food addiction and nutritional problems of women

Food problem		Not Food Addict (n = 116)		Food Addict (n = 34)		Total (n = 150)		p
		n	%	n	%	n	%	
Ice cream	No	81	69.8	25	73.5	106	70.7	0.677
	Yes	35	30.2	9	26.5	44	29.3	
Chocolate/Wafer	No	49	42.2	11	32.4	60	40.0	0.301
	Yes	67	57.8	23	67.6	90	60.0	
Apple	No	104	89.7	34	100.0	138	92.0	0.040 *
	Yes	12	3.10	0	0.0	12	8.0	
Donat/Sweet Donut	No	104	89.7	29	85.3	133	88.7	0.481
	Yes	12	3.10	5	14.7	17	11.3	
Cauliflower	No	112	96.6	34	100.0	146	97.3	0.353
	Yes	4	3.4	0	0.0	4	2.7	
Cookies/biscuits	No	78	67.2	10	29.4	88	58.7	0.000 *
	Yes	38	32.8	24	70.6	62	41.3	
Cake	No	67	57.8	8	23.5	75	50.0	0.000 *
	Yes	49	42.2	26	76.5	75	50.0	
Candy/Confectionery	No	97	83.6	25	73.5	122	81.3	0.184
	Yes	19	16.4	9	26.5	28	18.7	
Bread	No	87	75.0	14	41.2	101	67.3	0.000 *
	Yes	29	25.0	20	58.8	49	32.7	
Pastry	No	92	79.3	18	52.9	110	73.3	0.002 *
	Yes	24	20.7	16	47.1	40	26.7	
Lettuce	No	113	97.4	34	100.0	147	98.0	0.460
	Yes	3	2.6	0	0.0	3	2.0	
Pasta	No	81	69.8	18	52.9	99	66.0	0.068
	Yes	35	30.2	16	47.1	51	34.0	
Strawberry/Cherry/Grape	No	101	87.1	31	91.2	132	88.0	0.379
	Yes	15	12.9	3	8.8	18	12.0	
Rice	No	84	72.4	18	52.9	102	68.0	0.032 *
	Yes	32	27.6	16	47.1	48	32.0	
Cracker	No	110	94.8	31	91.2	141	94.0	0.332
	Yes	6	5.2	3	8.8	9	6.0	
Chips	No	76	65.5	27	79.4	103	68.7	0.125
	Yes	40	34.5	7	20.6	47	3.31	
Bagel	No	76	65.5	19	55.9	95	63.3	0.305
	Yes	40	34.5	15	44.1	55	36.7	
Fried potatoes	No	71	61.2	16	47.1	87	58.0	0.142
	Yes	45	38.8	18	52.9	63	42.0	
Carrot	No	114	98.3	34	100.0	148	98.7	0.597
	Yes	2	1.7	0	0.0	2	1.3	
Total		116	100.0	34	100.0	150	100.0	

* p < 0.05 (Chi-square test was used to calculate p values.)

Table 4. 10. The relationship between food addiction and nutritional problems of women (continuation of the table)

Food problem		Not Food Addict (n = 116)		Food Addict (n = 34)		Total (n = 150)		p
		n	%	n	%	n	%	
Red meat	No	102	87.9	31	91.2	133	88.7	0.431
	Yes	14	12.1	3	8.8	17	11.3	
Banana	No	107	92.2	29	85.3	136	90.7	0.184
	Yes	9	7.8	5	14.7	14	9.3	
Bacon/Sausage/Salami	No	100	86.2	28	82.4	128	85.3	0.376
	Yes	16	13.8	6	17.6	22	14.7	
Hamburger	No	87	75.0	26	76.5	113	75.3	0.861
	Yes	29	25.0	8	23.5	37	24.7	
Toast/Cheese Sandwich	No	98	84.5	27	79.4	125	83.3	0.485
	Yes	18	15.5	7	20.6	25	16.7	
Pizza/Lahmacun/Doner	No	79	68.1	18	52.9	97	64.7	0.104
	Yes	37	31.9	16	47.1	53	35.3	
Coke/Soda	No	91	78.4	22	64.7	113	75.3	0.102
	Yes	25	21.6	12	35.3	37	24.7	
Cheese (Feta, cheddar, etc.)	No	105	90.5	27	79.4	132	88.0	0.078
	Yes	11	9.5	7	20.6	18	12.0	
None of the above	No	113	97.4	33	97.1	146	97.3	0.647
	Yes	3	2.6	1	2.9	4	2.7	
Total		116	100.0	34	100.0	150	100.0	

The chi-square analysis was applied to test the relationship between the food addiction of the women and the foods they had problems with. According to the results of the chi-square analysis, it was observed that there was a statistically significant relationship between food addiction of women and having problems in apple, cookie/biscuit, cake, bread, donut/pastry and rice foods ($p < 0.05$).

5. DISCUSSION

The number of individuals participating in the study was 150 and the frequency of food addiction was 22.7%. In many studies about food addiction, the frequency of food addiction varies between 2.8% and 26.7% (57-67). Similarly, in a systematic review on this subject, the weighted average prevalence of food addiction was found to be 19.9% by the meta-analysis method (68). Due to the fact that the present study was performed in slightly obese/obese individuals, the prevalence of food addiction was higher in this study than in the general population. However, unlike the results of the present study, the prevalence of food addiction was found to be 15.2% in a study conducted in weight-loss and obese individuals (69), whereas the frequency of food addiction in bariatric surgery candidate individuals was reported to be 14% to 16.5%. (70 , 71). In another study conducted in obese individuals, the frequency of food addiction was found to be 32% similar to the results found in the present study (72). It is thought that this may be caused by differences in sample characteristics (race, gender, etc.) and size. While the prevalence of food addiction was found to be 41.5% and 72.8% (73-75) in studies conducted in individuals with eating disorders (96-98), the frequency of food addiction was found to be 70% in 334 individuals with Type 2 DM (76). In these studies, it is thought that the frequency of food addiction is higher than the results of the present study, and it is thought to be effective in clinical groups.

In the present study, it was seen that body weight, BMI values, waist circumference, hip circumference, body fat mass, body fat percentage, lean body mass, lean body percentage and muscle mass values of the women who were addicted to food were higher than those who were not addicted to food. Similarly, in another study, anthropometric measurement and body composition values were found to be significantly higher in food addicted (FA) patients than in the control group; While the mean BMI was $31.8 \pm 6.6 \text{ kg/m}^2$ in FA patients, $27.2 \pm 5.2 \text{ kg/m}^2$ in patients without food addiction (WFA), waist circumference was $105.5 \pm 15.2 \text{ cm}$ in FA patients, and $94.4 \pm 14,6$ in WFA patients. While the mean hip circumference was $110.7 \pm 14.7 \text{ cm}$ in FA patients, $99,9 \pm 11,7 \text{ cm}$ in WFA patients; the mean body fat percentage in the FA was $41.04 \pm 9.3\%$ and $32.8 \pm 10,05\%$ in the WFA patient has been reported (59). In another study, the average BMI was found to be higher in those who met the criteria for food addiction than those who did not (79). In

another study, mean body weight and BMI were found to be significantly higher in the FA group compared to the WFA group (60). Likewise, another study found a significant correlation with high BMI and food addiction. While the mean value of BMI in FA patients was $31.14 \pm 10.39 \text{ kg/m}^2$, it was $27.72 \pm 7.73 \text{ kg/m}^2$ in individuals WFA (61). Similarly, in many studies conducted with these results, it was observed that FA individuals had significantly higher BMI than WFA patients (67, 76, 80). Although most of the studies on this subject have higher BMI values FA individuals, there are also studies showing no difference in BMI between YB and WFA groups (69, 77, 78).

In a study examining the relationship between food addiction and BMI, 15% of overweight individuals were found to be FA, while 24% of obese individuals were found to be FA (79). 88.6% of FA patients are overweight/obese (59), FA patients are classified as obese more than WFA patients (76) and the prevalence of food addiction positively associated with BMI (57) is also available in the literature. In a systematic review study on this subject, the prevalence of food addiction was found to be higher in overweight/obese individuals. Prevalence of food addiction has been reported to be 2-fold higher in overweight/obese individuals than healthy bodyweight (68). In a present study, unlike many previous studies, no significant difference was found between FA and WFA in terms of BMI classification ($p > 0.05$). Similarly, in another study conducted on 1067 women, no relationship was found between food addiction and BMI classification (63).

In this study, it is seen that there is a statistically significant relationship between "excessive uptake of substance over a longer period of time than expected", "ongoing request or repeated failures to drop", "to spend too much time and to take action to procure, use and overcome", "abandon or decrease social, professional and leisure activities", "tolerance development (decrease in effect, increase in quantity)", "characteristic withdrawal symptoms, substance use to reduce withdrawal symptoms" and "clinically significant disruption of use" and being food addict. Similar to the results of the present study, in another study, the incidence of each of the seven Yale Food Addiction Scale symptoms was significantly higher in group FA than in group WFA (60). In another study, the incidence of all symptoms except "ongoing desire or recurrent failures to quit" was found to be significantly higher in FA individuals than in WFA groups (70).

In the present study, it was observed that there was a statistically significant relationship between food addiction of women and having problems in apple, cookie/biscuit, cake, bread, donut/pastry and rice foods. In another study, the most common problems of individuals with eating addiction are; chocolate/wafer, cake, french fries, cookies/biscuits, bread, pastry, pizza/lahmacun/doner. In the non-addictive group, the most common problems were the nutrients; cake, chocolate/wafer, cookie/biscuit, french fries, bagels, bread. Since food addicts cause excessive eating desire and due to excessive eating, ice cream, chocolate / wafer, donut / doner have been significantly more problematic than non-food addicts. There was no significant difference between the two groups in terms of having problems with other foods (3). In other studies on food addiction in adults, no findings related to nutritional problems were found. However, in a study conducted in children, the most frequently reported problem was the nutrients experienced; chocolate/wafers, ice cream, cola/soda, french fries, bread, rice, sugar/sweets, chips and pasta (87). In previous studies, it has been stated that obese eating addicts may consume hyper-delicious foods containing high amounts of fat, sugar and sodium more (88). High YFAS symptom score has been reported to be associated with a higher percentage of energy from nutrient-poor nutrients, including confectionery, packaged and baked sweet products (60).

In the present study, the prevalence of depression risk in women was 24% and according to the test results, according to the depression risk status of women, body weight, BMI values, waist circumference, hip circumference, body fat percentage, lean body mass, lean body percentage and muscle mass values were statistically difference. Women with depression risk had higher mean body weight, BMI, waist circumference, hip circumference, body fat percentage, lean body mass, lean body percentage, and muscle mass than women without depression risk.

In the previous studies, it was suggested that the incidence and prevalence of depression risk were related to socioeconomic level, and later studies revealed that conflicting findings; in our country, it was reported by Doğan that depression was found to be highest among those with low incomes (81). In the study, no difference was found between the depression status and socioeconomic level of women. It is thought that the

reason that the present study differs from the results in the literature is that it is only studied on women.

According to the results of the study, it was seen that there was a statistically significant relationship between BMI values and depression risk status of women ($p < 0.05$). Epidemiological studies have also reported that there is more glandity in patients with depression risk than in the general population (82). There are studies suggesting that the mechanism underlying the relationship between obesity and mood disorders results from changes in the hypothalamus-pituitary-adrenal axis (83, 84).

In the study, it was seen that there was a statistically significant difference between the depression risk score and the mean number of symptoms of food addiction according to the status of food addiction of women. It was seen that the depression risk score and the number of symptoms of food addiction were higher than the non-addictive women. In a study by Flint et al. (57), depression risk and food addiction were positively related, whereas the rate of food addiction was found to be 2 times higher in depressed women. In another study, the prevalence of major depressive disorder was 72.1% in food-dependent individuals, while it was found to be 40.6% in the non-food-dependent group (74).

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. Results

The results of this study, conducted to evaluate the relationship between the frequency of food addiction and the risk of depression risk in women, are given below.

1. 22.7% of the participants were food addicts.
2. There was no significant difference in terms of education, occupation and marital status between women with and without food addiction ($p>0.05$).
3. There was no difference between the mean ages of women with and without food addiction ($p>0.05$).
4. There was a statistically significant difference between the mean values of body weight, BMI values, waist circumference, hip circumference, body fat mass, body fat percentage, lean body mass, lean body percentage and muscle mass values according to food addiction status of women ($p<0.05$). Body weight, BMI values, waist circumference, hip circumference, body fat mass, body fat percentage, lean body mass, lean body percentage and muscle mass values of the food addicted women were found to be higher than those who were not addicted to eating.
5. It was seen that the mean number of symptoms of food addiction of the food addicts was higher than that of the non-food addicts.
6. There was a statistically significant difference between the mean depression risk score according to food addition of women ($p<0.05$). The average depression risk score of the women who are addicted to food is higher than the women who are not addicted to food.
7. In the present study, the prevalence of depression risk in women was 24%.
8. There was a statistically significant difference between the mean values of body weight, BMI, waist circumference, hip circumference, body fat percentage, lean body mass, lean body percentage and muscle mass values according to the depression risk status of women ($p<0.05$). Women with depression risk had higher mean body weight, BMI, waist circumference, hip circumference, body fat percentage, lean body mass, lean body percentage, and muscle mass than women without depression risk.

6.2. Suggestions

- Studies should be conducted to reduce the consumption of foods associated with food addiction. Regulations in school canteens, legal restrictions on the production and consumption of such foods, and substituting these foods for healthy and inexpensive alternative foods will be beneficial.
- Collaboration of psychiatrists, psychologists and dieticians in order to detect and prevent over-eating due to psychological reasons and raising awareness of health personnel on this issue will be an effective way to solve this problem.
- Turkey creation of a specific diet quality index more accurately reflect the dietary habits of the Turkish society in such activities and would be useful.
- It is recommended to evaluate the eating attitudes and behaviors in obese individuals and to make tests to determine the dependence on food and nutrition.

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8. APPENDICES

Appx 1. Ethical Approval



Sayı : 37068608-6100-15- 1671
Konu: Klinik Araştırmalar
Etik kurul Başvurusu hk.

21/05/2019

İlgili Makama (Derya Belli)

Yeditepe Üniversitesi Aile Hekimliği ve Halk Sağlığı Bölümü Dr. Öğr. Üyesi. Özlem Tanrıöver'in sorumlu araştırmacı olduğu "Kadınlarda Yeme Bağımlılığı Sıklığı Ve Depresyon Riski İle İlişkinin Değerlendirilmesi" isimli araştırma projesine ait Klinik Araştırmalar Etik Kurulu (KAEK) Başvuru Dosyası (1650) kayıt Numaralı KAEK Başvuru Dosyası), Yeditepe Üniversitesi Klinik Araştırmalar Etik Kurulu tarafından 15.05.2019 tarihli toplantıda incelenmiştir.

Kurul tarafından yapılan inceleme sonucu, yukarıdaki isimi belirtilen çalışmanın yapılmasının etik ve bilimsel açıdan uygun olduğuna karar verilmiştir (KAEK Karar No: 1022).

Prof. Dr. Turgay ÇELİK
Yeditepe Üniversitesi
Klinik Araştırmalar Etik Kurulu Başkanı

Appx 2. Research Permit

YEDİTEPE ÜNİVERSİTESİ KLİNİK ARAŞTIRMALAR ETİK KURUL BAŞKANLIĞI 'NA

Yeditepe Üniversitesi Sağlık Bilimleri Enstitüsü Beslenme ve Diyetetik Anabilim Dalı öğrencisi Derya Belli'nin 'Kadınlarda Yeme Bağımlılığı Sıklığı ve Depresyon ile İlişkisi' isimli araştırmayı yapmasında herhangi bir sakınca bulunmamaktadır.

Bilgilerinize arz/rica ederim.



Prof. Dr. Serdar Öztezcan
Yeditepe Üniversitesi
Beslenme ve Diyetetik Anabilim Dalı Başkanı

Appx 3. Participant Informed Consent Form

Değerli Katılımcı;

Bu çalışma bilimsel bir araştırma olup, Çekmeköy’de yer alan Bona Vita Beslenme Danışmanlığı ve Eğitim Merkezi’ne başvuru yapan kadınların yeme bağımlılığı sıklığı ve depresyon ile ilişkisini incelemek amacıyla yapılmaktadır. Bu amaçla çalışmaya katılan bireylerin; Kişisel Bilgi Formunu, Yale Yeme Bağımlılığı Ölçeğini ve Beck Depresyon Envanterini doldurmaları istenmektedir. Bu anketleri doldurmak yaklaşık 15 dakika sürecektir ve araştırmaya katılacak gönüllülerin sayısı 150 kişidir.

Sizin bu araştırmada yöneltilen sorulara samimi cevap vermeniz dışında herhangi bir sorumluluğunuz yoktur. Araştırma herhangi bir risk içermemektedir. Size araştırmada yer almanız nedeniyle bir ödeme yapılmayacak ya da ekstra bir ücret talep edilmeyecektir. Bu araştırmada yer almak tamamen sizin isteğinize bağlıdır. Sizinle ilgili tıbbi bilgiler gizli tutulacak, ancak çalışmanın kalitesini denetleyen görevliler, etik kurullar ya da resmi makamlarca gereği halinde incelenebilecektir. Araştırmada yer almayı reddedebilirsiniz ya da herhangi bir aşamada araştırmadan ayrılabilirsiniz; bu durum herhangi bir cezaya ya da zararınıza yol açmayacaktır. Reddettiğiniz takdirde size uygulanan tedavide herhangi bir değişiklik olmayacaktır. Araştırmacı, bilginiz dahilinde veya isteğiniz dışında, verilen anketlerin eksik doldurulması durumu gibi nedenlerle sizi araştırmadan çıkarabilir.

Araştırma hakkında ek bilgi almak için 0538 026 29 25 numaralı telefondan Diyetisyen Derya BELLİ ile görüşebilirsiniz. Elde edilen veriler, toplu olarak bilimsel amaçlı kullanılacak ve araştırma yayınlansa bile kimlik bilgileriniz gizli tutulacaktır.

Teşekkür ederim.

Tarih :/...../.....

Araştırmacının Adı Soyadı:

Araştırmacının İmzası:

GÖNÜLLÜ OLURU

Aşağıda imzası bulunan ben, Bilgilendirilmiş Gönüllü Olur Formundaki tüm açıklamaları okudum. Bana, konusu ve amacı belirtilen araştırma ile ilgili yazılı ve sözlü açıklama, aşağıda adı belirtilen kişi tarafından yapıldı. Araştırmaya gönüllü olarak katıldığımı, istediğim zaman gerekçeli veya gerekçesiz olarak araştırmadan ayrılabileceğimi ve kendi isteğime bakılmaksızın araştırmacı tarafından araştırma dışı bırakılabileceğimi biliyorum. Araştırma sonuçlarının eğitim ya da bilimsel amaçlarla kullanılması sırasında mahremiyetime saygı gösterileceğine inanıyorum. Söz konusu araştırmaya kendi rızamla, hiçbir baskı ve zorlama olmaksızın katılmayı kabul ediyorum.

Tarih :/...../.....

Gönüllü Adı Soyadı:

Gönüllü İmzası:

Appx 4. Survey Form

A. KİŞİSEL BİLGİ FORMU

AÇIKLAMA

Sevgili katılımcı, “Kişisel Bilgi Formu” sizlerin bazı özelliklerinizi içeren on üç sorudan oluşmaktadır. Bu formda size uygun olan kutucuklardan birini (X) şeklinde işaretlemeniz istenmektedir.

Ölçeklerin sonuçları yüksek lisans tez araştırması için kullanılacaktır. Lütfen yanıtlarınızı içtenlikle veriniz. Kimlik bilgilerinize ihtiyaç duyulmamaktadır. Lütfen tüm maddeleri yanıtlayınız.

Katılımınız için çok teşekkür ederim.

1. Yaşınız:

(Lütfen yıl olarak yazınız):..... (Doğum Yılı:.....)

2. Medeni durumunuz:

1.Evli () 2.Bekar ()

3. Eğitim durumunuz:

1.Okur-yazar değil () 2.Okur-yazar () 3.İlkokul mezunu ()
4.Ortaokul mezunu () 5.Lise mezunu () 6.Üniversite mezunu ()

4. Mesleğiniz:

1.Ev hanımı () 2.Memur () 3.Serbest meslek ()
4.Emekli () 5.İşçi () 6.Diğer:.....

5. Kendinizi sosyo-ekonomik olarak nerede görüyorsunuz?

1.Düşük () 2.Orta () 3.Yüksek ()

6. Geçmişte kilo probleminiz oldu mu?

1.Evet () 2.Hayır ()

7. Daha önce diyet yaptınız mı?

1.Evet ()

2.Hayır ()

8. Şu anda diyet yapıyor musunuz?

1.Evet ()

2.Hayır ()

9. Şu anda diyet yapıyorsanız türü nedir?

1.Zayıflama diyeti () 2.Kilo alma diyeti () 3.Kilo koruma diyeti ()

4.Diğer:.....

10. Doktor teşhisiyle konmuş herhangi kronik bir hastalığınız var mı?

1.Evet (.....)

2.Hayır

B. ANTROPOMETRİK ÖLÇÜMLER

Vücut ağırlığıkg	Vücut yağ kütlesikg
Boy uzunluğucm	Vücut yağ yüzdesi %....
BKİkg/m ²	Yağsız vücut kütlesikg
Bel çevresicm	Yağsız vücut yüzdesi %.....
Kalça çevresicm	Kas kütlesikg
Bel/kalça	
Bel/boy	

B. YALE YEME BAĞIMLILIĞI ÖLÇEĞİ

AÇIKLAMA

Sevgili katılımcı, bu ankette yer alan sorular, geçen bir yıla dair yeme alışkanlıklarınızı öğrenmeyi amaçlamaktadır. İnsanlar bazen belirli yiyeceklerin tüketimini kontrol etmekte zorlanırlar:

- Dondurma, çikolata, kurabiye, pasta, şeker gibi tatlılar
- Beyaz ekmek, makarna, pirinç gibi nişastalı gıdalar
- Cips, kraker gibi tuzlu atıştırmalar
- Biftek, hamburger, pizza, patates kızartması gibi yağlı yiyecekler
- Kolalı ve şekerli içecekler

Aşağıdaki sorularda “BELİRLİ YİYECEKLER” ifadesini gördüğünüzde listedeki yiyecekler ya da benzerlerini, ya da geçen bir yıl içinde sorun yaşadığınız bir yiyecek türünü düşünün.

SON 12 AYDIR:	Hiç	Ayda bir kez	Ayda 2-4 kez	Haftada a 2 kez	Haftada 4'ten fazla ya da her gün
1. Belirli yiyecekleri yemeye başladıktan sonra planladığımdan daha fazla yediğimi fark ettim.	0	1	2	3	4
2. Açlığım geçmesine rağmen kendimi belirli yiyecekleri tüketmeye devam ederken buluyorum.	0	1	2	3	4
3. Fiziksel olarak rahatsız hissedene kadar yiyorum.	0	1	2	3	4
4. Belirli yiyecekleri yemeyi bırakmak ya da tüketimini azaltmak beni endişelendiriyor.	0	1	2	3	4
5. Zamanımın büyük kısmını çok fazla yediğimden dolayı kendimi miskin ve yorgun hissederek geçiriyorum.	0	1	2	3	4
6. Kendimi belirli yiyecekleri gün boyunca sürekli yerken buluyorum.	0	1	2	3	4
7. Belirli yiyecekler elimin altında olmadığımda, dışarı çıkıp temin etmeye çalışıyorum. Örneğin, evde başka seçeneklerim olsa bile markete gidip satın alırım.	0	1	2	3	4

8. Öyle anlar oluyor ki, çok sık ve çok fazla yemek yediğim için çalışmaya, ailem ve arkadaşarımla vakit geçirmeye, benim için önemli ya da eğlenceli faaliyetleri yapmaya vakit ayıramıyorum.	0	1	2	3	4
9. Öyle anlar oluyor ki, çok sık ve çok fazla yemek yediğim için hissettiğim olumsuz duygularla baş etmeye çalışmaktan çalışmaya, ailem ve arkadaşarımla vakit geçirmeye, benim için önemli ya da eğlenceli faaliyetleri yapmaya vakit ayıramıyorum.	0	1	2	3	4
10. Öyle anlar oluyor ki, çok fazla yemekten korktuğum için belirli yiyeceklerin bulunabileceği profesyonel ve sosyal ortamlardan kaçınıyorum.	0	1	2	3	4
11. Öyle anlar oluyor ki, belirli yiyecekleri yiyemeyeceğim bazı profesyonel ve sosyal ortamlardan kaçınıyorum.	0	1	2	3	4
12. Belirli yiyecekleri azalttığımda ya da bıraktığımda endişe, kaygı ya da fiziksel yoksunluk belirtileri yaşıyorum. (lütfen kahve, kola, çay, enerji içeceği gibi kafeinli içecekleri azaltmanın yarattığı belirtileri dahil etmeyin)	0	1	2	3	4
13. Gelişen endişe, kaygı ya da fiziksel yoksunluk belirtilerini önlemek için belirli yiyecekleri tüketiyorum. (lütfen kahve, kola, çay, enerji içeceği gibi kafeinli içeceklerin tüketimini dahil etmeyin)	0	1	2	3	4
14. Belirli yiyecekleri azalttığımda ya da bıraktığımda onları tüketme isteğimin arttığını fark ediyorum.	0	1	2	3	4
15. Yemeklerle ve yemek yemekle ilgili davranışlarım beni önemli ölçüde rahatsız ediyor.	0	1	2	3	4
16. Yemekler ve yemek yemek yüzünden verimli iş yapma konusunda önemli sıkıntılar yaşıyorum. (günlük hayat, iş/okul, sosyal faaliyetler, aile faaliyetleri, sağlık sorunları)	0	1	2	3	4

	EVET	HAYIR
17. Yemek tüketimin yüzünden depresyon, kaygı, kendimden nefret etme, suçluluk gibi önemli psikolojik sorunlar yaşıyorum.	0	1
18. Yemek tüketimim önemli fiziksel sorunlara yol açıyor ya da var olan sorunları kötüleştiriyor.	0	1
19. Duygusal ve/veya fiziksel sorunlar yaşamama rağmen aynı tipte ya da aynı miktarda yemek tüketmeye devam ediyorum.	0	1
20. Zaman içinde, daha az olumsuz duygu ya da daha çok haz gibi istediğim duyguları elde etmek için daha fazla yemek yemeye ihtiyacım olduğunu fark ediyorum.	0	1
21. Aynı miktarda yemeğin, eskisi gibi olumsuz duyguları azaltmadığımı ya da hazı arttırmadığımı fark ettim.	0	1
22. Belirli yiyecekleri azaltmak ya da yemeyi bırakmak istiyorum.	0	1
23. Belirli yiyecekleri azaltmaya ya da yemeyi bırakmaya çalıştım.	0	1
24. Bu yiyecekleri azaltmayı ya da yemeyi bırakmayı başardım.	0	1

25. Geçen bir yıl içerisinde belirli yiyecekleri azaltmayı ya da bırakmayı kaç kere denediniz?	1 kere	2 kere	3 kere	4 kere	5 ya da daha fazla
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26. Aşırı yeme isteği uyandırdığı için ve/veya aşırı yemekten dolayı sorun yaşadığınız her yiyeceği işaretleyiniz.						
Dondurma	Çikolata/Gofret	Elma	Donat/Tatlı Çörek	Karnabahar	Kurabiye/Bisküvi	Pasta/Kek
Şeker/Şekerleme	Ekmek	Poğaç/Açma	Marul	Makarna	Çilek/Kiraz/Üzüm	Pilav
Kraker	Cips	Simit	Patates kızartması	Havuç	Kırmızı et	Muz
Pastırma/Sucuk/Salam	Hamburger	Tost/Peynirli sandviç	Pizza/Lahmacun/Döner	Kola/Gazoz	Peynir (Beyaz peynir, kaşar vs.)	Yukardakilerin hiçbiri

C. BECK DEPRESYON ENVANTERİ

Aşağıda, kişilerin ruh durumlarını ifade ederken kullandıkları bazı cümleler verilmiştir. Her madde bir çeşit ruh durumunu anlatmaktadır. Her maddede o ruh durumunun derecesini belirleyen 4 seçenek vardır. Lütfen bu seçenekleri dikkatle okuyunuz. Son bir hafta içindeki (şu an dahil) kendi ruh durumunuzu göz önünde bulundurarak, size en uygun olan ifadeyi bulunuz. Daha sonra, o maddenin yanındaki harfin üzerine (X) işareti koyunuz.

- 1) a. Kendimi üzgün hissetmiyorum
b. Kendimi üzgün hissediyorum
c. Her zaman için üzgünüm ve kendimi bu duygudan kurtaramıyorum
d. Öylesine üzgün ve mutsuzum ki dayanamıyorum
- 2) a. Gelecekte umutsuz değilim
b. Gelecek konusunda umutsuzum
c. Gelecekte beklediğim hiçbir şey yok
d. Benim için bir gelecek olmadığı gibi bu durum değişmeyecek
- 3) a. Kendimi başarısız görmüyorum
b. Herkesten daha fazla başarısızlıklarım oldu sayılır
c. Geriye dönüp baktığımda, pek çok başarısızlığımın olduğunu görüyorum
d. Kendimi bir insan olarak tümüyle başarısız görüyorum
- 4) a. Her şeyden eskisi kadar doyum (zevk) alabiliyorum
b. Her şeyden eskisi kadar doyum alamıyorum
c. Artık hiçbir şeyden gerçek bir doyum alamıyorum
d. Bana doyum veren hiçbir şey yok. Her şey çok sıkıcı
- 5) a. Kendimi suçlu hissetmiyorum
b. Arada bir kendimi suçlu hissettiğim oluyor
c. Kendimi çoğunlukla suçlu hissediyorum
d. Kendimi her an için suçlu hissediyorum
- 6) a. Cezalandırılıyormuşum gibi duygular içinde değilim
b. Sanki bazı şeyler için cezalandırılabilmişim gibi duygular içindeyim
c. Cezalandırılacakmışım gibi duygular yaşıyorum
d. Bazı şeyler için cezalandırılıyorum

- 7) a. Kendimi hayal kırıklığına uğratmadım
b. Kendimi hayal kırıklığına uğrattım
c. Kendimden hiç hoşlanmıyorum
d. Kendimden nefret ediyorum
- 8) a. Kendimi diğer insanlardan daha kötü durumda görmüyorum
b. Kendimi zayıflıklarım ve hatalarım için eleştiriyorum
c. Kendimi hatalarım için her zaman suçluyorum
d. Her kötü olayda kendimi suçluyorum
- 9) a. Kendimi öldürmek gibi düşüncelerim yok
b. Bazen kendimi öldürmeyi düşünüyorum ama böyle bir şey yapamam
c. Kendimi öldürebilmeyi çok isterdim
d. Eğer bir fırsatını bulursam kendimi öldürürüm
- 10) a. Herkesten daha fazla ağladığımı sanmıyorum
b. Eskisine göre şimdilerde daha çok ağlıyorum
c. Şimdilerde her an ağlıyorum
d. Eskiden ağlayabilirdim. Şimdilerde istesem de ağlayamıyorum
- 11) a. Eskisine göre daha sinirli veya tedirgin sayılmam
b. Her zamankinden biraz daha fazla tedirginim
c. Çoğu zaman sinirli ve tedirginim
d. Şimdilerde her an için tedirgin ve sinirliyim
- 12) a. Diğer insanlara karşı ilgimi kaybetmedim
b. Eskisine göre insanlarla daha az ilgiliyim
c. Diğer insanlara karşı ilgimin çoğunu kaybettim
d. Diğer insanlara karşı hiç ilgim kalmadı
- 13) a. Eskisi gibi rahat ve kolay kararlar verebiliyorum
b. Eskisine kıyasla şimdilerde karar vermeyi daha çok erteliyorum
c. Eskisine göre karar vermekte oldukça güçlük çekiyorum
d. Artık hiç karar veremiyorum

- 14) a. Eskisinden daha kötü bir dış görünüşüm olduğunu sanmıyorum
b. Sanki yaşlanmış ve çekiciliğimi kaybetmişim gibi düşünüyorum ve üzülüyorum
c. Dış görünüşümde artık değiştirilmesi mümkün olmayan ve beni çirkinleştiren değişiklikler olduğunu hissediyorum
d. Çok çirkin olduğumu düşünüyorum
- 15) a. Eskisi kadar iyi çalışabiliyorum
b. Bir işe başlayabilmek için eskisine göre daha çok çaba harcıyorum
c. Ne olursa olsun, yapabilmek için kendimi çok zorluyorum
d. Artık hiç çalışmıyorum
- 16) a. Eskisi kadar kolay ve rahat uyuyabiliyorum
b. Şimdilerde eskisi kadar kolay ve rahat uyuyamıyorum
c. Eskisine göre bir veya iki saat erken uyanıyor, tekrar uyumakta güçlük çekiyorum
d. Eskisine göre çok erken uyanıyor ve tekrar uyuyamıyorum
- 17) a. Eskisine göre daha çabuk yorulduğumu sanmıyorum
b. Eskisinden daha çabuk ve kolay yoruluyorum
c. Şimdilerde neredeyse her şeyden, kolayca ve çabuk yoruluyorum
d. Artık hiçbir şey yapamayacak kadar yorgunum
- 18) a. İştahım eskisinden pek farklı değil
b. İştahım eskisi kadar iyi değil
c. Şimdilerde iştahım epey kötü
d. Artık hiç iştahım yok
- 19) a. Son zamanlarda pek fazla kilo kaybettiğimi/aldığımı sanmıyorum
b. Son zamanlarda istemediğim halde iki buçuk kilodan fazla kaybettim/aldım
c. Son zamanlarda beş kilodan fazla kaybettim/aldım
d. Son zamanlarda yedi buçuk kilodan fazla kaybettim/aldım
- 20) a. Sağlığım beni pek endişelendirmiyor
b. Son zamanlarda ağrı, sızı, mide bozukluğu, kabızlık gibi sıkıntılarım var
c. Ağrı sızı gibi bu sıkıntılarım beni çok endişelendiriyor
d. Bu tür sıkıntılar beni öylesine endişelendiriyor ki başka bir şey düşünemiyorum

- 21) a. Son zamanlarda cinsel yařantımda dikkatimi eken bir Őey yok
b. Eskisine gre cinsel konularla daha az ilgileniyorum
c. Őimdilerde cinsellikle pek ilgili deęilim
d. Artık cinsellikle hi bir ilgim kalmadı

*Hisli, N. (1989). Beck Depresyon Envanterinin niversite đrencileri İin Geerlięi
Gvenirlięi, Psikoloji Dergisi, 23, 3-13.*

*Hisli, N. (1989). Beck Depresyon Envanterinin Geerlięi zerine Bir alıřma, Psikoloji
Dergisi, 22, 118-126.*

Appx 5. Survey Permissons

Yale Yeme Bağımlılığı Ölçeği Kullanım İzni Gelen Kutusu x

 **Diyetisyen Derya Belli** <diyetisyenderyabelli@gmail.com> 19 Mart Sal 23:22 (2 saat önce) ☆ ↶ ⋮

Alıcı: Fezza ▾

Merhaba Fezza Hanım;

Ben, Yeditepe Üniversitesi Beslenme ve Diyetetik Yüksek Lisans öğrencilerinden Derya Belli.
"Kadınlarda Yeme Bağımlılığı Sıklığı ve Depresyon ile İlişkisi" konulu tez çalışmasını yürütmekteyim. Bu çalışmada sizin geçerlilik ve güvenilirliğini yaptığınız Yale Yeme Bağımlılığı Ölçeğini kullanmak üzere izninizi istiyorum.

Gerri dönüşünüz için şimdiden teşekkür ediyorum.
Saygılarımla;
Derya BELLİ

 **Fezza Bayraktar** 19 Mart Sal 23:44 (1 saat önce) ☆ ↶ ⋮

Alıcı: ben ▾

Merhaba,

Kusura bakmayın, yoğunluğumdan dolayı gözümde kaçmış. Tabii ki kullanabilirsiniz.
Eğer ölçek ve değerlendirme tablosuna ihtiyacınız varsa gönderebilirim.

Sevgiler,
F.B.



Beck Depresyon Envanteri



Diyetisyen Derya Belli <diyetisyenderyabelli@gmail.com>

Alıcı: nesrinhislisahin

18 Mart Pzt 22:27 (2 gün önce) ☆ ↵

Merhaba Nesrin Hanım,

Ben, Yeditepe Üniversitesi Beslenme ve Diyetetik Yüksek Lisans öğrencilerinden Derya Belli. "Kadınlarda Yeme Bağımlılığı Sıklığı ve Depresyon ile ilişkisi" konulu tez çalışmamı yürütmekteyim. Bu çalışmada sizin geçerlilik ve güvenilirliğini yaptığınız Beck Depresyon Envanterini kullanmak üzere izninizi istiyorum.

Geri dönüşünüz için şimdiden teşekkür ediyorum.

Saygılarımla;

Derya BELLİ

↵ Yanıtla

➡ Yönlendir

Beck Depresyon Envanteri Gelen Kutusu x



Gulsen T. <gulsenturk@yahoo.com>

Alıcı: ben

19 Mart Sal 18:49 (6 saat önce) ☆ ↵ ⋮

Sayın Belli,

Beck Depresyon Envanteri'ni araştırma amaçlı olarak kullanmanızda benim açımdan bir sakınca bulunmamaktadır. Ancak sizden önemli ricam, Ölçeğin başka kopyalarını değil; size gönderdiğim kopyasını ve ölçek formunun son sayfasındaki kaynakları da kullanmanızdır. Kaynakları ekte dijital ortamda gönderiyorum. Ayrıca, Envanterin orijinalinin Aaron Beck tarafından geliştirilmiş olduğu bilgisiyle gerekli referanslarının da çalışmanızda verilmesi gerekecektir. Çalışmanızda başarılar dilerim.

Prof.Dr.Nesrin Hisli Şahin adına

Gülşen Hisli

3 Ek



9. CURRICULUM VITAE

Personal Information

Name	Derya	Surname	Belli
Place of Birth	Kahramanmaraş	Date of Birth	27/03/1993
Nationality	Turkish	Identity Number	22559411526
E-mail	diyetisyenderyabelli@gmail.com	Telephone	05380262925

Education Background

Degree	School/Department	Graduation Year
Master	Yeditepe University	2019
Bachelor's	Yeditepe University	2017
Highschool	Pazarcık Anatolian High School	2011

Foreign Languages	Level
English	Advanced

Work Experience

Position	Institution	Period
Dietitian	Diyetisyen Derya Belli Sağlıklı Beslenme ve Diyet Danışmanlığı Merkezi	2019 - continue
Lecturer	Okan University-Nutrition and Dietetic-Sports Nutrition	2019 - continue
Dietitian	Bona Vita Beslenme Danışmanlığı ve Eğitim Merkezi	2018 - 2019

Computer Programs

Program	User Level
Microsoft Office	Advanced
SPSS	Moderate