TC. YEDİTEPE UNIVERSITY

INSTITUTE OF HEALTH SCIENCES

DEPARTMENT OF NUTRITION AND DIETETICS

The Effect of Fear of COVID-19 on Food Consumption: A Cross-sectional Study

MASTER THESIS

İPEK SAROĞLU

İSTANBUL-2022

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This thesis has been deemed by the jury in accordance with the relevant articles of Yeditepe University Graduate Education and Examinations Regulation and has been approved by Administrative Board of Institute with decision dated ..... and numbered .....

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Director of Institute of Health Sciences

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.

12/04/2022

İpek Saroğlu

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LIST OF ABBREVIATIONS

BMI	Body Mass Index
BWL	Behavioral Weight Loss Treatment
CBT	Cognıtive Behavioral Therapy
DASH	Dietary Approaches to Stop Hypertension
DSM-V	The Diagnostic and Statistical Manual of Mental Disorders
EAT-40	Eating Attitudes Test
FCV-19	The Fear of COVID-19 Scale
HEI-2015	Healthy Eating Index
MIND	Mediterranean-DASH Intervention for Neurodegenerative Delay
NCD	Non-communicable Diseases
NICE	National Institute for Health and Care Excellence
SSRI	Selective Serotonin Reuptake Inhibitors

ABSTRACT

Saroğlu,İ (2022) The Effect of Fear of COVID-19 on Food Consumption: A Cross-sectional Study Yeditepe University, Institute of Health Science, Department of Nutrition and Dietetics, Master's Thesis, Istanbul.

During the COVID-19 pandemic, the quarantine process affects the eating habits of individuals. The aim of this study is to determine the effect of the COVID-19 fear level of individuals on the change in their eating habits during the pandemic and how much this change is affected by the tendency of eating behavior disorder. For this purpose, Eating Attitudes Test (EAT-40) and The Fear of COVID-19 Scale (FCV-19) and data collection forms determining demographic data, lifestyle and nutritional habits were applied to 397 individuals visited who came to Sevinç Pharmacy between 01.06.2021-30.09.2021. 44.3% of the participants mentioned that gained weight during this period, 11.6% lost weight, 1.3% did not change their weight and 11.6% did not know the weight change. There was no significant effect of fear of covid-19 on the eating behaviors of individuals who are prone to eating disorders ($p>0.05$), except for whole grain consumption ($p<0.05$). Among these individuals, it was observed that the fear of covid-19 was higher in those whose whole grain consumption decreased ($p<0.05$) It has been observed that individuals who had higher the fear of COVID-19 had a significant effect on eating behavior in individuals with healthy eating behavior. It has been observed that the fear of COVID-19 is high in individuals with increased water consumption, whole grain consumption, packaged food consumption and sugary beverage consumption. ($p<0.05$). At the same time, it was observed that the consumption of vegetables, the frequency of snacks and number of meals decreased in individuals with higher fear of COVID-19 ($p<0.05$). In order to examine the effect of fear of COVID-19 on eating habits, more studies are needed.

Keywords:Fear of COVID-19,Eating habits,Eating disorders

ÖZET

Saroğlu,İ (2022) COVID-19 Korkusunun Beslenme Alışkanlıklarına Etkisi:Kesitsel Bir Çalışma Yeditepe Üniversitesi Sağlık Bilimleri Enstitüsü, Beslenme ve Diyetetik Anabilim Dalı, Yüksek Lisans Tezi, İstanbul.

COVID-19 pandemisi boyunca karantina sürecinin bireylerin beslenme alışkanlıklarını etkilediği çalışmalarda gösterilmiştir.Bu çalışmanın amacı pandemi boyunca bireylerin COVID-19 korku düzeyinin beslenme alışkanlıklarındaki değişime etkisini ve bu değişimin yeme davranış bozukluğu eğiliminden ne kadar etkilendiğini saptamaktır. Bu amaçla 01.06.2021-30.09.2021 tarihleri arasında Sevinç Eczanesi'ne gelen 397 gönüllü kişiye, EAT-40,FCV-19 ölçekleri ve demografik veriler ile yaşam tarzı,beslenme alışkanlıklarını saptayan veri toplama formları uygulanmıştır. Katılımcıların %44.3 ü bu sürede kilo aldığını, %11.6 sı kilo verdiğini, %1.3 ünün kilosunun değişmediğini ve %11.6 sı kilo değişimini bilmediğini belirtmiştir. COVID-19 korkusunun yeme bozukluğuna yatkın bireylerin yeme davranışları üzerinde tam tahıl tüketimi dışında anlamlı bir etkisi bulunmamıştır($p<0.05$). Bu bireylerden tam tahıl tüketimi azalanların COVID-19 korkusunun yüksek olduğu görülmüştür ($p<0.05$).Sağlıklı yeme davranışına sahip bireylerde COVID-19 korkusunun beslenme alışkanlıkları üzerinde anlamlı bir etkisi olduğu görülmüştür. Su tüketimi,tam tahıl tüketimi,paketli gıda tüketimi ve şekerli içecek tüketimi artan bireylerde covıd-19 korkusunun da yüksek olduğu görülmüştür. ($p<0.05$) . Aynı zamanda covıd-19 korkusu yüksek olan bireylerde, sebze tüketimi,ara öğün sıklığı ve toplam öğün sayısının da azaldığı görülmüştür ($p<0.05$).COVID-19 korkusunun yeme alışkanlıkları üzerindeki etkisini inceleyebilmek için daha fazla çalışmaya ihtiyaç vardır.

Anahtar kelimeler:COVID-19 korkusu,Beslenme alışkanlıkları,Yeme bozuklukları

1.INTRODUCTION AND PURPOSE

The COVID-19 disease known as acute respiratory disease,emerged in in Wuhan city in China in December 2019 [1]Over 80.000 cases of COVID-19 were detected and over 3200 death reported in China by March 2020 [2]. On January 23 all entrances and exits to the city were closed to prevent the spread of the disease [3].In March the COVID-19 outbreak was declared as a pandemic by the World Health Organization[4].

In this process, different quarantine measures were applied in different countries, but the quarantine process affected lifestyle and eating habits [5]. At the same time, the incidence of psychiatric disorders such as anxiety and depression increased [6,7]. Studies say that stress and anxiety also affect eating habits. At the same time, this process has increased the incidence of eating disorders [8] The incidence of eating disorders in 2020 is 15.3% higher than in other years [9].

The aim of this study is to determine the effect of the COVID-19 fear level of individuals on the change in their eating habits and how much this change is effected by the tendency of eating behavior disorder during the pandemic.

2.LITERATURE REVIEW

2.1 COVID-19 Onset

COVID-19 emerged in Wuhan, China in December 2019, and in March, the World Health Organization declared that COVID-19 was a pandemic [1,4]

Everyone has been affected by the pandemic in different ways.It has been shown in study that COVID-19 mortality and symptom rates are higher in individuals with comorbidities such as hypertension, cancer, and heart diseases [10].

The only result of the pandemic was not the loss of life but also economic,social and psychological changes in society [11], [12]

2.2 COVID-19 Period and Lifestyle

In order to control the pandemic, closure was implemented in more than 100 countries in this process. The closure process differed between countries, in some countries it was forbidden to leave the house, while in some countries the rule of social distance was applied . The word quarantine means "Quaranta giorni" in Italian, meaning 40 days, and began to be used during the plague epidemic in the middle ages [13]. While the modern quarantine has controlled the spread of the pandemic, it has affected physical activity and access to fresh food therefore; lifestyle and eating habits [14,5]).

During this period, the change in lifestyle made it difficult to maintain healthy eating habits. Since people are afraid to go to the markets, consumption of fresh fruits and vegetables has decreased, and there has been a tendency to consume processed and ready-made foods [15]With the increase in unemployment and decreased income, the money spent on food decreased, the consumption of cheaper and unhealthy foods increased [16]. Studies generally show that in this process, physical activity decreases, calorie intake increases, and the tendency to carbohydrate-containing foods that support serotonin release increases [17–19].

2.2.1 COVID-19 Perıod and Eating Habits

There are studies conducted in different countries on how eating habits and lifestyle change in this process. However, studies conducted in different countries in this process yielded different results [20,21]

It was seen in a systematic review that 23 studies examining the change in eating habits during the Covid-19 period were included; The frequency of snacking increased and processed and sugary foods were preferred rather than fresh fruits and vegetables. It has been showed that in a study ;alcohol consumption increased. As a result, compliance with a healthy diet decreased [18]

Especially in the first period of the pandemic, the increase in the time spent at home due to quarantine so the increase in the quality of nutrition can also be considered [22–24]. However, it is not possible to say that the increase in the time spent at home directly increases the quality of nutrition [25]

In the survey study, in which 1047 people from 3 continents participated, it was seen that the number of main meals and snacks increased, unhealthy food consumption increased, but excessive alcohol consumption decreased during the quarantine period [16].

In a study conducted in the United Arab Emirates with 1012 participants, 31% of the participants reported that they experienced weight gain. In addition, it has been observed that nutritional habits have moved away from the Mediterranean type diet and have become more unhealthy. Moreover, 60.8% of the participants also stated that they had sleep disorders during the pandemic period [26]

In a study conducted in Italy during the first period of quarantine, it was seen that 58% of 1298 participants changed their meal times and contents. It was observed that people with evening chronotype and poor sleep quality were more likely to change their eating habits [27]

In a study involving 4473 participants in Jordan, a significant increase in body weight was observed, and this increase was significantly higher in obese (41.1%) and overweight (36.4%) individuals than in normal (28.5%) and under-weight (12.9%) individuals. [21]

Interestingly, in the data obtained from the NutriQuebec study conducted in Canada; During the quarantine period, participants' Healthy Eating Index (HEI-2015) scores were lower but significantly increased [28]. This situation was associated with a decrease in the frequency of eating out [20]

In a study conducted in Italy in which 2678 participants participated, it was observed that the consumption of fruits, vegetables, legumes, nuts and fish increased during the quarantine period. However, undesirable changes were also seen, excessive increase in consumption of sweets and pastries and decrease in physical activity [29]

In this process, quarantine measures are different in each country and each country has been affected differently by the pandemic, the differences in the studies may be caused by this.

2.2.2 COVID-19 Period an Physical Activity

Factors such as quarantine, distance education, closure of sports fields, bans from leaving the house, of course, also affected physical activity levels [5,16,30]

In a meta-analysis that included 66 studies; In the majority of the population, physical activity decreased and sedentary behavior increased during the quarantine period. [19] Interestingly, patients with eating disorders showed an increase in their physical activity.

In a survey study answered by 1047 participants from 3 continents; During the quarantine period, it was observed that the daily sitting time increased from 5 hours to 8 hours and the intensity of physical activity decreased [5].

In a study conducted in France, 35% of the participants had weight gain, while the physical activity of 53% of them decreased. Again, opposite results were observed in the same study, 23% of the participants lost weight, 40% increased their cooking at home, and 19% increased physical activity. These differences were thought to be due to socioeconomic reasons. Low-income individuals experienced weight gain and had difficulty accessing fresh food, the opposite in the high-income group [16].

2.3 COVID-19 Period and Psychology

It is possible to say that mental disorders have increased in the world after the COVID-19 pandemic. In these a meta-analysises, it was found that depression, anxiety, insomnia and stress levels increased [6,7]. It has been observed that chronic patients, patients with COVID-19 and those in quarantine are at higher risk for depression and anxiety [6]While the universal rate of anxiety was estimated to be 7%, it was seen in this meta-analysis that this rate was more than three times during the COVID-19 period [31].

Although the decrease in restrictions seems to decrease mental health problems, this level has not decreased before the pandemic [32]

2.4 COVID-19 Period and Eating Disorders

According to electronic health records, which included 5.2 million people under the age of 30, the incidence of eating disorders was 15.3% higher in 2020 compared to pervious years.[9] At the same time, it was observed that this increase was only in females, generally higher in young people and anorexia nervosa [9]

In the studies, it was thought that factors such as increased stress, anxiety and isolation during the pandemic period may increase the symptoms of eating disorders [33–35] In one study, 3 potential factors were mentioned; Firstly, disruption of daily routine changes physical activity, sleep and eating habits and this situation is suggested increase weight gain anxiety. Second, news in the media may increase anxiety levels, increasing the risk of eating disorders. Third, the risk of transmission may increase health concerns and lead to more restricted diets that will increase immunity [36] .In addition, deprivation of social support and restriction of access to treatment are also effective in increasing the symptoms and risk of eating disorders. [36]

Studies have been conducted in eating disorder patients and the general population during the pandemic .[37–40]

In a study conducted in Australia, 180 out of 5469 participants reported an existing or newly developing eating disorder. In the eating disorder group, an increase in restriction, binge eating, purging and exercise behaviors was observed.[41]In the general population, there was an increase in restriction and binge eating behaviors, while a decrease in exercise was observed in contrast to the other group. [41]

In a study, behavioral changes and eating attitudes in 1004 female university students in Saudi Arabia during the covid-19 pandemic period were examined. In this process, it was found that there is a significant relationship between fast-food consumption and exercise frequency and the risk of developing an eating disorder. [38]

An online survey study conducted in the United States and the Netherlands found that patients with anorexia nervosa had an increased fear of finding food suitable for their diet and restrictive behaviors. [39]In addition, individuals with bulumia nervosa and binge eating reported that their binge attacks and urges increased. [39]

In a study, the effects of psychological factors in the COVID-19 process on the symptoms and access to health services of bulumia nervosa patients were examined.49% of the participants stated that their eating disorder symptoms worsened and 62% of them stated that their living standards decreased. [40]Binge eating behavior increased in 47% of the participants and self-induced vomiting behavior in 36%.[40]While there was a 56% decrease in face-to-face therapy sessions, the videoconferencing method was used by only 22% of the population. [40]

In a study, it was examined how the general and eating disorder-specific psychopathological symptoms of individuals with eating disorders were affected before, during and after quarantine [42] Individuals with anorexia nervosa, binge eating disorder, bulimia nervosa, and other unspecified feeding and eating disorder participated in the study.The severity of general and eating disorder-specific symptoms increased during the quarantine, while the increase in general symptoms continued during the disclosure period, but excluding suicidal ideation. [42]

2.5 Feeding and Eating Disorders

2.5.1 Feeding and Eating Disorders Defined in The Diagnostic and Statistical Manual of Mental Disorders (DSM-V)

The Diagnostic and Statistical Manual of Mental Disorders V (DSM V) has gathered eating disorders under the name of 'Feeding and Eating Disorders'. Diagnostic criteria for Nutrition and Eating Disorders have been defined. Disorders named according to the criteria as feeding and eating disorders: pica, withdrawal (rumination) disorder, avoidant/restricted food intake disorder, anorexia nervosa, bulimia nervosa, binge eating

disorder and other defined feeding and eating disorders. Feeding and eating disorders that do not fit the diagnosis are called other unspecified nutrition and eating disorders in the DSM-V handbook. [43] In addition, although not included in the DSM-V book, feedıng and eating disorders defined in studies are also presented under a separate title.

2.5.2 Pica

Pica is a psychiatric disease characterized by the behavior and habit of eating non-nutritive substances such as stone, brick, chalk, soil, soap and paper.[44] Although different causes are mentioned in the etiology of pica, studies could not establish a clear cause-effect relationship. [45]Nevertheless, studies have found a link between pica and factors such as stress, child abuse, maternal deprivation, and iron deficiency. [46,47]Although pica is generally common in individuals with a developmental and psychiatric disorder and iron deficiency anemia and pregnants it has also been seen in male and female of different ages and ethnicities, but is more common in lower socioeconomic status. [48–50] Studies have shown that pica is seen together with psychiatric disorders, especially schizophrenia. [51]However, studies have stated that pica is more common in African Americans. [52,53]Pica can have many complications, including heavy metal poisoning, airway obstruction, intestinal perforation and obstruction, followed by peritonitis and sepsis, which can be fatal. [54]

Diagnostic criteria for pica published in the DSM V [43] handbook are as follows:

A. Consistently eating non-nutritive, non-nutritive substances for at least one month.

B. Attitudes to eating non-nutritive non-nutrients should not be related to the individual's developmental level.

C. This eating behavior should not be a culturally based or socially acceptable practice.

D. If this eating behavior occurs in the context of another mental disorder (eg, intellectual developmental disorder, autism spectrum disorder, schizophrenia), it should not only be considered a feeding and eating disorder, but should also be included in a clinical assessment.

2.5.3 Withdrawal (Rumination) Disorder

Rumination is an eating disorder characterized by regurgitation and chewing, swallowing, or expulsion of the previously eaten food. [55]

The diagnostic criteria published in the DSM V [43] handbook for retrieval (rumination) disorder are:

A. Frequent withdrawal of food for at least one month.

B. Frequent withdrawal should not be due to concomitant gastrointestinal disease or other medical condition (eg, gastroesophageal reflux, pyloric stenosis).

A. This disorder should not occur only in the presence of anorexia nervosa, bulimia nervosa, or binge eating disorder.

D. If these symptoms occur in the context of another mental disorder (eg, intellectual developmental disorder or another neurodevelopmental disorder), they should not only be considered a feeding and eating disorder - but should also be considered for clinical evaluation.

2.5.4 Avoidant/Restricted Food Intake Disorder

Avoidant restrictive food intake was included as a diagnosis under feeding and eating disorders in DSM-V in 2013. [43]The difference between avoidant and restrictive eating behavior and other diagnoses such as Anorexia nervosa is that; Eating restriction does not occur due to the fear of gaining weight or the desire to be thinner. [43]

The diagnostic criteria for avoidant/restricted food intake disorder published in the DSM V [43]handbook are as follows:

A. An eating or nutritional disorder (e.g., overt lack of interest in eating or food; avoidance of sensory properties of food; reluctance to eat) associated with one (or more) of the following: worry about its odious consequences). Distinguishing criteria:

1. Significant loss of body weight (or failure to achieve expected body weight gain or growth arrest in children).

2. A marked nutritional deficiency.

3. Adherence to enteral (tube-assisted) feeding or oral nutritional-supplements.

4. It is in the form of a significant decrease in mental-social functionality.

B. The disorder should not include a condition of lack of food available or a culturally-sanctioned diet.

C. This eating disorder should not occur only in the presence of anorexia nervosa or bulimia nervosa, and there should be no evidence of impairment in how the individual perceives body weight or shape.

D. This eating disorder should not be attributed to a concurrent health condition or better explained by another mental disorder. If it occurs in the context of another condition or disorder, the condition or disorder should also receive clinical evaluation.

2.5.5 Anorexia Nervosa

The medical diagnosis of anorexia was made by Dr.Gull and Dr.Lasegue at the end of the 1800s .[56,57]

Anorexia nervosa is an eating disorder characterized by very low body weight and restricted energy intake. Patients have an extreme fear of gaining weight, and their body image is so distorted that they cannot notice their excessively low weight. [58,59] Anorexia nervosa usually occurs in early middle adolescence, but can occur at any age. [60] While the incidence of anorexia nervosa has not changed much in the general population in the past years, its incidence has increased at the age of 15 and under .[61] While the lifetime incidence of anorexia nervosa was 4% in women, it was 0.3% in men. [61]In a meta-analysis of 36 studies, the death rate for anorexia nervosa was 5.1 per 1000 people per year[62] . Anorexia nervosa has the highest mortality rate among psychiatric disorders due to both suicide and medical reasons. [62]

In the treatment method, whether the disease is acute or chronic, accompanying conditions such as anxiety and depression, whether the patient is a child or adult, and whether there is malnutrition or not are determinants.[63] While family-based treatments are at the forefront in adolescents in psychological treatment methods, individual therapies are predominant in adults, but no superiority of any approach over the other

has been observed. [63] Although drug treatment is used in comorbid diseases such as depression, anxiety, and obsession, there is no definitive drug treatment that has been included in the guidelines yet, as possible side effects cannot be foreseen.[64]

The diagnostic criteria for anorexia nervosa published in the DSM V[43] handbook are as follows:

A. Attitudes to restrict energy intake according to their needs should lead to a markedly low body weight in terms of the individual's age, sex, developmental path, and body health. A markedly low body weight is defined as below the usual minimum.

B. Intense fear of gaining body weight or gaining weight, or engaging in restraint/subtraction behaviors that make it difficult to gain weight despite being at a markedly low body weight.

C. There is a disorder in how the individual perceives their body weight or shape. The individual places undue importance on body weight and shape when evaluating himself, or he never realizes the importance of low body weight at that time.

1. Restrictive Type: The individual should not have recurrent episodes of binge eating or purging (eg, self-induced vomiting or abuse of laxatives, diuretics, or enemas) in the past three months. This subtype should describe appearances in which body weight is lost by dieting more, eating little and/or exercising excessively.

2. Binge Eater/Putting Type: The individual must have had recurrent episodes of binge eating or purging (eg, self-induced vomiting or abuse of laxatives, diuretics, or enemas) in the past three months.

2.5.6 Bulimia Nervosa

In 1979, British Psychiatrist Dr. Gerard Russell described a new eating disorder. [65] He defined this eating disorder as the chronic phase of anorexia nervosa and named it bulimia nervosa .[65]Dr. Russell observed behaviors such as vomiting himself and using laxatives to compensate after overeating in the patient group he observed. [65]

Bulimia nervosa is characterized by purging behavior following binge eating .[66]Purging behavior includes behaviors such as vomiting, use of laxatives or diuretics, excessive exercise, and abuse of insülin.[66] Self-induced vomiting and use of laxatives constitute 90% of the purging behaviors in Bulmia nervosa. [67] Most people with bulimia nervosa are normal or overweight, which can make diagnosis difficult. [43]Thelifetime prevalence of blumia nervosa is 3% in women and 1% in men .[61]

For the treatment of bulimia nervosa, National Institute for Health and Care Excellence (NICE) recommends family-based therapies for adolescents, while cognıtıve behavioral therapy (CBT) or guided self-help methods are recommended for adults.[68] Meta-analyses have shown that fluoxetine treatment supports remission at a non-significant level compared to other methods.

The diagnostic criteria for bulimia nervosa published in the DSM V [43]handbook are as follows:

A. There should be recurrent episodes of binge eating. A binge-eating episode should include both:

1. Eating significantly more food in a separate unit of time (eg, in any two-hour period) in similar circumstances, in a similar amount of time, than most individuals would eat.

2. The presence of a sense of loss of control over eating during this episode (eg, a feeling that the individual cannot stop eating, feeling that he cannot control what or how much he eats)

B. Engage in repetitive, inappropriate compensatory behaviors to avoid body weight gain, such as self-induced vomiting, abuse of laxatives, diuretics or other medications, binge eating, or excessive exercise.

C. Both these binge eating behaviors and inappropriate compensatory behaviors should occur at least once a week for an average of three months.

D. Self-evaluation should be unduly influenced by body shape and weight.

E. This disorder should not occur only during episodes of anorexia nervosa.

The severity of bulimia nervosa can be determined according to the frequency of inappropriate compensatory behaviors [43] (Table 2.5.6)

Table 2.5.6 Grading of inappropriate compensatory behaviors [43]

Degree	Frequency of inappropriate compensatory behavior
Not heavy	On average one to three times a week
Moderate	On average four to seven times a week
Heavy	On average eight to thirteen times a week
Excessively	On average fourteen or more times a week

2.5.7 Binge Eating Disorder

The features of binge eating disorder were first described by psychiatrist Dr Albert Stunkard in 1959 as a result of his observations in obese individuals. [69] Previously, binge eating disorder was included in the Diagnostic and Statistical Manual of Mental Disorders 4 under the heading "Eating Disorders Not Otherwise Specified", while it was defined as a separate eating disorder in the DSM-V. [4370]Although the prevalence of binge eating disorder in the general population is estimated to be 1.4%, this rate is higher in obese individuals regardless of gender. [70] The incidance in the genreal population is higher in women. [70] Although the onset of binge eating disorder was previously known as adulthood, studies now say that the age of onset covers the period from late teens to early 20s [70].Individuals with binge eating disorder may also be struggling with obesity and other diseases that accompany obesity. [70]These individuals may also suffer from depression and anxiety due to concerns about food, body shape, and weight. [71,72] In the treatment of the disease, a multidisciplinary perspective should be approa.ched first in the elimination of binge attacks and then in the realization of weight loss. [72,73] Although psychotherapeutic approaches, including CBT, are recommended for initial treatment, there is insufficient evidence for long-term weight loss .[74] At the same time, behavioral weight loss treatment (BWL) , psychoeducation or self-help approaches may also be effective in milder symptoms . [72,75]Although selective

serotonin reuptake inhibitors (SSRI) group drugs are used especially in reducing the urge to eat and improving depressive symptoms, long-term pharmacotherapy needs to be investigated. [74,76]Studies have shown that the incidence of binge eating disorder among bariatric surgery candidates is between 5% and 50%. [77,78]Although bariatric surgery is not currently a treatment for binge eating disorder, more studies should be conducted on its effect in patients with obesity. [79,80]

The diagnostic criteria for binge eating disorder published in the DSM V[43] handbook are:

A. There are recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:

1. Eating in a separate unit of time (eg, in any two-hour period) clearly more than most individuals would eat in similar circumstances in a similar period of time.

2. A sense of loss of control over eating during this episode (eg, a feeling that the individual cannot stop eating, a feeling of being unable to control what or how much they are eating).

B. Episodes of binge eating are accompanied by three (or more) of the following:

1. Eating much faster than usual.

2. Do not eat until you feel uncomfortably full.

3. Do not eat excessively when you are not physically hungry.

4. Do not eat by yourself because you are ashamed of how much you have eaten.

5. Later experience self-disgust, depression, or greater guilt.

C. Marked distress associated with binge eating.

D. These binge eating behaviors should occur at least once a week for an average of three months.

E. Episodes of binge eating should not be accompanied by recurrent inappropriate compensatory behaviors as in bulimia nervosa and should not occur during binge eating, bulimia nervosa or anorexia nervosa.

The severity of binge eating disorder can be determined according to the frequency of binge eating [43] (Table 2.5.7)

Table 2.5.7 Grading the frequency of binge eating episodes [43]

Degree	Frequency of binge eating
not heavy	On average one to three times a week
Moderate	On average four to seven times a week
Heavy	On average eight to thirteen times a week
Excessively	On average fourteen or more times a week

2.6 Other Specified Feeding or Eating Disorders

Other defined nutrition and eating disorders are those in which features of nutrition and eating disorders with clearly defined diagnostic criteria predominate, but which cause a clinically significant problem, impairment in social and social areas or areas of functioning, but for the diagnosis of any of these in the nutrition and eating disorders diagnostic cluster. This category is used in cases where the diagnostic criteria are not fully met.[43] Studies have found little difference in eating pathology between eating disorders and other specified eating disorders [81–83] The diagnostic criteria published in the DSM V handbook of other defined feeding and eating disorders are as follows:

1. Atypical anorexia nervosa: All criteria for anorexia nervosa must be met, except that an individual's body weight is within or above the usual range despite significant body weight loss.

2. Bulimia nervosa (of low frequency and/or limited duration): All criteria for bulimia nervosa must be met, except that binge eating and inappropriate compensatory behaviors are on average less than once a week and/or lasting less than three months.

3. Binge Eating Disorder (of low frequency and/or limited duration**:** All criteria for binge eating disorder must be met, except that episodes of binge eating are, on average, less than once a week and/or lasting less than three months.

4.Purging Disorder: To influence body weight or shape, the criterion for recurrent purging behaviors must be met without episodes of binge eating.

5.Night Eating Syndrome: It is characterized by recurrent episodes of nocturnal eating characterized by an episode of waking up eating or after-dinner eating. The individual is aware of what he ate and remembers what he ate. Nocturnal episodes of eating cause marked distress and/or reduced functioning. The disordered eating pattern should not be better explained by binge eating disorder or another mental disorder, including substance use, and should not be attributed to another health condition or the effect of a drug.

2.7 Unspecified Feeding and Eating Disorders

Lesser-known eating disorders not included in the DSM-V diagnostic criteria studies are increasing day by day. The main of these eating disorders are orthorexia nervosa, bigorexia, diabulimia ,female athlete triad.

2.7.1 Orthorexia Nervosa

Orthorexia nervosa was defined by Dr. Steven Bratman in 1997 as a pathological obsession with healthy eating and "cleanliness" of food. Individuals conduct detailed research on toxins that can contaminate food and may limit nutrients that they consider harmful to health, such as sugar and saturated fat .[84] Although individuals aim to improve their health, such a restricted diet can lead to malnutrition, social isolation, and psychological disorders .[85]

2.7.2 Bigorexıa

Body dysmorphic disorder is characterized by the impairment of functionality as a result of excessive preoccupation with a body defect that does not actually exist, but overestimating it, even if there is a body defect .[86] Bigorexia or reverse anorexia, which is one of the body dysmorphic disorders, is defined as the obsession with muscle-building seen in men. [87,88]

2.7.3 Diabulimia

Diabulimia is a serious eating disorder that develops in individuals with Type 1 diabetes. These individuals may stop or reduce their insulin intake to lose weight.[89]

2.7.4 Female Athlete Trıad

Female athlete triad is a complicated condition seen in young female athletes, characterized by low energy intake, menstrual disorder and decreased bone mineral density.[90]

2.8 Healthy Diet

Cancer, obesity, diabetes, cardiovascular diseases, cognitive diseases cause 41 million deaths per year.[91] Unhealthy diet, alcohol and cigarette use, physical inactivity are risk factors for non-communicable diseases (NCDs) .[91] NCDs have also increased in parallel with the global rise of the western diet, which contains high levels of refined carbohydrates, saturated fats, refined sugars, processed meats, and low proportions of fruits and vegetable. [92] Mediterranean diet, Dietary Approaches to Stop Hypertension (DASH) and Mediterranean-DASH Intervention for Neurodegenerative Delay (MIND) are dietary models used in the prevention of chronic diseases based on the literatüre. [93–95] Healthy diet is a type of nutrition that basically contains all macro and micro nutrients in the amounts that the person needs, at the same time fully meets the amount of energy needed by the individual, and is suitable for maintaining the ideal weight. [96] Figure 1 shows the elements of healthy life and healthy eating. [97]

Macronutrients are carbohydrates, fats and proteins and are used as cellular energy sources. Micronutrients, vitamins and minerals, are necessary for growth, development and maintenance of physiological functions. [98–100] Carbohydrates are the body's primary source of energy and are found in grains, fruits, legumes, and vegetables. [101] In meta-analyses, it has been shown that whole grain consumption is superior to refined grain consumption in terms of health benefits, and whole grain consumption reduces the risk of cardiovascular disease, cancer, stroke and diabetes.[102–104] Proteins consist of amino acids and are included in the body's structure and used as energy. Proteins can be of animal or vegetable origin, animal proteins are superior in terms of bioavailability. [105,106] However, animal proteins can cause cardiovascular disease, cancer and dyslipidemia due to the saturated fat they contain.[107]Although the exact mechanism is

not known, it is known that consumption of red meat and processed meat increases the risk of colorectal cancer. [108]Protein intake is important for the preservation of muscle-bone tissue throughout life, and adequate protein intake should be considered to prevent bone tissue loss and reduce the risk of fracture, especially as age progresses. [109,110] Fats are used to give energy in the body, and they also participate in the cellular membrane structure. [111] Fats are basically divided into four groups; monounsaturated fats, polyunsaturated fats, saturated fats and trans fats. [111] While unsaturated fats reduce the risk of cardiovascular disease and mortality, trans fats and saturated fats increase the risk of mortality and adversersly affect health.[112,113]

Micronutrients as well as macronutrients are important for maintaining normal metabolic activities, however, with the increase in processed food consumption, the vitamin-mineral values of foods have decreased.[114,115]Intake of minerals with high antioxidant content such as vitamins A, E, C and copper, zinc, selenium is important for the prevention of aging-related diseases. [116]

Cena H, Calder PC. Defining a Healthy Diet: Evidence for The Role of Contemporary Dietary Patterns in Health and Disease. Nutrients. 2020 Jan 27;12(2):334. doi: 10.3390/nu12020334. PMID: 32012681; PMCID: PMC7071223

Figure 1: Healthy Diet and Lifestyle Pyramid

3.MATERIALS AND METHOD

This study was conducted with total of 397 individuals between the ages of 18 and 65, who did not have a chronic disease requiring restriction in their diet, who came to Sevinç Pharmacy in Kocaeli betwenn the dates of 01.06.2021-30.09.2021 after the approval of the Yeditepe University Non-interventional Ethics Committee.

Volunteers who meet the inclusion criteria after ethics committee approval; A data collection tool is used in which demographic data, nutritional habits and physical activity levels questioned, and the Eating Attitudes Test (EAT-40) and The Fear of COVID-19 Scale (FCV-19) , for which permissions are obtained from the scale owners, applied. Eating disorder tendency measured with EAT-40, and fear of COVID-19 will be measured with FCV-19 Approximately 2000 people visit the pharmacy per month. In this case, it is thought that 6000 patients will visit for 3 months. It is aimed to reach a minimum of 385 people who meet the inclusion criteria, based on the 95% confidence level, 5% effect level and heterogeneous distribution from the sample of unknown population.

3.1 Eating Attitude Test-40 (EAT-40)

The Eating Attitude Test is structured to measure the eating behaviors and attitudes of patients with eating disorders and the symptoms of possible disorders in eating behavior in normal individuals. The Eating Attitude Test (EAT-40), whose original form is in English, was developed by Garner and Garfinkel in 1979 as a self- assessment that objectively measures the symptoms of anorexia nervosa and bulimia nervosa.[117] It provides more detailed information in the clinical evaluation as well as identifies the changes that occur as a result of the treatment. On the other hand, the scale is also used as a screening tool to investigate previously undiagnosed anorexia nervosa cases in populations that constitute the high risk group for the disease.

Turkish validity and reliability studies for EAT were conducted by Işık Savaşır and Neşe Erol in 1989 in a sample of 745 women representing a wide age distribution and socio-cultural level; and later in 2000 by Elal, Altuğ, Slade and Tekcan In these studies, five factors emerged: dieting, bulimia and body size, preoccupation with food, oral control, and conflicting thoughts and feelings about food. [118,119] Substances; In its second edition, it took the form of a 6-point multiple-choice scale consisting of

“always”, “very often”, “often”, “sometimes”, “rarely” and “never” options. It is evaluated in terms of pathology by giving 3 points for each extreme response, 2 and 1 points for other options. The total score is obtained by scoring the rating. A score of 30 and above is significant, and the total score level is directly related to the level of psychopathology. The discrimination score for the diagnosis of anorexia has been determined as 30, a maximum of 120 points can be obtained from the test.

3.2 Fear of COVID-19 Scale (FCV-19S)

It was developed by Ahorsu et al. to measure the fear levels of individuals due to COVID-19 [120]. The adaptation to Turkish was made by Kaya,Dünder,Çakıroğlu,Uzdil [121]. The items of the scale were created based on a comprehensive review of the existing scales on fear, expert evaluations and participant interviews. The scale has a single factor structure and consists of seven Likert-type (1 = Strongly disagree; 5 = Strongly agree) items. Whether there is a correlation between the items, which is the prerequisite of the study factor analysis, was examined with the Bartlett Sphericity test ($\chi 2$ =270.755, p0.5) and the Cronbach alpha internal consistency coefficients (0.874), and it was determined that the whole scale reflects the fear state due to the Covid-19 epidemic. The high score obtained indicates that the fear of COVID-19 is high. As a result of the analyzes made, it is suitable to measure the level of fear developed due to COVID-19 in adults, and the Turkish version of this scale has been found to be valid and reliable. [122]

3.3 Evaluation of Data

Analysis of research data have been done in Windows environment using Statistical Package for the Social Sciences (SPSS) 26.0 program. Quantitative data which was obtained from the research have been presented with mean, standard deviation, lower and upper values. Compliance of the data obtained with normal distribution have been checked with Kolmogorov Smirnov test, Student’s t Test used for 2-group comparison of normally distributed data (parametric), and ANOVA have beenused for comparison of 3 or more groups. Kruskal Wallis have been used in the comparison of the data of three or more groups that are not normally distributed (non-parametric). Qualitative data have been presented with frequency and percentage values. Chi-square tests have been used in the evaluation of qualitative data. Statistical significance will be considered as $p<0.05$.

4.RESULTS

4.1 GENERAL CHARACTERISTICS

In working status, the option "I was laid off during the pandemic" is also included, but it was not included in the analysis because there was no participant who chose it. 62.2% of the participants are women, 37.8% are men, 30.2% are single, 69.8% are married. 4.5% of them are primary school graduates, 6% are secondary school graduates, 23.4% are high school graduates, 9.6% are associate degree graduates, 49.4% are university graduates, 7.1% are graduate and above, no one marked the literate option. Looking at the BMI classification; 3.8% were underweight, 46.1% were normal weight, 36.3% were overweight, 10.8% were 1st class obese, 2.3% were second class obese, and 5.5% were third class obese. 41.8% of the participants smoked, 58.2% 2 of them do not smoke. 30.7% of the participants use alcohol, while 69.3% do not use alcohol. Considering their working status; 19.4% are not working, 20.6% are students, .8% are on paid leave, 8.8% are working flexibly and 60.5% are working. 14.4% of the participants are young, 25.4% are young adults, 59.2% are adults.Genereal characteristics of participants are shown in Table 4.1

Table 4.1 General Characterıstıcs

	N	%
Sex		
Women	247	62.2
Men	150	37.8
Marital Status		
Single	120	30.2
Married	277	69.8
Education		
Primary school	18	4.5
Secondary school	24	6.0
High school	93	23.4
Associate deree	38	9.6
Unıversity	196	49.4
Master’s degree and above	28	7.1
BMI		
Underweight	15	3.8
Normal weight	183	46.1
Overweight	145	36.3
Obesity Class I	43	10.8

Obesity Class II Obesity Class III	9 2	2.3 .5
Smoking Yes No	 166 231	 41.8 58.2
Drinking Alcohol Yes No	 122 275	 30,7 69.3
Working Status Not working Student Paid vacation Flexible working Working	 77 42 3 35 240	 19.4 20.6 .8 8.8 60.5
Age 18-24 25-35 36-65	 57 101 239	 14.4 25.4 59.2

Since only people who are currently working and students are asked to answer these questions, those people are included. 13.1% (n=37) of the participants are currently working or studying from home, while 86.9% (n=245) are not currently working or studying from home. 67% (n=189) of the participants worked or studied from home during the pandemic period, and 33% (n=92) did not work or study from home during the pandemic period.Working/studying home situation is shown in Table 4.2

Table 4.2 Work/study from home situation

	N	**%**
Are you currently working/studying from home ? Yes No	 37 245	 13.1 86.9
Did you work/study from home during the pandemic? Yes No	 189 92	 67 33

44.3% (n=176) of the participants gained weight, 11.6% (n=46) lost weight, 42.8% (n=170) did not know the weight change and 1.3% (n=5) did not change their weight.Weight change of individuals during the pandemic is shown in Table 4.3.

Table 4.3 Weight Change During the Pandemic

	N	%
I gained weight	176	44.3
I lost weight	46	11.6
I don't know	170	42.8
Unchanged	5	1.3

Considering how the participants accessed health-related information during the pandemic period; 46.6% (n=185) reached from social media and websites, 21.9% (n=87) from health professionals, 19.9% (n=79) from television, .8% (n=3) from newspapers, 10.8% (n=43) from family and friends.Ways to Access health -related information during the pandemic period is shown in Table 4.4.

Table 4.4 Health related information accessing way

	N	%
Social media and websites	185	46.6
Health professionals (doctor,dietitian,pharmacists etc.)	87	21.9
Television	79	19.9
Newspaper	3	.8
Family and friend	43	10.8
Total	397	10

There was no significant difference between female (X=2.43) and male (X=2.25) gender in terms of fear of COVID-19 ($T(397) = 1.70$; p=0,089). The maximum mean score that

can be obtained from the scale is 7 points, while the mean score for female is 2.43, while the mean score for male is 2.25. the distribution of the covid-19 fear levels of the participants by gender is shown in Table 4.5

Table 4.5 The Relationship Between Sex and Fear of COVID-19

COVID-19 Fear	**Sex**	**N**	**Mean**	**SD**	**p**
COVID-19 Fear	Women Men	247 150	2.43 2.25	.88 1.08	.089

Independent samples t-test was used for evaluation

In the analysis, no significant relationship was found between fear of COVID-19 and educational status (*p*=.351) the relationship between education level and fear of covid-19 **.** The relationship between education status and fear of COVID-19 is shown in Table 4.6.

Table 4.6 The relationship between education status and fear of COVID-19

Educational Status		**COVID-19 Fear**		
	n	**Mean**	**SD**	**p**
Primary school	182	2.722	.839	.351
Secondary school	24	2.631	.951	
Highschool	93	2.267	1.015	
Associate degree	38	2.282	1.079	
Unıversity	196	2.371	.953	
Master's degree and above	28	2.321	.790	
Total	397	2.366	.048	

One way Anova was used for evaluation

No significant relationship was found between smokers (X=2.33) and non-smokers (X=2.39) by fear of covid-19 (p=0.537) . The relationship between smoking status and fear of covid-19 is shown in Table 4.7.

Table 4.7 The relationship between smoking status and fear of COVID-19

COVID-19 Fear	**Smoking Status**	**n**	**Mean**	**SD**	**p**
COVID-19 Fear	Yes No	166 231	2.33 2.39	1.01 .92	.537

Independent samples t-test was used for evaluation

In the analysis, a significant relationship was found between weight change and fear of covid-19 during the pandemic (p=0.12) According to the Tukey test, which was conducted to understand in which groups the fear of COVID-19 differs; The fear of covid-19 is higher in the weight gain group (X=2.535) than in the group whose weight did not change (X=2.200). shows the relationship between weight change and fear of COVID-19 during the pandemic is shown in Table 4.8.

Table 4.8 The relationship between weight change and fear of COVID-19 during the pandemic

	n	**Mean**	**SD**	**p**
Gained weight [a]	176	2.535	.968	.012
Lost weight	46	2.304	.877	
Unchanged [b]	170	2.200	.946	
I don't know	5	2..628	1.557	
Total	397	2.366	.966	

One way Anova was used for evaluation

For compliance with the chi-square test during analysis; "I don't know" and "Unchanged" options were combined in the change about weight and included in the analysis. In the analysis, it was seen that the eating attitude differed between the weight change groups (x^2 (2) =15.724; p<0.05).As a result of post-hoc analyzes, it was seen that there were more people with eating disorders in the weight loss group, and more healthy individuals in the group whose weight did not change. The relationship between eating attitude and weight change during the pandemic period is shown in Table 4.9.

Table 4.9 The relationship between eating attitude and weight change during the pandemic period

Weight Change	**Eating Attitude**				
	Healthy	**Prone to eating disorder**	**x^2**	**df**	**p**
Gained weight	158	18	15.724	2	,000
Lost weight	37	9			
Unchanged	170	5			
Total	365	32			

Ki-square test was used for evaluation.

No significant relationship was found between gender and eating attitudes (x^2(1)=.527; p=.468) The relationship between eating attitude and gender is shown in Table 4.

Table 4.9 The relationship between eating attitude and sex

Sex	Eating Attitude				
	Healthy	**Prone to eating disorder**	**x^2**	**df**	**p**
Women	229	18	.527	1	.468
Men	136	14			

Ki-square test was used for evaluation.

No significant relationship was found between BMI and eating attitude (p=.417). The relationship between eating attitude and body mass index is shown in Table 4.10.

Table 4.10 The relationship between eating attitude and BMI

	n	**Mean rank**	**x^2**	**Df**	**p**
Healthy	365	197,60	.674	1	.417
Prone to eating disorder	32	214,97			

Kruskal-wallis test was used for evaluation

No significant relationship was found between covıd-19 fear and eating attitude (p=.702) The relationship between eating attitude and COVID-19 fear is shown in Table 4.11

Table 4.11 The relationship between COVID-19 and Eating Attıtude

	n	**Mean rank**	**x^2**	**Df**	**p**
Healthy	365	198.35	.147	1	.702
Prone to eating disorder	321	206.44			

Kruskal-wallis test was used for evaluation

Sleep time increased after the pandemic (X=1.833) compared to the previous (X=1.778) period. As the score increases due to the order of sleep quality options, sleep quality decreases. After the pandemic (X=3.017) and before the pandemic (X=2.901), the sleep quality decreased. Weekly physical activity level after the pandemic (X=1.765), before the pandemic (X= 1.937) decreased compared to the period. The time spent in front of the screen (X=3.080) increased after the pandemic compared to the previous period (X=2.617). The online shopping preference in shopping methods increased after the pandemic (X=1.254) compared to the previous (X=1.073) period. The rate of disinfecting shopping bags decreased after the pandemic (X=1,430) compared to the previous (X=1,823) period.The lifestyle change during the covid-19 period is shown in Table 4.12.

Table 4.12 Lıfestyle changes during COVID-19 pandemic

	Mean	SD	p
How many hours a day did you sleep before the COVID-19 pandemic?	1.778	.542	.008
How many hours a day did you sleep after the COVID-19 pandemic?	1.833	.575	
How would you describe your sleep quality before the COVID-19 pandemic?	2.901	726	.000
How would you describe your sleep quality after the COVID-19 pandemic?	3.017	.756	
How was your weekly physical activity level before the COVID-19 pandemic?	1.937	1.058	.000
How would you describe your weekly physical activity level after the COVID-19 pandemic?	1.765	.988	
How much time did you spend in front of the screen in a day before the COVID-19 pandemic?	2.617	1.154	.000
How much time do you spend in front of the screen in a day after the COVID-19 pandemic?	3.080	1.254	

	Mean	SD	p
Which method did you prefer for your food shopping before the COVID-19 pandemic?	1.073	.270	.000
Which method do you prefer for your food shopping after the COVID-19 pandemic?	1.254	.441	
Did you disinfect the food shopping bags that came to the house before the COVID-19 pandemic?	1.823	.381	.000
Did you disinfect the food shopping bags that came to the house after the COVID-19 pandemic?	1.430	.500	

Paired samples t-test used for evaluation.

Change in eating habits during the pandemic is shown in Table 4.13

Table 4.13 Eating Habıts Change During the Pandemic

%	Much lower	Lower	About the same	Higher	Much higher
Water intake	1.3	7.3	63.7	22.9	4.8
Fresh/dried fruit consumption	4.5	62	33.5		
Vegetable consumption	1.3	3.8	69	20.7	5.3
Legumes consumption	1.8	3.5	82.1	10.1	2.5
Whole grain consumption	1.3	5	72.5	18.1	3
Dairy products consumption	.8	4.5	72	19.4	3.3
Meat,chickhen,fish consumption	1	4.8	66.2	23.9	4
Herbal tea consumption	3.5	3	59.4	28.5	5.5
Nut consumption	1.5	1.8	67.3	25.9	3.5
Processed meat consumption	5.8	16.9	65.5	10.3	1.5
Packaged food consumption	5.5	20.4	50.9	20.9	2.3
Homemade pastry consumption	3.3	11.6	47.6	33.2	4.3
Fast-food consumption	11.6	23.7	48.1	13.9	2.8

	Much lower	Lower	About the same	Higher	Much higher
Sugary drink consumption	11.6	14.4	62.5	9.3	2.3
Frequency of breakfast	1.8	7.3	66.8	20.9	3.3
Frequency of lunch	3.3	10.6	75.1	9.3	1.8
Frequency of dinner	.3	2	82.1	13.6	2
Frequency of snack	5.5	8.3	65.5	19.4	1.3
Number of meals per day	2	9.1	68.5	19.4	1
Use of supplements	2	1.3	46.3	40.1	10.3

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. No relationship was found between fear of Covid-19 and water consumption (p=0.63). the relationship between fear of COVID-19 and water consumption is shown in Table 4.14

Table 4.14 COVID-19 Fear and Water Intake

	n	Mean	SD	p
Much lower+lower	34	2.4538	.9160	0.63
About the same	253	2,2857	.9488	
Higher	91	2.4631	.9256	
Much higher	19	2.8271	1.3253	
Total	397	2.3667	.9667	

One way Anova was used for evaluation

Those who marked the options "much lower" and "lower " were gathered in a single group because the number of them was low. There was no relationship between fear of COVID-19 and consumption of fresh/dried fruit (F=2.207,p=0.87). The relationship between the fear of COVID-19 and the consumption of fresh/dry fruit is shown in Table 4.15

Table 4.15 COVID-19 Fear and Fresh/Dried Fruits

	n	Mean	SD	p
Much lower+lower	18	2.619	.869	.087
About the same	246	2.293	.971	
Higher	114	2.414	.902	
Much higher	19	2.789	1.243	
Total	397	2.366	.966	

One way Anova was used for evaluation

Those who marked the options "much lower" and "lower" were grouped together in a single group because of the low number of options. A significant relationship was found between the fear of Covid-19 and vegetable consumption (p=0.06) According to the Tukey test, the covid-19 fear of the participants in "a" group (X=2.900) is higher than

those in the “b” group (X=2.281). The relationship between the fear of Covid-19 and vegetable consumption is shown in Table 4.16

Table 4.16 COVID-19 Fear and Vegetable Consumptıon

	N	**Mean**	**Sd**	**p**
Much lower +lower [a]	20	2.900	.895	.006
About the same [b]	274	2.281	.969	
Higher	82	2.412	.874	
Much higher	21	2.789	1.117	
Total	397	2.366	.966	

One way Anova was used for evaluation

A significant relationship was found between the fear of COVID-19 and legume consumption (X^2 =18.200 ;p=0.001) . A significant relationship was found between the fear of COVID-19 and consumption of legumes. The Games-Howell test was applied to understand which groups the relationship was between. The “a” group had more fear of COVID-19 than the “b”, “c” and “d” groups. The relationship between the fear of Covid-19 and legumes consumption is shown in Table 4.17.

Table 4.17 COVID-19 Fear and Legumes Consumption

	N	**Mean rank**	**x²**	**df**	**p**
Much lower [a]	7	347.50	18.200	4	.001
Lower [b]	14	214.68			
About the same [c]	326	190.90			
Higher [d]	40	216.35			
Much higher	10	267.90			
Total	397				

Kruskal-wallis test was used for evaluation

Those who marked the options "much lower" and "lower" were grouped together in one group because of the low number of options. There was no significant relationship between fear of COVID-19 and consumption of whole grain. The relationship between the fear of COVID-19 and consumption of whole grain is shown in Table 4.18 (p= 0.52)

.**Table 4.18 COVID-19 Fear and Whole Grain Consumption**

	n	**Mean**	**SD**	**p**
Much lower+lower	25	2.588	.988	.052
About the same	288	2.289	.950	
Higher	72	2.507	.947	
Much higher	12	2.904	1.201	
Total	397	2.366	.966	

One way Anova was used for evaluation

Those who marked the options "much lower" and "lower" were grouped together in one group because of the low number of options. There was no significant relationship between fear of COVI-19 and consumption of dairy products (p=.694).The relationship between the fear of COVID-19 and consumption of dairy products is shown in Table 4.19.

Table 4.19 COVID-19 Fear and Dairy Consumption

	n	**Mean**	**SD**	**p**
Much lower + lower	21	2.210	.943	.694
About the same	286	2.349	.979	
Higher	77	2.458	.904	
Much higher	13	2.461	1.120	
Total	397	2.366	.966	

One way Anova was used for evaluation

Those who marked the options “much lower” and “lower” were gathered in one group because the number of them was low. There was no significant relationship between the fear of COVID-19 and consumption of meat, chicken, fish (*p*=.086). The relationship between the fear of COVID-19 and the consumption of meat, chicken, fish is shown in Table 4.20.

Table 4.20 COVID-19 Fear and Meat,Chickhen,Fish Consumption

	N	**Mean**	**SD**	**p**
Much lower+lower	23	2.534	1.145	.086
About the same	263	2.289	.960	
Higher	95	2.562	.859	
Much higher	16	2.232	1.264	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and consumption of herbal tea (*F*=1.302;p=.269) The relationship between fear of COVID-19 and consumption of herbal tea is shown in Table 4.21.

4.21 COVID-19 Fear and Herbal Tea (Linden,green tea,sage etc.) Consumption

	N	**Mean**	**SD**	**p**
Much lower	14	2.377	1.310	.269
Lower	12	2.345	1.073	
About the same	236	2.290	.943	
Higher	113	2.461	.908	
Much higher	22	2.701	1.166	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and consumption of nuts (p=.104) **.** The relationship between fear of COVID-19 and consumption of nuts is shown in Table 4.22.

4.22 COVID-19 Fear and Nut Consumption

	N	**Mean**	**SD**	**p**
Much lower	6	3.285	.657	.104
Lower	7	2.408	.854	
About the same	267	2.305	.985	
Higher	103	2.4432	.874	
Much higher	14	2.551	1.247	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and consumption of processed meats (p=.089) The relationship between fear of COVID-19 and consumption of processed meats is shown in Table 4.23.

Table 4.23 COVID-19 Fear and Processed Meat Consumption(Bacon,salami,sausage and smoked meat)

	N	**Mean**	**SD**	**P**
Much lower	23	2.596	.963	.089
Lower	67	2.530	.965	
About the same	260	2.278	.931	
Higher	41	2.442	1.018	
Much higher	6	2.976	1.676	
Total	397	2.366	.966	

A significant relationship was found between the fear of COVID-19 and packaged food consumptipon (*p*=.005) . Tukey test was applied to understand which groups the relationship was between. The "e" group (X=3.555) ; have more fear of COVID-19 than the "a" (X=2.506) , "b" (X=2.354) , "c" (X=2.305) and "d" (X=2.361) groups. The relationship between the fear of COVID-19 and packaged food consumption is shown in Table 4.24.

Table 4.24 COVID-19 Fear and Packaged Food Consumption (Candy,chocolate,biscuit,cracker,chips etc.)

	N	**Mean**	**SD**	**p**
Much lower [a]	22	2.506	.767	.005
Lower [b]	81	2.354	.925	
About the same [c]	202	2.305	.989	
Higher [d]	83	2.361	.878	
Much higher [e]	9	3.555	1.372	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and consumption of pastries (*p*=.067). The relationship between fear of COVID-19 and consumption of homemade pastries is shown in Table 4.25.

4.25 COVID-19 Fear and Homemade Pastry (Cake,cookie,pastry etc.) Consumption

	N	**Mean**	**SD**	**p**
Much lower	13	2.527	911	.067
Lower	46	2.403	1.003	
About the same	189	2.2412	.965	
Higher	132	2.457	.909	
Much higher	17	2.831	1.194	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and consumption of fastfood (*p*=.103). The relationship between fear of COVID-19 and consumption of fastfood is shown in Table 4.26.

4.26 COVID-19 Fear and Fastfood Consumption

	N	**Mean**	**SD**	**p**
Much lower	46	2.580	.984	.103
Lower	94	2.468	.898	
About the same	191	2.237	.994	
Higher	55	2.410	.840	
Much higher	11	2.636	1.346	
Total	397	2.366	.966	

One way Anova was used for evaluation

A significant relationship was found between the fear of COVID-19 and non alcoholic beverages consumptipon (*p*=.002) According to the Tukey analysis, the "a" group (*X*=2.760) has more fear of covid-19 than the "b" group (*X*=2.284) and the "c" group (*X*=3.174) has more fear of covid-19 than the "b" group (*X*=2.284). The relationship between the fear of COVID-19 and non-alcoholic beverages consumption is shown in Table 4.27.

4.27 COVID-19 Fear and Non-Alcoholıc Beverages Consumption

	N	**Mean**	**SD**	**p**
Much lower[a]	46	2.760	.930	.002
Lower	57	2.250	.948	
About the same[b]	248	2.284	.	
Higher	37	2.409	1.009	
Much higher[c]	9	3.174	1.451	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and frequency of breakfast (*p*=.627). The relationship between fear of COVID-19 and frequency of breakfast is shown in Table 4.28.

4.28 COVID-19 Fear and Frequency of Breakfast

	n	**Mean**	**SD**	**p**
Much lower	7	2.489	.737	.627
Lower	29	2.477	1.161	
About the same	265	2.312	.954	
Higher	83	2.459	.944	
Much higher	13	2.560	1.045	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and frequency of lunch (X^2 =4.192;*p*=.381**).** The relationship between fear of COVID-19 and frequency of lunch is shown in Table 4.29.

4. 29 COVID-19 Fear and Frequency of Lunch

	n	**Mean rank**	**x²**	**df**	**p**
Much lower	13	214.54	4.192	4	.381
Lower	42	190.24			
About the same	298	195.33			
Higher	37	221.51			
Much higher	7	259.79			
Total	397				

Kruskal-wallis test was used for evaluation

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and frequency of dinner (X^2=2.295; p=.513) **.** The relationship between fear of COVID-19 and frequency of dinner is shown in Table 4.30.

4.30 COVID-19 Fear and Frequency of Eating Dinner

	n	**Mean rank**	**x²**	**df**	**p**
Much lower +lower	9	216.28	2.295	3	.513
About the same	326	195.43			
Higher	54	211.23			
Much higher	8	242.56			
Total					

Kruskal-wallis test was used for evaluation

A significant relationship was found between the fear of COVID-19 and eating snack (p=.007). Those who marked the options "much higher" and "higher" were grouped together in one group because the number of them was low. According to the Tukey test, the COVID-19 fear of the participants in the "a" group (X=2.844) is higher than those in the "b" group (X=2.256). The relationship between the fear of COVID-19 and eating snack is shown in Table 4.31.

4.31 COVID-19 Fear and Frequency of Eating Snack

	n	Mean	SD	p
Much Lower [a]	22	2.844	1.101	
Lower	33	2.580	1.003	.007
About the same[b]	260	2.256	.938	
Higher+Much higher	82	2.5012	.948	
Total	397	2.366	.966	

One way Anova was used for evaluation

A significant relationship was found between the fear of COVID-19 and number of meals per day (p=.002). Those who marked the options "much higher" and "higher" were grouped together in one group because the number of them was low. According to the Tukey test, the COVID-19 fear of the participants in the "a" group (X=3.678) is higher than those in the "b" (X=2.301) , "c" (X=2.343) and "d" (X=2.343) group . The relationship between the fear of COVID-19 and number of meals per day is shown in Table 4.32.

4.32 COVID-19 Fear and Number of Meals per Day

	N	Mean	SD	p
Much lower[a]	8	3.678	1.228	
Lower[b]	36	2.301	.684	.002
About the same[c]	272	2.343	.997	
Higher+much higher[d]	81	2.343	.860.	
Total	397	2.366	.966	

One way Anova was used for evaluation

There was no significant relationship between fear of COVID-19 and use of supplements (*p*=.159). The relationship between fear of COVID-19 and use of supplements is shown in Table 4.33.

Table 4.33 COVID-19 Fear and Use of Food Supplements (Vitamin C,Vitamin D,Zinc,Omega-3,Beta-glucan)

	n	**Mean**	**SD**	**p**
Much lower	8	2.857	.995	.159
Lower	5	2.342	.696	
About the same	184	2.304	1.005	
Higher	159	2.340	.902	
Much higher	41	2.655	1.015	
Total	397	2.366	.966	

One way Anova was used for evaluation

A significant relationship was found between the fear of COVID-19 and water intake (*p*=.037). According to the Tukey test, the COVID-19 fear of the participants in the "b" group (*X*=3.044) is higher than those in the "a" group (*X*=2.271). The relationship between fear of COVID-19 and water consumption in individuals with healthy eating attitudes is shown in Table 4.34

Table 4.34 Healthy Eating Attıtude and Water Intake

	N	**Mean**	**SD**	**p**
Much lower	**5**	**2.657**	**.842**	.037
Lower	**28**	**2.469**	**.913**	
About the same [a]	**233**	**2.271**	**.935**	
Higher	**86**	**2.431**	**.890**	
Much higher[b]	**13**	**3.044**	**1.360**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and fresh/dried fruit consumption (*p*=.103). The relationship between fear of COVID-19 and fresh/dried fruit consumption in individuals with healthy eating attitudes is shown in Table 4.35.

Table 4.35 Healthy Eating and Fresh/Dried Fruit Consumption

	n	**Mean**	**SD**	**p**
Much lower+lower	**15**	**2.419**	**.702**	.103
About the same	**230**	**2.291**	**.961**	
Higher	**106**	**2.419**	**.884**	
Much higher	**14**	**2.898**	**1.260**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low .A significant relationship was found between the fear of COVID-19 and vegetable consumption (*p*=.014). According to the Games-Howell test, the COVID-19 fear of the participants in the "a" group (*X*=2.752) is higher than those in the "b" group (*X*=2.272). The relationship between fear of covid-19 and vegetable consumption in individuals with healthy eating attitudes is shown in Table 4.36.

Table 4.36 Healthy Eating Attitude and Vegetable Consumption

	N	Mean	SD	P
Much lower+lower [a]	**15**	**2.752**	**.522**	
About the same [b]	**257**	**2.272**	**.955**	.014
Higher	**75**	**2.445**	**.887**	
Much higher	**18**	**2.865**	**1.135**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

. Those who marked the options "much lower" and "lower" and "much higher" and "higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and legumes consumption (x^2 =7.001;p=.055) . The relationship between fear of COVID-19 and legumes consumption in individuals with healthy eating attitudes is shown in Table 4.37.

Table 4.37 Healthy Eating Attitude and Legumes Consumption

	n	Mean rank	x^2	Df	P
Much lower +lower	18	225.19	7.001	2	.055
About the same	302	176.46			
Higher+much higher	45	210.00			
Total	365				

Kruskal-wallis test was used for evaluation

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. A significant relationship was found

between the fear of COVID-19 and whole grain consumption (*p*=.031) According to the Tukey test, the COVID-19 fear of the participants in the “b” group (*X*=3.214) is higher than those in the “a” group (*X*=2.301). The relationship between fear of covid-19 and whole grain consumption in individuals with healthy eating attitudes is shown in Table 4.38.

Table 4.38 Healthy Eating Attitude and Whole Grain Consumption

	N	**Mean**	**SD**	**p**
Much lower+lower	**21**	**2.315**	**.752**	.031
About the same[a]	**269**	**2.301**	**.944.**	
Higher	**67**	**2.490**	**933**	
Much higher[b]	**8**	**3.214**	**1.263**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation

Table 4.39 shows the relationship between fear of COVID-19 and dairy consumption in individuals with healthy eating attitudes. Those who marked the options "much lower” and "lower" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and dairy consumption (*p*=.793)

Table 4.39 Healthy Eating Attitude and Dairy Consumption

	n	**Mean**	**SD**	**p**
Much lower+lower	**18**	**2.174**	**1.008**	.793
About the same	**265**	**2.351**	**.967**	
Higher	**71**	**2.404**	**.839**	
Much higher	**11**	**2.480**	**1.128.**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and consumption (*p*=.098). The relationship between fear of COVID-19 and meat,chickhen,fish consumption in individuals with healthy eating attitudes is shown in Table 4.40.

Table 4.40 Healthy Eating Attitude and Meat,Chickhen,Fish Consumption

	n	**Mean**	**SD**	**p**
Much lower+lower	**18**	**2.444**	**1.046**	.098
About the same	**245**	**2.277**	**.947**	
Higher	**89**	**2.566**	**.851**	
Much higher	**13**	**2.307**	**1.293**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

There was no significant relationship between fear of COVID-19 and herbal tea consumption (*p*=.094). The relationship between fear of COVID-19 and herbal tea consumption in individuals with healthy eating attitudes is shown in Table 4.41.

Table 4.41 Healthy Eating Attitude and Consumption of Herbal Tea (Linden,green tea,sage etc.)

	n	**Mean**	**SD**	**P**
Much lower	**9**	**1.968**	**.775**	.094
Lower	**11**	**2.467**	**1.034**	
About the same	**224**	**2.288**	**.941**	
Higher	**104**	**2.449**	**.904**	
Much higher	**17**	**2.823**	**1.185**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and nut consumption (p=.133). The relationship between fear of COVID-19 and nut consumption in individuals with healthy eating attitudes is shown in Table 4.42

Table 4.42 Healthy Eating Attitude and Nut Consumption

	n	Mean	SD	P
Much lower+lower	**9**	**2.920**	**.670**	.133
About the same	**248**	**2.294**	**.966**	
Higher	**96**	**2.436**	**.859**	
Much higher	**12**	**2.583**	**1.274**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

There was no significant relationship between fear of COVID-19 and processed meat consumption (F=1.881;p=.113). The relationship between fear of COVID-19 and processed meat consumption in individuals with healthy eating attitudes is shown in Table 4.43

Table 4.43 Healthy Eating Attitude and Processed Meat Consumption (Bacon,salami,sausage,smoked meat)

	N	Mean	SD	p
Much lower	**16**	**2.464**	**.928**	.113
Lower	**63**	**2.532**	**.942**	
About the same	**245**	**2.272**	**.923**	
Higher	**35**	**2.477**	**.948**	
Much higher	**6**	**2.976**	**1.676**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

A significant relationship was found between the fear of COVID-19 and packaged food consumption(*p*=.031). According to the Tukey test, the COVID-19 fear of the participants in the "d" group (*X*=2.392) is higher than those in the "a" (*X*=2.359) , "b"(*X*=2.299) and "c" (*X*=2.363) group. The relationship between fear of COVID-19 and packaged food consumption in individuals with healthy eating attitudes is shown in Table 4.44.

Table 4.44 Healthy Eating Attitude and Packaged Food Consumption (Candy,chocolate,biscuit,cracker,chips etc.)

	N	Mean	SD	P
Much lower	**14**	**2.500**	**.692**	
Lower[a]	**74**	**2.359**	**.910**	.031
About the same [b]	**190**	**2.299**	**.971**	
Higher[c]	**79**	**2.363**	**.871**	
Much higher[d]	**8**	**2.392**	**1.371**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

There was no significant relationship between fear of COVID-19 and homemade pastry consumption (*F*=2.336; *p*=.055) The relationship between fear of COVID-19 and homemade pastry consumption in individuals with healthy eating attitudes is shown in Table 4.45

Table 4.45 Healthy Eating Attitude and Homemade Pastry Consumption (Cake,cookie,pastry etc.)

	N	Mean	SD	P
Much lower	**7**	**2.387**	**.811**	.055
Lower	**41**	**2.466**	**1.008**	
About the same	**181**	**2.217**	**.930**	
Higher	**122**	**2.477**	**.911**	
Much higher	**14**	**2.775**	**1.170**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

There was no significant relationship between fear of COVID-19 and fastfood consumption (*p*=.090). The relationship between fear of COVID-19 and fastfood consumption in individuals with healthy eating attitudes is shown in Table 4.46.

Table 4.46 Healthy Eating Attitude and Fast-food Consumption

	N	Mean	SD	p
Much lower	**37**	**2.610**	**.950**	.090
Lower	**88**	**2.491**	**.894**	
About the same	**182**	**2.226**	**.982.**	
Higher	**48**	**2.398**	**805**	
Much higher	**103**	**2.414**	**1.188**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

A significant relationship was found between the fear of COVID-19 and non-alcoholic sugary drinks consumption (*p*=.001). According to the Tukey test, the COVID-19 fear of the participants in the "c" group (X=3.174) higher than "b" group (X=2.252) ; "a"group (X=2.837) higher than "b" group (X=2.252) . The relationship between fear of

COVID-19 and non-alcoholic sugary drinks consumption in individuals with healthy eating attitudes is shown in Table 4.47.

Table 4.47 Healthy Eating Attitude and Non-Alcoholıc Sugary Drınks (Instant fruit juıces,sugary carbonated drinks)

	N	Mean	SD	p
Much lower [a]	**36**	**2.837**	**.918**	
Lower	**52**	**2.291**	**.948**	.001
About the same[b]	**237**	**2.252**	**.901**	
Higher	**31**	**2.470**	**.927**	
Much higher[c]	**9**	**3.174**	**1.451**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and breakfast frequency (*p*=.242). The relationship between fear of COVID-19 and breakfast frequency in individuals with healthy eating attitudes is shown in Table 4.48.

Table 4.48 Healthy Eating Attitude and Breakfast Frequency

	N	Mean	SD	p
Much lower+ lower	**27**	**2.433**	**.955**	
About the same	**249**	**2.292**	**.940.**	.242
Higher	**79**	**2.493**	**948**	
Much higher	**10**	**2.685**	**1.070**	
Total	**365**	**2.356.**	**.948**	

One way Anova was used for evaluation.

No one selected "higher" and "much higher" options among the participants. There was no significant relationship between fear of COVID-19 and lunch frequency (X^2 = 4.286; p=.117). The relationship between fear of COVID-19 and lunch frequency in individuals with healthy eating attitudes is shown in Table 4.49.

Table 4.49 Healthy Eating Attitude and Lunch Frequency

	N	Mean rank	x²	Df	p
Much lower	50	181.23	4.286	2	.117
Lower	279	178.88			
About the same	36	217.42			
Total	365				

Kruskal Wallis used for evaluation.

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and dinner frequency (X^2= 6.095 ;p=.107). The relationship between fear of COVID-19 and dinner frequency in individuals with healthy eating attitudes is shown in Table 4.50.

Table 4.50 Healthy Eating Attitude and Dinner Frequency

	N	Mean rank	x^2	Df	P
Much lower +lower	8	217.81	6.095	3	.107
About the same	304	117.64			
Higher	48	203.13			
Much higher	5	260.10			
Total	365				

Kruskal Wallis was used for evaluation.

Those who marked the options "much higher" and "higher " were grouped together in one group because the number of them was low. A significant relationship was found between the fear of COVID-19 and eating snack *(p*=.006).Acoording to the Tukey test ; COVID-19 fear of the participants in the "a" group (*X*=2.941) higher than "b" group (*X*=2.249). The relationship between fear of COVID-19 and eating snack in individuals with healthy eating attitudes is shown in Table 4.51.

Table 4.51 Healthy Eating Attitude and Eating Snack

	n	Mean	SD	p
Much lower[a]	**17**	**2.941**	**1.122**	.006
Lower	**30**	**2.500**	**.860**	
About the same[b]	**244**	**2.249**	**.921**	
Higher+much higher	**74**	**2.519**	**.965**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

Those who marked the options "much higher" and "higher " were grouped together in one group because the number of them was low. A significant relationship was found between the fear of COVID-19 and number of meals *(p*=.001).Acoording to the Tukey test ; COVID-19 fear of the participants in the "a" group (*X*=3.881) higher than "b" (*X*=2.369) , "c" (*X*=2.317) and "d" group (*X*=2.361). The relationship between fear of COVID-19 and number of meals in individuals with healthy eating attitudes is shown in Table 4.52.

Table 4.52 Healthy Eating Attitude and Number of Meals per Day

	n	**Mean**	**SD**	**p**
Much lower[a]	**6**	**3.881**	**.912**	.001
Lower [b]	**34**	**2.369**	**.972**	
About the same [c]	**250**	**2.317**	**.819**	
Much higher+higher [d]	**75**	**2.361**	**1.272**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and supplement use (*p*=.155). The relationship between fear of COVID-19 and supplement use in individuals with healthy eating attitudes is shown in Table 4.53.

Table 4.53 Healthy Eating Attitude and Supplement Use

	n	X	sd	p
Much lower+lower	**9**	**2.619**	**.416**	
About the same	**174**	**2.293**	**.988**	.155
Higher	**146**	**2.340**	**.882**	
Much higher	**36**	**2.662**	**1.059**	
Total	**365**	**2.356**	**.948**	

One way Anova was used for evaluation.

Table 4.54 shows the relationship between fear of COVID-19 and water intake in individuals with impaired eaintg attitude. Those who marked "lower" and "very lower" were not included in the analysis because they were few in number. There was no significant relationship between fear of COVID-19 and water intake (F=4.50; p=.642)

Table 4.54 Impaired Eating Attitude and Water Intake

	N	Mean	SD	p
About the same	**19**	**2.518**	**1.009**	
Higher	**5**	**3.000**	**1.425**	.642
Much higher	**6**	**2.357**	**1.221**	
Total	**31**	**2.566**	**1.153**	

One way Anova was used for evaluation.

Those who marked "higher" and "much higher" were not included in the analysis because they were few in number. There was no significant relationship between fear of COVID-19 and fresh/dried fruit consumption (p=.781). The relationship between fear of COVID-19 and fresh/dried fruit consumption in individuals with impaired eating attitude is shown in Table 4.55.

Table 4.55 Impaired Eating Behaviour and Fresh/Dried Fruit Consumption

	n	Mean	SD	p
Much lower+lower	**19**	**2.526**	**1.198**	.781
About the same	**13**	**2.406**	**1.172**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and vegetable consumption (*p*=.167). The relationship between fear of COVID-19 and vegetable consumption in individuals with impaired eaintg attitude is shown in Table 4.56.

Table 4.56 Impaired Eating Behaviour and Vegetable Consumption

	n	Mean	SD	p
Much lower+lower	**5**	**3.342**	**1.589**	.167
About the same	**17**	**2.420**	**1.178**	
Higher+much higher	**103**	**2.142**	**.758**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low. There was no significant relationship between fear of COVID-19 and legume consumption (*p*=.053). The relationship between fear of COVID-19 and legume consumption in individuals with impaired eaintg attitude is shown in Table 4.57.

Table 4.57 Impaired Eating Behaviour and Legume Consumption

	n	Mean	SD	p
Much lower+lower	**3**	**4.000**	**1.030**	
About the same	**24**	**2.291**	**1.133**	.053
Higher+much higher	**5**	**2.457**	**.865**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low. A significant relationship was found between the fear of COVID-19 and whole grain consumption (*p*=.007).Acoording to the Tukey test ; COVID-19 fear of the participants in the "a" group (*X*=4.035) higher than "b" group (*X*=2.120). The relationship between fear of COVID-19 and whole grain consumption in individuals with impaired eaintg attitude is shown in Table 4.58.

Table 4.58 Impaired Eating Behaviour and Whole grain Consumption

	N	Mean	SD	p
Much lower+lower[a]	**4**	**4.035**	**.844**	
About the same[b]	**19**	**2.120**	**1.033**	.007
Higher+much higher	**9**	**2.539**	**1.054**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and dairy consumption (*p*=.491). The relationship between fear of COVID-19 and dairy consumption in individuals with impaired eaintg attitude is shown in Table 4.59.

Table 4.59 Impaired Eating Behaviour and Dairy Consumption

	n	Mean	SD	p
Much lower+lower	**3**	**2.428**	**.428**	.491
About the same	**21**	**2.319**	**1.156**	
Higher+much higher	**8**	**2.910**	**1.376**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and meat consumption(*p*=.707). The relationship between fear of COVID-19 and meat,chichkhen,fish consumption in individuals with impaired eaintg attitude is shown in Table 4.60.

Table 4.60 Impaired Eating Behaviour and Meat,Chickhen,Fish Consumption

	n	Mean	SD	p
Much lower+lower	**5**	**2.857**	**1.548**	.707
About the same	**18**	**2.460**	**1.136**	
Higher+much higher	**9**	**2.301**	**1.112**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and herbal tea consumption (*F*=.373; *p*=.692). The relationship between fear of COVID-19 and herbal tea consumption in individuals with impaired eating attitude is shown in Table 4.61.

Table 4.61 Impaired Eating Behaviour and Herbal Tea Consumption (Linden,green tea,sage etc.)

	n	Mean	SD	p
Much lower+lower	**11**	**2.324**	**1.030**	.692
About the same	**8**	**2.785**	**1.557**	
Higher+much higher	**13**	**2.417**	**1.071**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and nut consumption (*F*=.022; *p*=.978). The relationship between fear of COVID-19 and nut consumption in individuals with impaired eating attitude is shown in Table 4.62.

Table 4.62 Impaired Eating Attıtude and Nuts(Hazelnuts,walnuts,almonds,peanuts etc.) Consumption

	n	Mean	SD	p
Much lower+lower	**4**	**2.571**	**1.304**	.978
About the same	**19**	**2.443**	**1.227**	
Higher+much higher	**9**	**2.507**	**1.125**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and processed meat consumption (*F*=.476; *p*=.610). The relationship between fear of COVID-19 and processed meat consumption in individuals with impaired eating attitude is shown in Table 4.63.

Table 4.63 Impaired Eating Attıtude and Processed Meat Consumption (Bacon,salami,sausage and smoked meat)

	n	Mean	SD	p
Much lower+lower	**11**	**2.753**	**1.164**	.626
About the same	**15**	**2.371**	**1.098**	
Higher+much higher	**6**	**2.238**	**1.458**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Table 4.64 shows the relationship between fear of COVID-19 and processed meat consumption in individuals with impaired eating attitude .Among the options, there was no one who marked the "higher" and "much higher" options. There was no significant relationship between fear of COVID-19 and processed meat consumption (*F*=.254 ;*p*=.777)

Table 4.64 Impaired Eating Attıtude and Packaged Food Consumption (Candy,chocolate,biscuits,cracker,chips etc.)

	N	Mean	SD	p
Much lower	**15**	**2.419**	**1.007**	.777
Lower	**12**	**2.404**	**1.290**	
About the same	**5**	**2.828**	**1.513**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and homemade pastry consumption (*F*=.271; *p*=.764). The relationship between fear of COVID-19 and

homemade pastry consumption in individuals with impaired eating attitude is shown in Table 4.65.

Table 4.65 Impaired Eating Attıtude and Homemade Pastry Consumption (Cake,cookie,pastry etc.)

	n	Mean	SD	P
Much lower+lower	**6**	**2.761**	**1.844**	.764
About the same	**12**	**2.321**	**1.015**	
Higher+much higher	**14**	**2.489**	**1.011**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Among the options, there was no one who marked th "higher" and "much higher" options. There was no significant relationship between fear of COVID-19 and fastfood consumption (F=.392; p =.679). The relationship between fear of COVID-19 and fastfood consumption in individuals with impaired eating attitude is shown in Table 4.66.

Table 4.66 Impaired Eating Attıtude and Fastfood Consumption

	n	Mean	SD	p
Much lower	**15**	**2.323**	**1.072**	.679
Lower	**9**	**2.460**	**1.261**	
About the same	**8**	**2.785**	**1.335**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low

.There was no significant relationship between fear of COVID-19 and processed non-alcoholic sugary drink consumption (*p*=.399). The relationship between fear of COVID-19 and non-alcoholic sugary drink consumption in individuals with impaired eating attitude is shown in Table 4.67.

Table 4.67 Impaired Eating Attıtude and Non-Alcoholic Sugary Drink Consumption (Instant fruit juıces,sugary carbonated drinks)

	n	Mean	SD	p
Much lower+lower	**9**	**2.619**	**1.460**	.399
About the same	**16**	**2.633**	**1.135**	
Higher+much higher	**17**	**1.938**	**.755**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low .There was no significant relationship between fear of COVID-19 and breakfast frequency (*F*=.948; *p*=.399). The relationship between fear of COVID-19 and breakfast frequency in individuals with impaired eating attitude is shown in Table 4.68.

Table 4.68 Impaired Eating Attıtude and Breakfast Frequency

	n	Mean	SD	p
Much lower+lower	**9**	**2.619**	**1.460**	.399
About the same	**16**	**2.633**	**1.135**	
Higher+much higher	**7**	**1.938**	**.755**	
Total	**32**	**2.477**	**2.477**	

One way Anova was used for evaluation.

Table 4.69 shows the relationship between fear of COVID-19 and lunch frequency in individuals with impaired eating attitude. Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low .There was no significant relationship between fear of COVID-19 and lunch frequency (*p*=.972)

Table 4.69 Impaired Eating Attıtude and Lunch Frequency

	N	**Mean**	**SD**	**p**
Much lower+lower	**5**	**2.400**	**1.412**	.972
About the same	**19**	**2.518**	**1.183**	
Higher+much higher	**8**	**2.428**	**1.142**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Among the options, there was no one who marked the "higher" and "much higher" options. There was no significant relationship between fear of COVID-19 and dinner frequency (*F* =2.785;*p* =.106). The relationship between fear of COVID-19 and dinner frequency in individuals with impaired eating attitude is shown in Table 4.70

Table 4.70 Impaired Eating Attıtude and Dinner Frequency

	n	**Mean**	**SD**	**p**
About the same	**22**	**2.733**	**1.219**	.106
Higher+much higher	**9**	**1.984**	**.876**	
Total	**31**	**2.516**	**1.168**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low

.There was no significant relationship between fear of COVID-19 and eating snack (*p*=.615). The relationship between fear of COVID-19 and eating snack in individuals with impaired eating attitude is shown in Table 4.71

Table 4.71 Impaired Eating Attıtude and Eating Snack

	n	**Mean**	**SD**	**p**
Much lower+lower	**8**	**2.839**	**1.447**	.615
About the same	**16**	**2.366**	**1.203**	
Higher+much higher	**8**	**2.339**	**.815**	
Total	**3**	**2.477**	**1.169**	

One way Anova was used for evaluation.

.Among the options, there was no one who marked the "much higher" options. Those who marked the options "much lower" and "lower" were grouped together in one group because the number of them was low There was no significant relationship between fear of COVID-19 and number of meals per day. The relationship between fear of COVID-19 and number of meals per day in individuals with impaired eating attitude is shown in Table 4.72.

Table 4.72 Impaired Eating Attıtude and Number of Meals Per Day

	N	**Mean**	**SD**	**p**
Much lower+lower	**4**	**2.107**	**1.420**	.511
About the same	**22**	**2.642**	**1.236**	
Higher	**6**	**2.119**	**.684**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

Those who marked the options "much lower" and "lower" and "higher" and "much higher" were grouped together in one group because the number of them was low .There was no significant relationship between fear of COVID-19 and supplement use (p=.880). The relationship between fear of COVID-19 and supplement use in individuals with impaired eating attitude is shown in Table 4.73.

Table 4.73 Impaired Eating Attıtude and Supplement Use

	N	**Mean**	**SD**	**p**
Much lower+lower	**4**	**2.750**	**1.659**	.880
About the same	**10**	**2.485**	**1.321**	
Higher+much higher	**18**	**2.412**	**1.031**	
Total	**32**	**2.477**	**1.169**	

One way Anova was used for evaluation.

5.DISCUSSION

5.1 Lifestyle Changes

86.9% of the participants are not currently working or studying from home, but 67% of them worked or studied from home during the pandemic. This may be due to the fact that this study was carried out 1.5 years after the start of the pandemic and the quarantine measures were relaxed in this process.

According to the results of this study; 44.3% of the participants gained weight during the pandemic period. According to the results of the study, the physical activity levels of the participants decreased during this period, their sleep quality decreased,the time they spent in front of the screen increased and eating habits change Weight gain may be due to these lifestyle changes during the pandemic.

During this period, there were changes in the level of physical activity and eating habits. In a systematic review that included 66 studies and 86,981 participants, it was observed that physical activity levels decreased during the pandemic period in 64 studies [19]. However, in this review; It has been observed that the physical activity levels of individuals with eating disorders increase. In this study, since individuals with healthy eating attitudes were predominant, a decrease in physical activity level may have been observed. In this study, it was also seen that the time spent in front of the screen increased, which may be related to a decrease in physical activity.There have been some studies investigating sleep quality during the pandemic period. In a study involving 54,231 participants from 13 countries, sleep disorders were found to be 32% in the general population however higher rate in healtcare workers, and similarly, this rate was 31% in another meta-analysis [123,124] In a study with 5,175 participants, 53.9% of the participants stated that their sleep duration changed, 17.1% slept less, 36.7% slept more. [125]Similarly, in this study, it was observed that the sleep duration of the participants increased because this study was conducted with the general population. In this study, it was observed that the frequency of online shopping increased during the pandemic process. This may be due to both the quarantine measures and the fear of the contagion of the disease. In a study conducted by the United Nations, including Turkey, 22% of the participants said that they only shop online now, and 36% said that they prefer online shopping over physical shopping.[126] Interestingly, the participants said that their

rate of disinfecting food and beverage bags was higher before the pandemic, but this may be due to the inconsistent answers of the participants.

5.2 Weight Change

The relationship between the fear of COVID-19 and gender, educational status, smoking and weight change was examined. It was observed that fear of COVID-19 was only associated with weight change during the pandemic period. Fear of COVID-19 was higher in the group that gained weight compared to the group whose weight did not change. It is known that anxiety and depression can cause weight gain. In a study involving 3473 participants in the USA, it was observed that weight gain was higher in qcases of anxiety and depression during the pandemic period [127]

The relationship between eating attitude and gender, BMI, and weight change in the pandemic was examined. A significant relationship was found only between weight change in the pandemic and eating attitude. It was observed that the susceptibility to eating disorders was higher in the weight loss group, and healthy individuals were more in the group whose weight did not change. This situation may be related to the fact that individuals with disordered eating attitudes may be more dissatisfied with their bodies and accordingly lose weight [128]

5.3 Eating Habits Change

The effect of fear of COVID-19 on nutrition in the general population, in individuals with healthy eating behaviors and in people who are prone to eating disorders was examined. Water consumption, fruit consumption, vegetable consumption, legumes consumption, whole grain consumption, dairy products consumption, meat, chicken, fish consumption, herbal tea consumption, nut consumption, processed meat consumption, packaged food consumption, home-made pastry consumption, fast-food consumption, consumption of sugary drinks, frequency of breakfast, frequency of eating lunch, frequency of eating dinner, frequency of snacking, total number of meals per day and the use of supplements were investigated.

In the general population, a significant relationship was found between fear of covid-19 and vegetable consumption, legumes consumption, packaged food consumption, sugary beverage consumption, frequency of snacks, and number of daily meals.

It was observed that the fear of COVID-19 was higher in the group whose vegetable consumption decreased than whose vegetable consumption did not change much. This may be due to the difficulty of accessing fresh vegetables due to the risk of contamination. It is known that Sars-CoV-2 virus can survive between 3 hours and 72 hours on various surfaces.[129] A study conducted on 3533 people in Italy showed that

grocery shopping decreased in this process [15] Similarly, other studies have shown that vegetable consumption decreased during the pandemic period.[130,131] This decrease in vegetable consumption may also be related to the increase in packaged food consumption.

When the legume consumption in this process was examined, it was seen that the group whose legume consumption much lower had more fear of COVID-19 than the group whose consumption lower, about the same and higher This may be associated with the time it takes to prepare these legume products because of overnight soaking [132]

When packaged food consumption is examined, it is seen that the group whose consumption is much higher has more fear of COVID-19 than the group whose consumption has higher, about the same, lower and much lower. This may be due to the difficulty of accessing fresh food during the pandemic period and the increase in packaged food consumption. In a study conducted in Italy during the pandemic period, it was shown that consumption for fresh food decreased and packaged food consumption increased during this period [15] Packaged foods usually have a high sugar content, while high-sugar foods have been shown in studies to increase the release of serotonin [133] Increasing time spent in front of the screen and coping with anxiety and stress may be the reasons for the increase in packaged food consumption [134,135]

When the consumption of sugary drinks is examined, the group whose consumption of sugary drinks increased a lot has more fear of COVID-19 than the group that did not change. In addition, the group whose consumption of sugary drinks decreased much had more fear of COVID-19 than the group that did not change. In a study conducted in the USA, it was found that mental health problems are 26% more common in individuals who consume sugary drinks compared to those who do not. The high fear of COVID-19 in individuals with increased consumption of sugary drinks may be associated with increased anxiety in these individuals [136]

When the frequency of snacks is examined, individuals whose frequency of snacking decreases very much have more fear of COVID-19 than individuals whose frequency of snacks does not change. Similarly, in a study examining the effect of fear of COVID-19 on eating habits in Turkey, it was observed that fear and anxiety reduced the frequency of snacks [122] This change may be related to the increase in sleep duration and stress level due to fear of COVID-19.

Considering the relationship between the total number of meals per day and the fear of COVID-19; It has been observed that individuals with a very decreased number of meals have more fear of COVID-19 than individuals whose number of meals decreases,

does not change, increases or increases too much. Stress and anxiety can affect the type and amount of food consumed by individuals. It is known that while 35-60% of individuals consume more energy during stress, 25-40% eat less [137,138]

In the analysis made with individuals with healthy eating behavior, it was seen that the fear of COVID-19 was associated with water consumption, vegetable consumption, whole grain consumption, packaged food consumption, sugary beverage consumption, snacking, and the number of meals per day.

The group whose water consumption increased a lot during the pandemic period has more fear of COVID-19 than the group whose water consumption did not change. Adequate water consumption is the basis of healthy nutrition and immunity, individuals with high fear of COVID-19 may have increased these habits [97]

Similar to the previous analysis, it is seen that the group whose vegetable consumption decreased and decreased a lot had more fear of COVID-19 than the group whose vegetable consumption did not change. This situation may similarly be associated with the risk of contamination.[129]

Unlike the general population, in this group, the group whose whole grain consumption increased a lot was seen to have more fear of COVID-19 than the group that did not change. Studies have shown that the mortality and severity of COVID-19 is higher in chronic conditions such as hypertension, cancer, obesity, chronic liver diseases, chronic obstructive pulmonary diseases.[139] In a prospective study conducted on 367,442 people, it was observed that consumption of whole grains and fiber decreased the death rate due to diseases such as cancer, diabetes, respiratory diseases, cardiovascular diseases and infections.[140] It can be thought that people with a high fear of COVID-19 increase their consumption of whole grain due to its health benefits and prevention of chronic diseases.

In packaged food consumption, similar to the general population, it was seen that the group whose consumption increased a lot had more fear of COVID-19 than the group whose consumption increased, did not change and decreased. Similarly, this situation may be related to anxiety and increased time spent in front of the screen [135,141134]

When the consumption of sugary drinks is examined, the group whose consumption of sugary drinks increased a lot has more fear of COVID-19 than the group that did not change. In addition, the group whose consumption of sugary drinks decreased much had more fear of COVID-19 than the group that did not change. Similar to the previous analysis, this may be related to increased anxiety and preference for sugary foods [136]

Similar to the other analysis in the frequency of snacks, individuals whose frequency is very low have more fear of COVID-19 than those whose frequency does not change. The results are similar in the number of total meals per day. It is seen that the group whose number of meals is very reduced has more fear of COVID-19 than the group whose number of meals decreases, does not change, increases or increases a lot. This situation may be related to the effect of stress and anxiety on the number of snacks and meals, similar to the previous results [122,137,138]

When individuals with impaired eating behavior were examined, a significant difference was observed only in whole grain consumption. This difference, unlike other groups, is that the group whose consumption of whole grains decreased or decreased a lot had more fear of COVID-19 than the group that did not change. Whole grains are a source of carbohydrates, a low-carb diet is used to achieve weight loss. Individuals with poor eating attitudes may reduce their consumption of carbohydrates, so whole grain consumption may be reduced [142]

6.CONCLUSION

Quarantine measures, distance education and working processes in the COVID-19 period also caused many changes in lifestyle. Similar to previous studies, we saw that sleep duration, sleep quality, weight status, shopping preferences changed in this study.

Studies have shown that psychiatric disorders such as anxiety and depression increased during this period. At the same time, the symptoms of individuals with eating disorders were exacerbated, and individuals with healthy eating behaviors showed disordered eating behaviors. However, the number of studies examining the effect of fear of COVID-19 on eating behavior is very few.

There was no significant effect of fear of COVID-19 on the eating behaviors of individuals who are prone to eating disorders, except for whole grain consumption. This may possibly be related to the low sample size.

However, it has been observed that the fear of COVID-19 has a significant effect on eating behavior in individuals with healthy eating behavior. As the fear of COVID-19 increased in these individuals, water consumption, whole grain consumption, packaged food consumption and sugary beverage consumption increased. However, it was observed that vegetable consumption, frequency of snacks and number of daily meals decreased.

In order to examine the effect of fear of COVID-19 on eating habits, more studies are needed on two different samples with healthy and unhealthy eating attitudes.

7.REFERENCES

1. Wang W, Xu Y, Gao R, et al. Detection of SARS-CoV-2 in Different Types of Clinical Specimens. *JAMA*. 2020;323(18):1843-1844. doi:10.1001/JAMA.2020.3786

2. WHO. Situation Report-56. Published online 2020. Accessed November 29, 2021. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200316-sitrep-56-covid-19.pdf?sfvrsn=9fda7db2_6

3. BBC. Wuhan lockdown: A year of China's fight against the Covid pandemic - BBC News. Accessed November 29, 2021. https://www.bbc.com/news/world-asia-china-55628488

4. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. Published March 11, 2020. Accessed November 29, 2021. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

5. Ammar A, Brach M, Trabelsi K, et al. Effects of COVID-19 home confinement on eating behaviour and physical activity: Results of the ECLB-COVID19 international online survey. *Nutrients*. 2020;12(6). doi:10.3390/nu12061583

6. Wu T, Jia X, Shi H, et al. Prevalence of mental health problems during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of Affective Disorders*. 2021;281:91-98. doi:10.1016/j.jad.2020.11.117

7. Xiong J, Lipsitz O, Nasri F, et al. Impact of COVID-19 pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders*. 2020;277:55-64. doi:10.1016/j.jad.2020.08.001

8. Tracey J Devonport1 WN and CF. A systematic review of the association between emotions and eating behaviour in normal and overweight adult populations. Published online 2019. doi:10.1177/1359105317697813

9. Taquet M, Geddes JR, Luciano S, Harrison PJ. Incidence and outcomes of eating disorders during the COVID-19 pandemic. doi:10.1192/bjp

10. Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*. 2020;395(10229):1054-1062. doi:10.1016/S0140-6736(20)30566-3

11. Jimenez A, de Hollanda A, Palou E, et al. Psychosocial, Lifestyle, and Body Weight Impact of COVID-19-Related Lockdown in a Sample of Participants with Current or Past History of Obesity in Spain. *Obesity Surgery*. 2021;31(5):2115-2124. doi:10.1007/s11695-021-05225-z

12. Mofijur M, Fattah IMR, Alam MA, et al. Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic. *Sustainable Production and Consumption*. 2021;26:343-359. doi:10.1016/j.spc.2020.10.016

13. Rosenberger LH, Riccio LM, Campbell KT, Politano AD, Sawyer RG. Quarantine, isolation, and cohorting: From cholera to Klebsiella. *Surgical Infections*. 2012;13(2):69-73. doi:10.1089/sur.2011.067

14. WHO/Europe | Food and nutrition during self-quarantine: what to choose and how to eat healthily. Accessed November 29, 2021. https://www.euro.who.int/en/health-topics/disease-prevention/nutrition/news/news/2020/3/food-and-nutrition-during-self-quarantine-what-to-choose-and-how-to-eat-healthily

15. di Renzo L, Gualtieri P, Pivari F, et al. Eating habits and lifestyle changes during COVID-19 lockdown: An Italian survey. *Journal of Translational Medicine*. 2020;18(1). doi:10.1186/s12967-020-02399-5

16. Deschasaux-Tanguy M, Druesne-Pecollo N, Esseddik Y, et al. Diet and physical activity during the coronavirus disease 2019 (COVID-19) lockdown (March-May 2020): Results from the French NutriNet-Santé cohort study. *American Journal of Clinical Nutrition*. 2021;113(4):924-938. doi:10.1093/ajcn/nqaa336

17. Barbisch D, Koenig KL, Shih FY. Is There a Case for Quarantine? Perspectives from SARS to Ebola. *Disaster Medicine and Public Health Preparedness*. 2015;9(5):547-553. doi:10.1017/dmp.2015.38

18. González-Monroy C, Gómez-Gómez I, Olarte-Sánchez CM, Motrico E. Eating Behaviour Changes during the COVID-19 Pandemic: A Systematic Review of Longitudinal Studies. *International Journal of Environmental Research and Public Health*. 2021;18(21). doi:10.3390/IJERPH182111130

19. Stockwell S, Trott M, Tully M, et al. Changes in physical activity and sedentary behaviours from before to during the COVID-19 pandemic lockdown: A systematic review. *BMJ Open Sport and Exercise Medicine*. 2021;7(1). doi:10.1136/bmjsem-2020-000960

20. Lachat C, Nago E, Verstraeten R, Roberfroid D, van Camp J, Kolsteren P. Eating out of home and its association with dietary intake: A systematic review of the evidence. *Obesity Reviews*. 2012;13(4):329-346. doi:10.1111/j.1467-789X.2011.00953.x

21. Al-Domi H, AL-Dalaeen A, AL-Rosan S, Batarseh N, Nawaiseh H. Healthy nutritional behavior during COVID-19 lockdown: A cross-sectional study. *Clinical Nutrition ESPEN*. 2021;42:132-137. doi:10.1016/j.clnesp.2021.02.003

22. Wolfson JA, Bleich SN. Is cooking at home associated with better diet quality or weight-loss intention? *Public Health Nutrition*. 2015;18(8):1397-1406. doi:10.1017/S1368980014001943

23. Wolfson JA, Leung CW, Richardson CR. More frequent cooking at home is associated with higher Healthy Eating Index-2015 score. *Public Health Nutrition*. 2020;23(13):2384-2394. doi:10.1017/S1368980019003549

24. Mills S, Brown H, Wrieden W, White M, Adams J. Frequency of eating home cooked meals and potential benefits for diet and health: Cross-sectional analysis of a population-based cohort study. *International Journal of Behavioral Nutrition and Physical Activity*. 2017;14(1). doi:10.1186/s12966-017-0567-y

25. Clifford Astbury C, Penney TL, Adams J. Comparison of individuals with low versus high consumption of home-prepared food in a group with universally high dietary quality: a cross-sectional analysis of the UK National Diet & Nutrition Survey (2008-2016). *Int J Behav Nutr Phys Act*. 2019;16(1):9. doi:10.1186/s12966-019-0768-7

26. Ismail LC, Osaili TM, Mohamad MN, et al. Eating habits and lifestyle during covid-19 lockdown in the united arab emirates: A cross-sectional study. *Nutrients*. 2020;12(11):1-20. doi:10.3390/nu12113314

27. Bazzani A, Marantonio S, Andreozzi G, et al. Late chronotypes, late mealtimes. Chrononutrition and sleep habits during the COVID-19 lockdown in Italy. *Appetite*. 2022;172. doi:10.1016/J.APPET.2022.105951

28. Lamarche B, Brassard D, Lapointe A, et al. Changes in diet quality and food security among adults during the COVID-19-related early lockdown: Results from NutriQuébec. *American Journal of Clinical Nutrition*. 2021;113(4):984-992. doi:10.1093/ajcn/nqaa363

29. Grant F, Scalvedi ML, Scognamiglio U, Turrini A, Rossi L. Eating Habits during the COVID-19 Lockdown in Italy: The Nutritional and Lifestyle Side Effects of the Pandemic. *Nutrients*. 2021;13(7). doi:10.3390/NU13072279

30. Lippi G, Henry BM, Sanchis-Gomar F. Physical inactivity and cardiovascular disease at the time of coronavirus disease 2019 (COVID-19). *European Journal of Preventive Cardiology*. 2020;27(9):906-908. doi:10.1177/2047487320916823

31. Santabárbara J, Lasheras I, Lipnicki DM, et al. Prevalence of anxiety in the COVID-19 pandemic: An updated meta-analysis of community-based studies. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*. 2021;109. doi:10.1016/j.pnpbp.2020.110207

32. Richter D, Riedel-Heller S, Zuercher S. Mental health problems in the general population during and after the first lockdown phase due to the SARS-Cov-2 pandemic: Rapid review of multi-wave studies. *Epidemiology and Psychiatric Sciences*. Published online 2021. doi:10.1017/S2045796021000160

33. Touyz S, Lacey H, Hay P. Eating disorders in the time of COVID-19. *Journal of Eating Disorders*. 2020;8(1):1-3. doi:10.1186/S40337-020-00295-3/METRICS

34. Todisco P, Donini LM. Eating disorders and obesity (ED&O) in the COVID-19 storm The COVID-19 storm. 2021;26:747-750. doi:10.1007/s40519-020-00938-z

35. Fernández-Aranda F, Casas M, Claes L, et al. COVID-19 and implications for eating disorders. *European Eating Disorders Review*. 2020;28(3):239-245. doi:10.1002/ERV.2738

36. Rodgers RF, Lombardo C, Cerolini S, et al. The impact of the COVID-19 pandemic on eating disorder risk and symptoms. *International Journal of Eating Disorders*. 2020;53(7):1166-1170. doi:10.1002/EAT.23318

37. Phillipou A, Rossell SL, Castle DJ. Anorexia nervosa or starvation? *Eur J Neurosci*. 2018;48(11):3317-3318. doi:10.1111/EJN.14158

38. Abukhaled JK, Alabdullah DW, Aleban SA, Almuqhim SA, El-Akabawy G, Assiri RA. Prevalence of eating disorders among Saudi female university students during the COVID-19 outbreak. *J Taibah Univ Med Sci*. Published online February 2022. doi:10.1016/J.JTUMED.2022.02.001

39. Termorshuizen JD, Watson HJ, Thornton LM, et al. Early Impact of COVID-19 on Individuals with Eating Disorders: A survey of ~1000 Individuals in the United States and the Netherlands. *medRxiv*. Published online June 8, 2020:2020.05.28.20116301. doi:10.1101/2020.05.28.20116301

40. Schlegl S, Meule A, Favreau M, Voderholzer U. Bulimia nervosa in times of the COVID-19 pandemic—Results from an online survey of former inpatients. *European Eating Disorders Review*. 2020;28(6):847-854. doi:10.1002/ERV.2773

41. Phillipou A, Meyer D, Neill E, et al. Eating and exercise behaviors in eating disorders and the general population during the COVID-19 pandemic in Australia: Initial results from the COLLATE project. Published online 2020. doi:10.1002/eat.23317

42. Sci-Hub | The impact of COVID-19 lockdown and of the following “re-opening” period on specific and general psychopathology in people with Eating Disorders: the emergent role of internalizing symptoms. Journal of Affective Disorders, 285, 77–83 | 10.1016/j.jad.2021.02.037. Accessed February 1, 2022. https://sci-hub.se/https://www.sciencedirect.com/science/article/abs/pii/S0165032721001634?via%3Dihub

43. American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.).DSM-V .

44. Advani S, Kochhar G, Chachra S, Dhawan P, Faculty S, Advisor A. Eating everything except food (PICA): A rare case report and review. 4(1). doi:10.4103/2231-0762.127851

45. Nasser Y al, Muco E, Alsaad AJ. Pica. *StatPearls*. Published online July 29, 2021. Accessed November 30, 2021. https://www.ncbi.nlm.nih.gov/books/NBK532242/

46. Khan Y, Tisman G. Pica in iron deficiency: a case series. Published online 2010. doi:10.1186/1752-1947-4-86

47. Singhi S, Singhi P, Adwani GB. Role of psychosocial stress in the cause of pica. *Clin Pediatr (Phila)*. 1981;20(12):783-785. doi:10.1177/000992288102001205

48. GRIVETTI LE. Social Determinants of Food Intake. *Ann N Y Acad Sci*. 1997;819(1 Nutritional I):121-131. Accessed November 30, 2021. https://www.academia.edu/15868329/Social_Determinants_of_Food_Intake

49. Grotegut CA, Dandolu V, Katari S, Whiteman VE, Geifman-Holtzman O, Teitelman M. Baking soda pica: a case of hypokalemic metabolic alkalosis and rhabdomyolysis in pregnancy. *Obstetrics and Gynecology*. 2006;107(2 Pt 2):484-486. doi:10.1097/01.AOG.0000203666.99256.ED

50. Leung AKC, Hon KL. Pica: A Common Condition that is Commonly Missed - An Update Review. *Current Pediatric Reviews*. 2019;15(3):164-169. doi:10.2174/1573396315666190313163530

51. Khosravi M. Pica behaviors in schizophrenia: a call for further research. *Journal of Eating Disorders*. 2021;9(1). doi:10.1186/S40337-021-00472-Y

52. Horner RD, Lackey CJ, Kolasa K, Warren K. Pica practices of pregnant women. *J Am Diet Assoc*. 1991;91(1):34-38. doi:10.1016/S0002-8223(21)01058-0

53. Fawcett EJ, Fawcett JM, Mazmanian D. A meta-analysis of the worldwide prevalence of pica during pregnancy and the postpartum period. *International Journal of Gynecology and Obstetrics*. 2016;133(3):277-283. doi:10.1016/j.ijgo.2015.10.012

54. Bogdanovic M, Alempijevic D, Curcic D, Durmic T. A Fatal Outcome of Pica Syndrome: An Unusual Case of Delayed Mortality. *American Journal of Forensic Medicine and Pathology*. 2018;39(3):261-263. doi:10.1097/PAF.0000000000000409

55. Hartmann AS, Becker AE, Hampton C, Bryant-Waugh R. Pica and Rumination Disorder in *DSM-5*. *Psychiatric Annals*. 2012;42(11):426-430. doi:10.3928/00485713-20121105-09

56. LasLgue. *CLASSICS IN OBESITY On Hysterical Anorexia (a).*; 1997. doi:10.1002/j.1550-8528.1997.tb00676.x

57. Sir William Gull B. Clinical Notes: MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL. ANOREXIA NERVOSA.

58. Zipfel S, Giel KE, Bulik CM, Hay P, Schmidt U. Anorexia nervosa: aetiology, assessment, and treatment. *The Lancet Psychiatry*. 2015;2(12):1099-1111. doi:10.1016/S2215-0366(15)00356-9

59. Zipfel S, Löwe B, Reas DL, Deter HC, Herzog W. Long-term prognosis in anorexia nervosa: lessons from a 21-year follow-up study. *The Lancet*. 2000;355(9205):721-722. doi:10.1016/S0140-6736(99)05363-5

60. Herpertz-Dahlmann B. Adolescent Eating Disorders: Update on Definitions, Symptomatology, Epidemiology, and Comorbidity. *Child and Adolescent Psychiatric Clinics of North America*. 2015;24(1):177-196. doi:10.1016/J.CHC.2014.08.003

61. Eeden AE van, Hoeken D van, Hoek HW. Incidence, prevalence and mortality of anorexia nervosa and bulimia nervosa. *Current Opinion in Psychiatry*. 2021;34(6):515. doi:10.1097/YCO.0000000000000739

62. Arcelus J, Mitchell AJ, Wales J, Nielsen S. *Mortality Rates in Patients With Anorexia Nervosa and Other Eating Disorders A Meta-Analysis of 36 Studies*. Vol 68.; 2011.

63. Treasure J, Duarte TA, Schmidt U. Eating disorders. *The Lancet*. 2020;395(10227):899-911. doi:10.1016/S0140-6736(20)30059-3

64. Blanchet C, Guillaume S, Bat-Pitault F, Carles ME, Clarke J, Dodin V. Chantal Stheneur 3,23,24 and Nathalie Godart 3,16,25,26. *Mouna Hanachi-Guidoum*. 10:278. doi:10.3390/jcm8020278

65. Russell G. Bulimia nervosa: an ominous variant of anorexia nervosa. *Psychological Medicine*. 1979;9(3):429-448. doi:10.1017/S0033291700031974

66. Nitsch A, Dlugosz H, Gibson D, Mehler PS. Medical complications of bulimia nervosa CME MOC. *CLINIC JOURNAL OF MEDICINE*. 2021;88(6). doi:10.3949/ccjm.88a.20168

67. Mehler PS, Rylander M. Bulimia Nervosa-medical complications. Published online 2015. doi:10.1186/s40337-015-0044-4

68. Eating disorders: recognition and treatment NICE guideline. Published online 2017. Accessed January 24, 2022. www.nice.org.uk/guidance/ng69

69. Stunkard AZ. EATING PATIERNS AND OBESITY*.

70. Kessler RC, Berglund PA, Chiu WT, et al. The prevalence and correlates of binge eating disorder in the WHO World Mental Health Surveys. *Biol Psychiatry*. 2013;73(9):904. doi:10.1016/J.BIOPSYCH.2012.11.020

71. Fassino S, Leombruni P, Pierò A, Abbate-Daga G, Rovera GG. Mood, eating attitudes, and anger in obese women with and without Binge Eating Disorder. *Journal of Psychosomatic Research*. 2003;54(6):559-566. doi:10.1016/S0022-3999(02)00462-2

72. Grilo CM, White MA, Gueorguieva R, Wilson GT, Masheb RM. Predictive significance of the overvaluation of shape/weight in obese patients with binge eating disorder: findings from a randomized controlled trial with 12-month follow-up. *Psychol Med*. 2013;43(6):1335. doi:10.1017/S0033291712002097

73. Zunker C, Peterson CB, Cao L, et al. A Receiver Operator Characteristics Analysis of Treatment Outcome in Binge Eating Disorder to Identify Patterns of Rapid Response. *Behaviour research and therapy*. 2010;48(12):1227. doi:10.1016/J.BRAT.2010.08.007

74. Vocks S, Tuschen-Caffier B, Pietrowsky R, Rustenbach SJ, Kersting A, Herpertz S. Meta-analysis of the effectiveness of psychological and pharmacological treatments for binge eating disorder. *International Journal of Eating Disorders*. 2010;43(3):205-217. doi:10.1002/EAT.20696

75. Iacovino JM, Gredysa DM, Altman M, Wilfley DE. Psychological Treatments for Binge Eating Disorder. *Curr Psychiatry Rep*. 2012;14(4):432. doi:10.1007/S11920-012-0277-8

76. Reas DL, Grilo CM. Review and Meta-analysis of Pharmacotherapy for Binge-eating Disorder. *Obesity (Silver Spring)*. 2008;16(9):2024-2038. doi:10.1038/OBY.2008.333

77. Chen E, Roehrig M, Herbozo S, et al. Compensatory eating disorder behaviors and gastric bypass surgery outcome. *International Journal of Eating Disorders*. 2009;42(4):363-366. doi:10.1002/eat.20617

78. Zimmerman M, Francione-Witt C, Chelminski I, et al. Presurgical psychiatric evaluations of candidates for bariatric surgery, part 1: reliability and reasons for and frequency of exclusion. *J Clin Psychiatry*. 2007;68(10):1557-1562. doi:10.4088/JCP.V68N1014

79. Expert Panel Report: Guidelines (2013) for the management of overweight and obesity in adults. *Obesity (Silver Spring)*. 2014;22 Suppl 2(SUPPL. 2):S41-S410. doi:10.1002/OBY.20660

80. Yager J, Michael Devlin CJ, Halmi KA, et al. PRACTICE GUIDELINE FOR THE Treatment of Patients With Eating Disorders Third Edition WORK GROUP ON EATING DISORDERS AMERICAN PSYCHIATRIC ASSOCIATION STEERING COMMITTEE ON PRACTICE GUIDELINES AREA AND COMPONENT LIAISONS STAFF. Published online 2010. Accessed December 2, 2021. http://www.appi.org/CustomerService/Pages/Permissions.aspx.

81. Thomas JJ, Vartanian LR, Brownell KD. The relationship between eating disorder not otherwise specified (EDNOS) and officially recognized eating disorders: meta-analysis and implications for DSM. *Psychol Bull*. 2009;135(3):407-433. doi:10.1037/A0015326

82. Schmidt U, Lee S, Perkins S, et al. Do adolescents with eating disorder not otherwise specified or full-syndrome bulimia nervosa differ in clinical severity, comorbidity, risk factors, treatment outcome or cost? *Int J Eat Disord*. 2008;41(6):498-504. doi:10.1002/EAT.20533

83. Krug I, Binh Dang A, Granero R, et al. Drive for thinness provides an alternative, more meaningful, severity indicator than the DSM-5 severity indices for eating disorders. *Eur Eat Disord Rev*. 2021;29(3):482-498. doi:10.1002/ERV.2776

84. Health Food Junkie--Orthorexia Nervosa, the New Eating Disorder. Accessed February 28, 2022. https://www.beyondveg.com/bratman-s/hfj/hf-junkie-1a.shtml

85. Fidan T, Ertekin V, Işikay S, Kirpinar I. Prevalence of orthorexia among medical students in Erzurum, Turkey. *Comprehensive Psychiatry*. 2010;51(1):49-54. doi:10.1016/J.COMPPSYCH.2009.03.001

86. Pope CG, Pope HG, Menard W, Fay C, Olivardia R, Phillips KA. Clinical features of muscle dysmorphia among males with body dysmorphic disorder. *Body Image*. 2005;2(4):395. doi:10.1016/J.BODYIM.2005.09.001

87. Choi PYL, Pope HG, Olivardia R. Muscle dysmorphia: a new syndrome in weightlifters. *Br J Sports Med*. 2002;36(5):375-376. doi:10.1136/BJSM.36.5.375

88. Pope HG, Katz DL, Hudson JI. Anorexia nervosa and “reverse anorexia” among 108 male bodybuilders. *Compr Psychiatry*. 1993;34(6):406-409. doi:10.1016/0010-440X(93)90066-D

89. Diabulimia and diabetes | Diabetes UK. Accessed March 31, 2022. https://www.diabetes.org.uk/guide-to-diabetes/life-with-diabetes/diabulimia

90. Gharib Nazem T, Ackerman KE. The Female Athlete Triad. doi:10.1177/1941738112439685

91. Noncommunicable diseases. Accessed March 5, 2022. https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

92. Cordain L, Eaton SB, Sebastian A, et al. Origins and evolution of the Western diet: health implications for the 21st century. *The American Journal of Clinical Nutrition*. 2005;81(2):341-354. doi:10.1093/AJCN.81.2.341

93. Marcason W. What Are the Components to the MIND Diet? *J Acad Nutr Diet*. 2015;115(10):1744. doi:10.1016/J.JAND.2015.08.002

94. Appel LJ, Moore TJ, Obarzanek E, et al. A Clinical Trial of the Effects of Dietary Patterns on Blood Pressure. *http://dx.doi.org/101056/NEJM199704173361601*. 2009;336(16):1117-1124. doi:10.1056/NEJM199704173361601

95. Bach-Faig A, Berry EM, Lairon D, et al. Mediterranean diet pyramid today. Science and cultural updates. *Public Health Nutrition*. 2011;14(12A):2274-2284. doi:10.1017/S1368980011002515

96. Stipanuk MH, Caudill MA, Wallin R. Chapter 28 – Vitamin K. *Biochemical, Physiological, and Molecular Aspects of Human Nutrition*. Published online 2013:655-669. Accessed March 7, 2022. http://www.sciencedirect.com/science/article/pii/B9781437709599000285

97. Cena H, Calder PC. Defining a healthy diet: Evidence for the role of contemporary dietary patterns in health and disease. *Nutrients*. 2020;12(2). doi:10.3390/nu12020334

98. Stipanuk MH, Caudill MA. *Biochemical, Physiological, and Molecular Aspects of Human Nutrition /Structure and Properties of the Macronutrients*. Elsevier/Saunders; 2013. Accessed March 7, 2022. http://www.amazon.com/Biochemical-Physiological-Molecular-Aspects-Nutrition/dp/1437709591

99. Stipanuk MH, Caudill MA. *Biochemical, Physiological, and Molecular Aspects of Human Nutrition /The Minerals and Water. In*. Elsevier/Saunders; 2013. Accessed March 7, 2022. http://www.amazon.com/Biochemical-Physiological-Molecular-Aspects-Nutrition/dp/1437709591

100. Stipanuk MH, Caudill MA. *Biochemical, Physiological, and Molecular Aspects of Human Nutrition / The Vitamins. In*. Elsevier/Saunders; 2013. Accessed March 7, 2022. http://www.amazon.com/Biochemical-Physiological-Molecular-Aspects-Nutrition/dp/1437709591

101. Slavin JL. *Biochemical, Physiological, and Molecular Aspects of Human Nutrition /*. (M Stipanuk and M Caudill, ed.). Elsevier/Saunders; 2013. Accessed March 7, 2022. http://www.amazon.com/Biochemical-Physiological-Molecular-Aspects-Nutrition/dp/1437709591

102. Benisi-Kohansal S, Saneei P, Salehi-Marzijarani M, Larijani B, Esmaillzadeh A. Whole-Grain Intake and Mortality from All Causes, Cardiovascular Disease, and Cancer: A Systematic Review and Dose-Response Meta-Analysis of Prospective Cohort Studies. *Advances in Nutrition*. 2016;7(6):1052-1065. doi:10.3945/AN.115.011635

103. Zong G, Gao A, Hu FB, Sun Q. Whole Grain Intake and Mortality From All Causes, Cardiovascular Disease, and Cancer: A Meta-Analysis of Prospective Cohort Studies. *Circulation*. 2016;133(24):2370-2380. doi:10.1161/CIRCULATIONAHA.115.021101

104. Aune D, Keum N, Giovannucci E, et al. Whole grain consumption and risk of cardiovascular disease, cancer, and all cause and cause specific mortality: systematic review and dose-response meta-analysis of prospective studies. *The BMJ*. 2016;353. doi:10.1136/BMJ.I2716

105. Protein's Functions in the Body – Human Nutrition [DEPRECATED]. Accessed March 7, 2022. https://pressbooks-dev.oer.hawaii.edu/humannutrition/chapter/proteins-functions-in-the-body/

106. Lonnie M, Hooker E, Brunstrom JM, et al. Protein for Life: Review of Optimal Protein Intake, Sustainable Dietary Sources and the Effect on Appetite in Ageing Adults. *Nutrients*. 2018;10(3). doi:10.3390/NU10030360

107. Aicr, WCRF. Meat, fish and dairy products and the risk of cancer.

108. Demeyer D, Mertens B, de Smet S, Ulens M. Mechanisms Linking Colorectal Cancer to the Consumption of (Processed) Red Meat: A Review. *Crit Rev Food Sci Nutr*. 2016;56(16):2747-2766. doi:10.1080/10408398.2013.873886

109. Kim JE, O'Connor LE, Sands LP, Slebodnik MB, Campbell WW. Effects of dietary protein intake on body composition changes after weight loss in older adults: a systematic review and meta-analysis. *Nutr Rev*. 2016;74(3):210-224. doi:10.1093/NUTRIT/NUV065

110. Curneen JMG, Casey M, Laird E. The relationship between protein quantity, BMD and fractures in older adults. *Ir J Med Sci*. 2018;187(1):111-121. doi:10.1007/S11845-017-1642-8

111. Biochemical, Physiological, and Molecular Aspects of Human Nutrition - E-Book - Martha H. Stipanuk, Marie A. Caudill - Google Kitaplar. Accessed March 9, 2022.

https://books.google.com.tr/books?hl=tr&lr=&id=fEpVDwAAQBAJ&oi=fnd&pg=PP1&ots=5VTDbhvAxJ&sig=uCu_bassFX8mnTZIHYDuQZ0mw-o&redir_esc=y#v=onepage&q&f=false

112. Ricci C, Baumgartner J, Zec M, Kruger HS, Smuts CM. Type of dietary fat intakes in relation to all-cause and cause-specific mortality in US adults: an iso-energetic substitution analysis from the American National Health and Nutrition Examination Survey linked to the US mortality registry. *Br J Nutr*. 2018;119(4):456-463. doi:10.1017/S0007114517003889

113. de Souza RJ, Mente A, Maroleanu A, et al. Intake of saturated and trans unsaturated fatty acids and risk of all cause mortality, cardiovascular disease, and type 2 diabetes: systematic review and meta-analysis of observational studies. *BMJ*. 2015;351. doi:10.1136/BMJ.H3978

114. Ames BN. Low micronutrient intake may accelerate the degenerative diseases of aging through allocation of scarce micronutrients by triage. *Proc Natl Acad Sci U S A*. 2006;103(47):17589. doi:10.1073/PNAS.0608757103

115. Stipanuk M, Caudill M. Biochemical, physiological, and molecular aspects of human nutrition-E-book. Published online 2018. Accessed March 31, 2022. https://books.google.com/books?hl=tr&lr=&id=fEpVDwAAQBAJ&oi=fnd&pg=PP1&ots=5VTFbcDBzJ&sig=WIuoRtdAZtvH5vGtEB2FGefSJOY

116. Höhn A, Weber D, Jung T, et al. Happily (n)ever after: Aging in the context of oxidative stress, proteostasis loss and cellular senescence. *Redox Biology*. 2017;11:482. doi:10.1016/J.REDOX.2016.12.001

117. Garner DM, Garfinkel PE. The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine*. 1979;9(2):273-279. doi:10.1017/S0033291700030762

118. Elal G, Altug A, Slade P, Tekcan A. Factor structure of the Eating Attitudes Test (EAT) in a Turkish university sample. *Eating and Weight Disorders*. 2000;5(1):46-50. doi:10.1007/BF03353438

119. Savaşır Işık, Erol Neşe. Yeme Tutum Testi:Anoreksiya Nervoza Belirtileri Indeksi. *Psikoloji Dergisi*. Published online 1988:19-25. Accessed April 3, 2022. https://toad.halileksi.net/sites/default/files/pdf/yeme-tutum-testi-anoreksiya-nervoza-belirtileri-indeksi-toad.pdf

120. Ahorsu DK, Lin CY, Imani V, Saffari M, Griffiths MD, Pakpour AH. The Fear of COVID-19 Scale: Development and Initial Validation. *International Journal of Mental Health and Addiction*. Published online 2020:1. doi:10.1007/S11469-020-00270-8

121. Kaya S, Uzdil Z, Cakiroğlu FP. Evaluation of the effects of fear and anxiety on nutrition during the COVID-19 pandemic in Turkey. *Public Health Nutrition*. 2021;24(2):282-289. doi:10.1017/S1368980020003845

122. Kaya S, Uzdil Z, Cakiroğlu FP. Evaluation of the effects of fear and anxiety on nutrition during the COVID-19 pandemic in Turkey. doi:10.1017/S1368980020003845

123. Alimoradi Z, Gozal D, Tsang HWH, et al. Gender-specific estimates of sleep problems during the COVID-19 pandemic: Systematic review and meta-analysis. *J Sleep Res*. 2022;31(1). doi:10.1111/JSR.13432

124. Jahrami H, BaHammam AS, Bragazzi NL, Saif Z, Faris M, Vitiello M v. Sleep problems during the COVID-19 pandemic by population: a systematic review and meta-analysis. *J Clin Sleep Med*. 2021;17(2):299-313. doi:10.5664/JCSM.8930

125. Batool-Anwar S, Robbins R, Ali SH, et al. Examining changes in sleep duration associated with the onset of the COVID-19 pandemic: Who is sleeping and who is not? doi:10.1101/2021.04.06.21254996

126. COVID-19 has changed online shopping forever, survey shows | UNCTAD. Accessed March 30, 2022. https://unctad.org/news/covid-19-has-changed-online-shopping-forever-survey-shows

127. Khubchandani J, Price JH, Sharma S, Wiblishauser MJ, Webb FJ. COVID-19 pandemic and weight gain in American adults: A nationwide population-based study. *Diabetes Metab Syndr*. 2022;16(1). doi:10.1016/J.DSX.2022.102392

128. Body Image Distortion - StatPearls - NCBI Bookshelf. Accessed April 3, 2022. https://www.ncbi.nlm.nih.gov/books/NBK546582/

129. Neeltje van Doremalen, Trenton Bushmaker. Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. *The New England Journal of Medicine*. doi:10.1056/NEJMc2004973

130. Naughton F, Ward E, Khondoker M, et al. Health behaviour change during the UK COVID-19 lockdown: Findings from the first wave of the C-19 health behaviour and well-being daily tracker study. *Br J Health Psychol*. 2021;26(2):624-643. doi:10.1111/BJHP.12500

131. Sato K, Kobayashi S, Yamaguchi M, et al. Working from home and dietary changes during the COVID-19 pandemic: A longitudinal study of health app (CALO mama) users. *Appetite*. 2021;165:105323. doi:10.1016/J.APPET.2021.105323

132. Mecha E, Leitão ST, Carbas B, et al. Characterization of Soaking Process' Impact in Common Beans Phenolic Composition: Contribute from the

Unexplored Portuguese Germplasm. *Foods*. 2019;8(8). doi:10.3390/FOODS8080296

133. Yumi S, Ikuko K, Jun Y, Yoshiko W, Naoko T, Kazuyoshi H. Effects of serotonin on blood glucose and insulin levels of glucose- and streptozotocin-treated mice. *Jpn J Pharmacol*. 1990;54(1):93-96. doi:10.1254/JJP.54.93

134. Zajacova A, Jehn A, Stackhouse M, Denice P, Ramos H. Changes in health behaviours during early COVID-19 and socio-demographic disparities: a cross-sectional analysis. *Canadian journal of public health = Revue canadienne de sante publique*. 2020;111(6):953-962. doi:10.17269/S41997-020-00434-Y

135. Romeo-Arroyo E, Mora M, Vázquez-Araújo L. Consumer behavior in confinement times: Food choice and cooking attitudes in Spain. *Int J Gastron Food Sci*. 2020;21. doi:10.1016/J.IJGFS.2020.100226

136. Freije SL, Senter CC, Avery AD, Hawes SE, Jones-Smith JC. Association Between Consumption of Sugar-Sweetened Beverages and 100% Fruit Juice With Poor Mental Health Among US Adults in 11 US States and the District of Columbia. *Preventing Chronic Disease*. 2021;18:1-10. doi:10.5888/PCD18.200574

137. Oliver G, Wardle J. Perceived Effects of Stress on Food Choice. *Physiology & Behavior*. 1999;66(3):511-515. doi:10.1016/S0031-9384(98)00322-9

138. Yau YHC, Potenza MN. *Stress and Eating Behaviors*.; 2014.

139. Geng JS, Yu XL, Bao HN, et al. Chronic Diseases as a Predictor for Severity and Mortality of COVID-19: A Systematic Review With Cumulative Meta-Analysis. *Frontiers in Medicine*. 2021;8:1442. doi:10.3389/FMED.2021.588013/BIBTEX

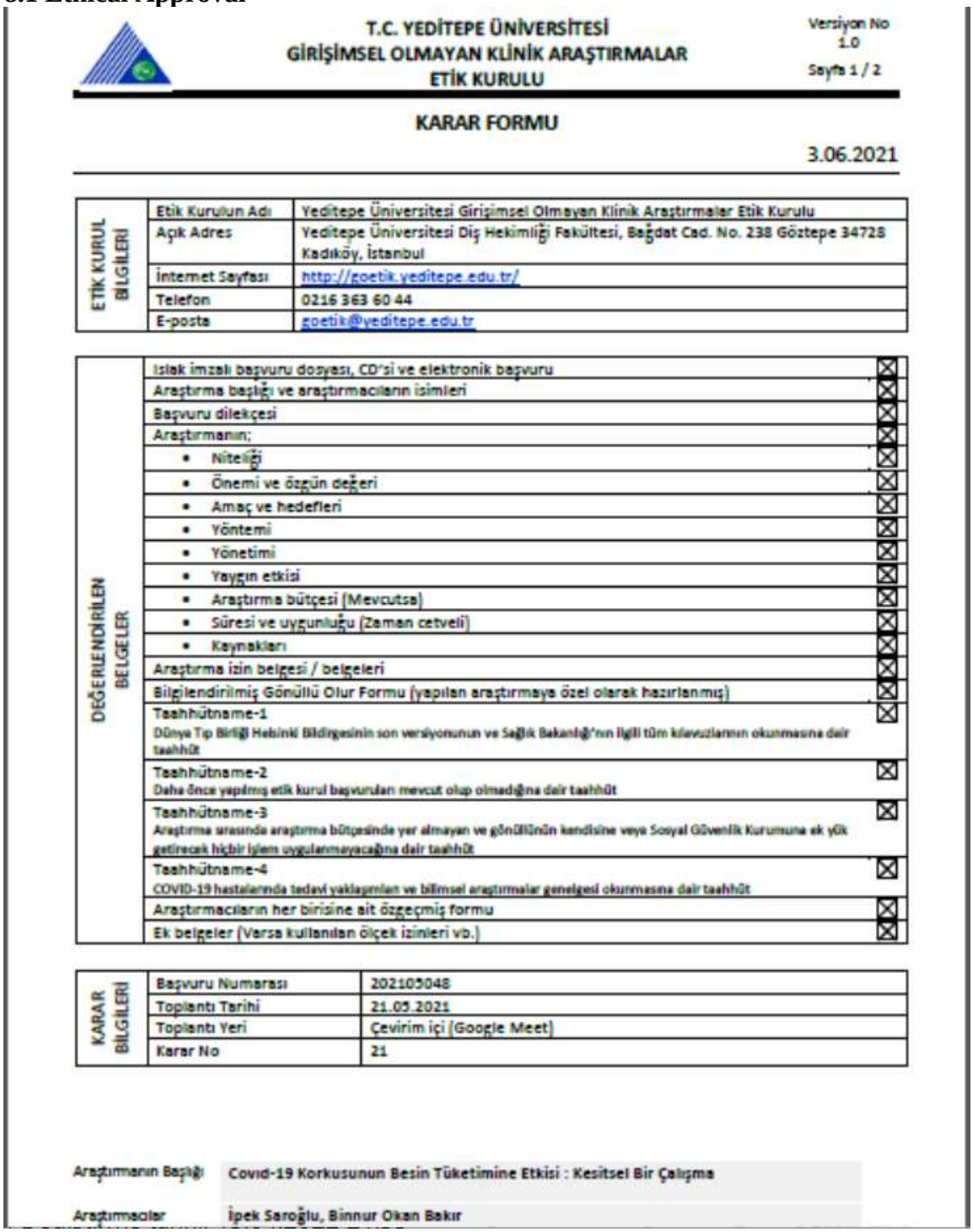
140. Huang T, Xu M, Lee A, Cho S, Qi L. Consumption of whole grains and cereal fiber and total and cause-specific mortality: Prospective analysis of 367,442 individuals. *BMC Medicine*. 2015;13(1):1-9. doi:10.1186/S12916-015-0294-7/TABLES/3

141. Zajacova A, Jehn A, Stackhouse M, Denice P, Ramos H. Changes in health behaviours during early COVID-19 and socio-demographic disparities: a cross-sectional analysis. Published online 1997. doi:10.17269/s41997-020-00434-y

142. Oliveira J de, Colombarolli MS, Figueredo LS, Cordás TA. Cognitive restraint directed at carbohydrates in individuals on low-carb diet with binge eating: the role of guilt about food cravings. *Einstein*. 2021;19:eAO5599. doi:10.31744/EINSTEIN_JOURNAL/2021AO5599

8.APPENDICES

8.1 Ethical Approval



T.C. YEDİTEPE ÜNİVERSİTESİ
GİRİŞİMSEL OLMAYAN KLİNİK ARAŞTIRMALAR
ETİK KURULU

Versiyon No
1.0
Sayfa 1 / 2

KARAR FORMU

3.06.2021

ETİK KURUL BİLGİLERİ	
Etik Kurulun Adı	Yeditepe Üniversitesi Girişimsel Olmayan Klinik Araştırmalar Etik Kurulu
Açık Adres	Yeditepe Üniversitesi Diş Hekimliği Fakültesi, Bağdat Cad. No. 238 Göztepe 34728 Kadıköy, İstanbul
İnternet Sayfası	http://goetik.yeditepe.edu.tr/
Telefon	0216 363 60 44
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DEĞERLENDİRİLEN BELGELER	
Islak imzalı başvuru dosyası, CD'si ve elektronik başvuru	☒
Araştırma başlığı ve araştırmacıların isimleri	☒
Başvuru dilekçesi	☒
Araştırmanın;	☒
• Niteliği	☒
• Önemi ve özgün değeri	☒
• Amaç ve hedefleri	☒
• Yöntemi	☒
• Yönetimi	☒
• Yaygın etkisi	☒
• Araştırma bütçesi (Mevcutsa)	☒
• Süresi ve uygunluğu (Zaman cetveli)	☒
• Kaynakları	☒
Araştırma izin belgesi / belgeleri	☒
Bilgilendirilmiş Gönüllü Olur Formu (yapılan araştırmaya özel olarak hazırlanmış)	☒
Taahhütname-1 Dünya Tıp Birliği Helsinki Bildirgesinin son versiyonunun ve Sağlık Bakanlığı'nın ilgili tüm kılavuzlarının okunmasına dair taahhüt	☒
Taahhütname-2 Daha önce yapılmış etik kurul başvurusu mevcut olup olmadığına dair taahhüt	☒
Taahhütname-3 Araştırma sırasında araştırma bütçesinde yer almayan ve gönüllünün kendisine veya Sosyal Güvenlik Kurumuna ek yük getirecek hiçbir işlem uygulanmayacağına dair taahhüt	☒
Taahhütname-4 COVID-19 hastalarında tedavi yaklaşımları ve bilimsel araştırmalar genelgesi okunmasına dair taahhüt	☒
Araştırmacıların her birisine ait özgeçmiş formu	☒
Ek belgeler (Varsa kullanılan ölçek izinleri vb.)	☒

KARAR BİLGİLERİ	
Başvuru Numarası	202105048
Toplantı Tarihi	21.05.2021
Toplantı Yeri	Çevirim içi (Google Meet)
Karar No	21

Araştırmanın Başlığı	Covid-19 Korkusunun Besin Tüketimine Etkisi : Kesitsel Bir Çalışma
Araştırmacılar	İpek Saroğlu, Binnur Okan Bakır

BAŞVURU NUMARASI: 202105048

KARAR 3.06.2021

☒ KABUL	☐ RET ☐ *KAPSAM DIŞI (GİRİŞİMSEL)* ☐ *BİLİMSEL VE/VEYA ETİK KURALLARA AYKIRI* ☐ *BİR SORUMLU ARAŞTIRMACININ (TEZ İSE TEZ DANIŞMANI), BİR TOPLANTIYA İKİ (2) ADETTEN FAZLA ÇALIŞMA BAŞVURUSUNDA BULUNMASI* ☐ *ŞARTLI KABULDE BELİRTİLEN REVİZYONLARIN ZAMANINDA VE/VEYA İSTENİLDİĞİ ŞEKİLDE YAPILMAMIŞ OLMASI*

Prof. Dr. Didem ÖZDEMİR ÖZENEN **Başkan**				**Doç. Dr. Gökhan ERTAŞ** **Başkan Yardımcısı**				**Doç. Dr. Elif SUNGURTEKİN EKÇİ** **Raportör**			
Katılım		İlişki		Katılım		İlişki		Katılım		İlişki	
☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok
Prof. Dr. Feryal SUBAŞI **Üye**				**Prof. Dr. Şenay UZUN** **Üye**				**Doç. Dr. Mehmet Engin CELEP** **Üye**			
Katılım		İlişki		Katılım		İlişki		Katılım		İlişki	
☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok
Dr. Öğr. Üyesi E. Çiğdem ALTUNOK **Üye**				**Dr. Öğr. Üyesi Binnur OKAN BAKIR** **Üye**				**Dr. Öğr. Üyesi E. Nur ÖZDAMAR** **Üye**			
Katılım		İlişki		Katılım		İlişki		Katılım		İlişki	
☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok	☐Var	☐Yok

Araştırmanın Başlığı	**Covid-19 Korkusunun Besin Tüketimine Etkisi : Kesitsel Bir Çalışma**
Araştırmacılar	**İpek Saroğlu, Binnur Okan Bakır**

8.2 Questionnarie Form

BİLGİLENDİRİLMİŞ GÖNÜLLÜ OLUR FORMU

Araştırmanın Adı: Covıd-19 Korkusunun Besin Tüketimine Etkisi:Kesitsel Bir Çalışma

Sayın katılımcı,

Bu form araştırmanın neden ve nasıl yapıldığını size açıklamak amacı ile oluşturulmuştur. Aşağıda ifade edilen bilgileri dikkatlice okumanızı ve konu hakkında yeterli bulmadığınız açıklamaları araştırmacı ile paylaşmanızı rica ederiz Katıldığınız bu çalışma bilimsel nitelikte bir araştırmadır.Bu araştırma, Kocaeli' nde Sevinç Eczanesin' de yürütülmekte olunan araştırmacı İpek Saroğlu'nun yüksek lisans tezi kapsamında yapılmaktadır.Bu araştırmanın amacı ; pandemi boyunca bireylerin COVID-19 korku düzeyinin beslenme alışkanlıklarındaki değişime etkisini ve bu değişimin yeme davranış bozukluğu eğiliminden ne kadar etkilendiğini saptamaktır
Bu çalışmaya dahil olabilmek için 18-65 yaş arasında olmalı ve diyetinde kısıtlama gerektirecek bir hastalığınız olmamalıdır.Araştırma kapsamında … gönüllüye ulaşmak hedeflenmektedir

Bu çalışmaya katılmak gönüllülük esasına dayanmaktadır. Çalışmaya katılmama ve çalışmanın herhangi bir aşamasında, hiçbir cezaya/yaptırıma maruz kalmaksızın, çalışmadan ayrılma hakkına sahipsiniz.Size ait tüm veriler ve kimlik bilgilerini gizli tutulacaktır ve araştırma yayınlansa bile kimlik bilgileriniz verilmeyecektir.Etik kurul ve sağlık otoriteleri tıbbi kayıtların orjinallerine doğrudan ulaşabilir ancak bu bilgiler gizli tutulur.Bu formun imzalanması ile erişime izin vermiş olursunuz.

Bu bir anket çalışmasıdır ve tamamlanması için öngörülen tahmini süre 20 dakikadır.Araştırmaya katılmak için anketi eksiksiz bir şekilde yanıtlamanız yeterlidir. Araştırmada yer almanız nedeniyle size hiçbir ödeme yapılmayacak ve sizden de hiçbir ücret talep edilmeyecektir. Araştırma hakkında daha fazla bilgi almak için araştırmacı İpek Saroğlu'ya başvurabilir, araştırmacıya günün 24 saatinde 0544 721 22 86 numaralı cep telefonundan erişebilirsiniz.

Araştırmanın bilgilendirilmiş gönüllü olur formundaki tüm açıklamaları okudum/sözlü olarak dinledim. Bana yukarıda konusu ve amacı belirtilen araştırma ile ilgili yazılı ve sözlü açıklama aşağıda belirtilen araştırmacı tarafından yapıldı. Araştırmaya gönüllü olarak katıldığımı istediğim zaman gerekçeli veya gerekçesiz olarak araştırmadan ayrılabileceğimi biliyorum. Söz konusu araştırmaya, hiçbir baskı ve zorlama olmaksızın kendi rızamla katılmayı kabul ediyorum. . Bu çalışma sonuçlarının kullanılmasını kısıtlamamayı, yayın, rapor ve benzeri bilimsel dokümanlarda kullanılmasını kabul ediyorum.İster doğrudan, ister dolaylı olsun araştırma uygulamasından kaynaklı meydana gelebilecek herhangi bir sağlık sorunu ortaya çıkması halinde her türlü tıbbi müdahalenin sağlanacağı konusunda gerekli güvence verildi.

Gönüllü Adı-Soyadı Adres Telefon numarası Tarih

Araştırma hakkındaki yukarıdaki ve istenen diğer bilgiler katılımcıya tarafımdan açıklanmış ve yazılı onamını alınmıştır. İmza:

Tanık Adı-Soyadı Adres Telefon numarası Tarih

Yürütücü Araştırmacı

Diyetisyen İpek Saroğlu Adres Telefon numarası Tarih İmza

Sorumlu Araştırmacı

Dr.Öğr.Üyesi Binnur Okan Bakır Adres Telefon numarası Tarih İmza

EK-10 VERİ TOPLAMA FORMU

DEMOGRAFİK BİLGİLER FORMU

1.Cinsiyetiniz : 1)Kadın 2)Erkek

2.Yaşınız

3.Eğitim durumunuz :

1)Okur-yazar 2)İlkokul mezunu 3)Ortaokul mezunu 4)Lise mezunu 5) Ön lisans mezunu

6)Lisans mezunu 7)Yüksek lisans ve üzeri

4.Medeni haliniz : 1)Evli 2)Bekar

5.Vücut ağırlığınız …… kg

6.Boyunuz …… m

7.Sigara içiyor musunuz? 1) Evet 2)Hayır

8.Alkol kullanıyor musunuz? 1)Evet 2)Hayır

9.Pandemi süresince kilo durumunuz nasıl değişti ?

1)Kilo aldım

2)Kilo verdim

3)Değişmedi

4)Bilmiyorum

YAŞAM TARZI VERİLERİ FORMU

1.Mevcut çalışma durumunuz nedir?

1)Çalışmıyorum.

2)Öğrenciyim

3)Ücretsiz izindeyim.

4)Ücretli izindeyim.

5)Esnek çalışma

6.Pandemi döneminde işten çıkarıldım.

2 ve 3 numaralı soruları çalışıyorsanız ya da öğrenci iseniz yanıtlayınız.

2.Şuan evden mi çalışıyorsunuz / eğitim görüyorsunuz?

1)Evet

2)Hayır

3.Pandemi boyunca evden çalıştınız mı/eğitim gördünüz mü ?

1)Evet

2)Hayır

4.Pandemi süresince beslenme ve sağlıkla ilgili bilgilere nereden ulaştınız ?

1)Sosyal medya ve websiteleri

2)Sağlık profesyonelleri (Doktor,diyetisyen,eczacı vb..)

3)Televizyon

4)Gazete

5)Aile ve arkadaş

5.Covıd-19 pandemi öncesinde günde kaç saat uyurdunuz ?

1)7 saatten az

2)7-9 saat

3)9 saatten fazla

6.Covıd-19 pandemisi başladıktan sonra günde kaç uyuyorsunuz ?

1)7 saatten az

2)7-9 saat

3)9 saatten fazla

7.Covıd-19 pandemi öncesinde uyku kalitenizi nasıl tanımlarsınız?

1)Mükemmel

2)Çok iyi

3)İyi

4)Kötü

5)Çok kötü

8.Covıd-19 pandemisi sonrasında uyku kalitenizi nasıl tanımlarsınız ?

1)Mükemmel

2)Çok iyi

3)İyi

4)Kötü

5)Çok kötü

9.Covıd-19 pandemisi öncesinde haftalık fiziksel aktivite düzeyiniz nasıldı ?
(Yürüyüş,koşu,bisiklet,yüzme,pilates,yoga,fitness vb.)

1) 30 dakikadan az

2)30-90 dakika

3)90-150 dakika

4)150-300 dakika

5)300 dakikadan fazla

10.Covıd-19 pandemisi sonrasında haftalık fiziksel aktivite düzeyiniz nasıl ?
(Yürüyüş,koşu,bisiklet,yüzme,pilates,yoga,fitness vb.)

1) 30 dakikadan az

2)30-90 dakika

3)90-150 dakika

4)150-300 dakika

5)300 dakikadan fazla

11.Covıd-19 pandemisi öncesinde ekran karşısında bir gün boyunca ne kadar süre geçiriyordunuz ?
(Bilgisayar,tablet,cep telefonu,televizyon vb.)

1)0-1 Saat

2)1-2 saat

3)3-4 saat

4)4-5 saat

5)5 saat ve üzeri

12. Covıd-19 pandemisi sonrasında ekran karşısında bir gün boyunca ne kadar süre geçiriyorsunuz ?
(Bilgisayar,tablet,cep telefonu,televizyon vb.)

1)0-1 Saat

2)1-2 saat

3)3-4 saat

4)4-5 saat

5)5 saat ve üzeri

13.Covıd-19 pandemi öncesinde yiyecek alışverişlerinizde hangi yöntemi tercih ediyordunuz ?

1)Markete gitmek

2)Online alışveriş

14. .Covıd-19 pandemi sonrasında yiyecek alışverişlerinizde hangi yöntemi tercih ediyorsunuz ?

1)Markete gitmek

2)Online alışveriş

15.Covıd-19 pandemi öncesinde eve gelen yiyecek alışverişi poşetlerini dezenfekte ediyor muydunuz?

1)Evet

2)Hayır

16. Covıd-19 pandemi sonrasında eve gelen yiyecek alışverişi poşetlerini dezenfekte ediyor muydunuz?

1)Evet

2)Hayır

BESLENME ALIŞKANLIKLARI FORMU

Aşağıdaki soruları Covıd-19 pandemisi başladıktan sonraki süreci göz önüne alarak cevaplayınız.

1.Su tüketimim

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

2.Taze ve kuru meyve tüketimim

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

3.Sebze tüketimim

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

4.Kurubaklagil tüketimim

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

5.Tam tahıl tüketimim (Yulaf,çavdar,karabuğday,bulgur ve türevleri)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

6.Süt ürünleri tüketimim (Süt,yoğurt,peynir,ayran,kefir)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

7.Et,tavuk,balık tüketimim

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

8.Bitki çayı tüketimim (Ihlamur,yeşilçay,adaçayı vb.)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

9.Yağlı tohum tüketimim (Fındık,ceviz,badem,fıstık vb.)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

10.İşlenmiş et tüketimim (Pastırma,salam,sosis,sucuk,füme et vb.)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

11.Paket gıda tüketimim (Şekerleme,çikolata,bisküvi,kraker,cips vb.)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

12.Ev yapımı hamurişi tüketimim (Pasta,kek,börek,kurabiye,poğaça vb.)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

13.Fast-food tüketimim (Hamburger,pizza,patates kızartması vb.)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

14.Alkolsüz şekerli içecek tüketimim (Hazır meyve suları,şekerli gazlı içecekler)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

15.Kahvaltı yapma sıklığım

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

16.Öğle yemeği yeme sıklığım

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

17.Akşam yemeği yeme sıklığım

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

18.Ara öğün yapma sıklığım

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

19.Günlük öğün sayım

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

20.Gıda takviyesi kullanımım (C vitamini,D vitamini,Çinko,Omega-3,Beta-glukan vb…)

1)Çok azaldı

2)Azaldı

3)Değişmedi

4)Arttı

5)Çok arttı

8.3 Eating Attitude Test-40 (EAT-40)

EK.8 YEME TUTUM TESTİ (EAT-40)

Bu anket sizin yeme alışkanlıklarınızla ilgilidir.Lütfen her soruyu dikkatlice okuyun ve size uygun gelen kutunun içerisine x işareti koyun.Örneğin "**Çikolata yemek hoşuma gider.**" cümlesini okudunuz.Çikolata yemek hiç hoşunuza gitmiyorsa **"hiçbir zaman "** yazılı kutunun içine "X" işareti koyunuz, her zaman gidiyorsa "daima"yazılı kutunun içine "X" işareti koyunuz.

Sorular	Daima	Çok sık	Sık sık	Bazen	Nadiren	Hiçbir zaman
1.Başkaları ile birlikte yemek yemekten hoşlanırım.						
2.Başkaları için yemek pişiririm,fakat pişirdiğim yemeği yemem.						
3.Yemekten önce sıkıntılı olurum.						
4.Şişmanlamaktan ödüm kopar.						
5.Acıktığımda yemek yememeye çalışırım.						
6.Aklım fikrim yemektedir.						
7.Yemek yemeyi durduramadığım zamanlar oldu.						
8.Yiyeceğimi küçük küçük parçalara bölerim.						
9.Yediğim yiyeceğin kalorisini bilirim.						
10.Ekmek,patates,pirinç gibi yüksek kalorili yiyeceklerden kaçınırım.						
11.Yemeklerden sonra şişkinlik hissederim.						
12.Ailem fazla yememi bekler.						
13.Yemek yedikten sonra kusarım.						
14.Yemek yedikten sonra aşırı suçluluk duyarım.						
15.Tek düşüncem daha zayıf olmaktır.						
16.Aldığım kalorileri yakmak için yorulana kadar egzersiz yaparım.						
17.Günde birkaç kere tartılırım.						
18.Vücudumu saran dar elbiselerden hoşlanırım.						
19.Et yemekten hoşlanırım.						
20.Sabahları erken uyanırım.						
21.Günlerce aynı yemeği yerim.						
22.Egzersiz yaptığımda harcadığım kalorileri hesaplarım.						
23.Adetlerim düzenlidir. (Yalnızca kadınlar cevaplayacak.)						
24.Başkaları çok zayıf olduğumu düşünür.						
25.Şişmanlayacağım (vücudumun yağ toplayacağı) düşüncesi zihnimi meşgul eder.						
26.Yemeklerimi yemek başkalarınınkinden daha uzun sürer.						
27.Lokantada yemek yemeyi severim.						
28.Müshil kullanırım.						
29.Şekerli yiyeceklerden kaçınırım.						
30.Diyet (perhiz) yemekleri yerim.						
31.Yaşamımı yiyeceğin kontrol ettiğini düşünürüm.						
32.Yiyecek konusunda kendimi denetleyebilirim.						
33.Yemek konusunda başkalarının bana baskı yaptığını düşünürüm.						
34.Yiyeceklerle ilgili düşünceler çok zamanımı alır.						
35.Kabızlıktan yakınırım.						
36.Tatlı yedikten sonra rahatsız olurum.						
37.Diyet (perhiz) yaparım.						
38.Midemin boş olmasından hoşlanırım.						
39.Şekerli,yağlı yiyecekleri denemekten hoşlanırım.						
40.Yemeklerden sonra içimden kusmak gelir.						

8.4 Fear of Covıd-19 Scale (FCV-19S)

EK-9 COVID-19 KORKU ÖLÇEĞİ

	Kesinlikle katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle katılıyorum
En çok koronavirüsenfeksiyonundan korkuyorum.					
Koronavirüsenfeksiyonunu düşünmek beni rahatsız ediyor/endişelendiriyor.					
Koronavirüsenfeksiyonunu düşündüğümde ellerim terliyor.					
Koronavirüsenfeksiyonu yüzünden hayatımı kaybetmekten korkuyorum.					
Sosyal medyada koronavirüsenfeksiyonu ile ilgili haberleri ve olayları izlerken geriliyorum ya da endişeleniyorum					
Koronavirüsenfeksiyonuna yakalanmaktan endişe duyduğum için uyuyamıyorum.					
Koronavirüsenfeksiyonuna yakalanabileceğim düşüncesi kalbimin hızlı çarpmasına sebep oluyor.					