T.C.
YEDITEPE UNIVERSITY
INSTITUTE OF HEALTH SCIENCES
DEPARTMENT OF NUTRITION AND DIETETICS

THE EFFECT OF INTERNALIZED WEIGHT BIAS OF DIETETICS STUDENTS AT A FOUNDATION UNIVERSITY IN İSTANBUL ON THEIR STIGMATIZING ATTITUDES, BELIEFS, AND APPROACHES TOWARD INDIVIDUALS WITH OBESITY

MASTER THESIS

DERYA GÖKÇEN ÜSTÜN

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İstanbul-2023

THESIS APPROVAL FORM

Institute : Yeditepe university Institute of Health Sciences

Programme : Nutrition and Dietetics

Tez Başlığı : The Effect of Internalized Weight Bias of Dietetics Students at a Foundation University in İstanbul on Their Stigmatizing Attitudes, Beliefs, and Approaches toward Individuals with Obesity

Owner of Thesis: Derya Gökçen ÜSTÜN

Examination Date: 18.01.2023

This Study have approved as a Master Thesis in regard to content and quality by the Jury.

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APPROVAL

This thesis has been approved by the jury regarding with the related articles of Yeditepe University Graduate Education and Examinations Regulation and has been approved approved by Administrative Board of Institute with decision dated …….. and numbered ……..

Prof Dr. Bayram Yılmaz

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.

Date

Signature

Name Surname

ACKNOWLEDGEMENTS

I would like to express my gratitude to İrem Kaya Cebioğlu, who has always been by my side in the planning and execution of my thesis, has never spared me her support and knowledge, and guided me.

I would like to thank them for the support of TUBITAK 2210-A Domestic Graduate Scholarship Program throughout my master education.

I would like to express my special thanks to my dear mother Tülay ÜSTÜN and my father Davut ÜSTÜN, who have always stood by me and supported me throughout my education life.

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LIST OF ABBREVIATIONS

BMI	Body Mass Index
kg	kilogram
$\boldsymbol{m^2}$	Square of meters
WHO	World Health Organization
FP	Fat Phobia
WBI	Weight Bias Internalization
CV	Curriculum Vitae
WBIS-M	The Modified Weight Bias Internalization
WBIS	Weight Bıas Internalization
FPS	Fat Phobia Scale
T-BAOP	Turkish Beliefs about Obese Person Scale
BAOP	Beliefs about Obese Person Scale
T-ATOP	Turkish Attitudes toward Obese Person Scale
ATOP	Attitudes toward Obese Person Scale

ABSTRACT

Üstün, D.G. (2023). The Effect of Internalized Weight Bias of Dietetics Students at a Foundation University in Istanbul on Their Stigmatizing Attitudes, Beliefs and Approaches Towards Individuals with Obesity. Yeditepe University, Institute of Health Science, Department of Nutrition and Dietetics, Master Thesis, İstanbul.

From the public health perspective, how and to what extent dietetics students internalize weight and its reflection on the client and/or patient's attitudes and beliefs is crucial. This study aims to understand the effect of dietetics students' weight internalization and their dietetic approaches, attitudes, and beliefs toward clients with obesity and their fat phobia. Totally 148 students from the 3rd, 4th, and Master's grades of the Yeditepe University Nutrition and Dietetics Department participated. Weight bias internalization (WBIS-M) scores were the highest, with a mean of 2.50±1.90 for 3rd-grade students, and a significant difference was found between internalization scores between 4th and Master's students (p=0.042). All students' mean body mass index (BMI) was in the normal weight range, and correlation analysis revealed that the student's WBIS-M score increased as the BMI increased (p=0.017). Students' overall mean fatphobia score was at the mild level, and no significant difference was observed between the groups (p=0.256). Although the diet patterns, blood parameters, and physical activity status of the two hypothetical case samples diagnosed with lactose intolerance used in the study were the same, the suggestions of the client with obesity, such as reducing carbohydrates (p=0.004) and weight loss (p=0.000), are indicators of fat-phobic attitude. In addition, the client with obesity was scored as having worse diet quality (p=0.000), worse general health status (p=0.000), and worse daily physical activity status (p=0.014). As a result, during Nutrition and Dietetics education, students' awareness should be increased to consider the etiology of obesity apart from the individual's control.

Key Words: Weight Bias Internalization, Weight Bias, Obesity Stigma, Nutrition and Dietetics, Students

ABSTRACT (TURKISH)

Üstün, D.G. (2023). İstanbul'da Bir Vakıf Üniversitesindeki Diyetetik Öğrencilerinin İçselleştirilmiş Kilo Önyargılarının Obezitesi Olan Bireylere Yönelik Damgalayıcı Tutum, İnanç ve Yaklaşımlarına Etkisi. Yeditepe Üniversitesi, Sağlık Bilimleri Enstitüsü, Beslenme ve Diyetetik Bölümü, Yüksek Lisans Tezi. İstanbul.

Halk sağlığı açısından bakıldığında, diyetetik öğrencilerinin kiloyu nasıl ve ne ölçüde içselleştirdiği ve bunun danışan ve/veya hastanın tutum ve inançlarına yansıması çok önemlidir. Bu çalışmanın amacı diyetetik öğrencilerinin kiloyu içselleştirme durumları ile obezitesi olan danışanlarına yönelik diyetetik yaklaşımları, tutum ve inançları ve kilo fobisi tutumlarının etkisini anlamaktır. Yeditepe Üniversitesi Beslenme ve Diyetetik Bölümü 3., 4. ve Yüksek Lisans sınıflarından toplam 148 öğrenci katıldı. Ağırlık yanlılığı içselleştirme (WBIS-M) puanları ortalama 2,50±1,90 ile 3. sınıf öğrencilerinde en yüksekti ve içselleştirme puanları arasında 4. ve yüksek lisans öğrencileri arasında anlamlı bir fark bulundu (p=0.042). Tüm öğrencilerin ortalama vücut kitle indeksi (BKİ) normal kilo aralığındaydı ve korelasyon analizi, öğrencinin BKİ değeri arttıkça WBIS-M puanının arttığını gösterdi (p=0,017). Öğrencilerin genel kilo fobisi puan ortalamaları hafif düzeyde olup, gruplar arasında anlamlı bir fark gözlenmemiştir (p=0,256). Çalışmada kullanılan laktoz intoleransı tanılı iki hipotetik vaka örneğinin diyet örüntüleri, kan parametreleri ve fiziksel aktivite durumları aynı olmasına rağmen, obezitesi olan danışanın karbonhidratları azaltma (p=0,004) ve kilo verme gibi önerileri (p=0.000), kilo fobisi tutumun göstergesidir. Ayrıca obezitesi olan danışanın diyet kalitesi daha kötü (p=0.000), genel sağlık durumu daha kötü (p=0.000) ve günlük fiziksel aktivite durumu daha kötü (p=0.014) olarak skorlandı. Sonuç olarak, Beslenme ve Diyetetik eğitimi sırasında öğrencilerin obezitenin etiyolojisini bireyin kontrolünden ayrı olarak ele alması konusunda farkındalığı arttırılmalıdır.

Anahtar Kelimeler: Ağırlık Önyargı İçselleştirmesi, Ağırlık Önyargısı, Obezite Damgası, Beslenme ve Diyetetik, Öğrenci

1. INTRODUCTION AND PURPOSE

As obesity has become a global health problem, it has become a topic that has begun to attract more attention, and researchers, clinicians, and public health professionals have also made the results of prejudice, discrimination, and stigmatization related to weight a popular research topic. Negative attitudes towards overweight individuals or individuals with obesity are defined as weight bias, and individuals with obesity commonly face weight stigma in most areas of their lives, such as in education, employment, and health care settings (1). Empirical evidence consistently supports links between weight-related depression, disordered eating, anxiety, and adverse mental and physical health outcomes, including poorer overall health and poor progressive quality of life. Exposure to weight stigma is also linked to body image disorders, such as increased body dissatisfaction, distress over body image, and preoccupation with weight (2). In addition to all these, weight bias is a situation that we experience not only by the person in front of us, but also within ourselves. Internalizing weight is a concept that can be observed in every individual and in nutrition and dietetics students, and indirectly causes various health problems in individuals (3).

Adults with obesity who have a high level of internalized weight bias and seek weight loss treatment have been reported to be 46% more likely to meet cardiovascular disease risk factors that strongly increase the risk of diabetes, heart disease, and stroke called metabolic syndrome. Individuals with high levels of internalized weight bias have been reported to have a three times greater risk of metabolic syndrome compared with those with low levels (4). In addition, it is assumed that the risk of metabolic abnormalities and the development of unhealthy coping methods that will negatively improve health may increase with the increase of physiological stress and arousal as a result of self-stigmatization (4).

Recent studies have provided evidence of a negative association of internalized weight bias with weight-based health behaviors (5). Two studies reported that internalized weight bias predicted that weight lost would result in less long-term maintenance (6,7). Despite this evidence, internalized weight bias is rarely considered in most weight management programs (5,8). Some studies have reported small reductions in internalized weight bias following the completion of short-term healthy eating or weight management programs (9,10,11).

Today, modern cultures idealize thinness and underestimate weight, as a result, this idea can be supportive in prejudiced attitudes towards individuals with overweight and obesity (12). This weight-based bias is also observed among health professionals such as doctors, nurses, sports and health coaches, health students, dietitians, and nutritionists (13). Documented associations from these occupational groups cause the internalization of negative messages by attributing stereotypes of individuals with obesity to being 'worthless,' 'lazy,' and 'stupid' (14). In the next step, this bias leads a patient to develop unhealthy behavioral compensation methods (15). In addition to all these, psychological barriers that may arise for clients seeking treatment or preventive health services are also worrisome. If the weight bias is felt by the patient/client, this can make the person feel uncomfortable and prevent the treatment process, and as a result, the person may face more risks (16). In a study conducted with university students specializing in nutrition and dietetics, hypothetical case samples were evaluated, and moderate weight phobia was observed in parallel with the population, and implicit biases were determined for individuals with overweight and obesity, such as worse diet quality, treatment quality of overweight and obesity individuals thoughts of less compliance with the plan, less self-control, and lower self-esteem can be given (17). The accumulated findings as a result of these studies show the need to address the bias topics that prevent healthcare professionals from considering patients/clients holistically. In addition, actions should be taken to reduce and eliminate openly displayed explicit bias towards individuals with obesity. The main goal is to behave all clients respectfully and equality, regardless of shape or size. (18).

The aim of the study is to measure the weight internalization status with the increase in the education level of dietetics students, and whether this status has an effect on the dietetic approach, fat-phobia, attitudes and beliefs towards people with obesity.

2. LITERATURE REVIEW

2.1. Definition and Prevalence of Overweight and Obesity

Obesity, one of the important public health problems of today, is the increase in adipose tissue due to the imbalance between intake and expenditure of energy (19). Body mass index (BMI) is a simple height/weight ratio broadly used to describe overweight and obesity in adults. This basic formula is obtained by dividing weight in kilograms (kg) by the square of height in meters (m^2). The BMI value is 25.0-29.9 kg/m^2 overweight, and when it is >30 kg/m^2, it is classified as an individual with obesity by the World Health Organization (WHO) (19).

Since BMI is the same for men and women and adults of all ages, it provides the most helpful measure of individuals with overweight and obesity at the population level, but since BMI does not represent the similar grade of body fat in different individuals, it should be noted as a rough guidebook. Age should be taken into account when calculating this ratio in children (19).

According to data from 2016, more than 1.9 billion people, defined as adults aged 18 and over, were overweight, and more than 650 million of these people have obesity. In addition to this information, approximately 13% of adults worldwide (15% of women and 11% of men) have obesity, and the prevalence of obesity in the world tripled between 1975 and 2016. The prevalence of overweight and obesity in children and adolescents aged 5-19 years increased from 4% to 18% from 1975 to 2016. In 2020, 39 million children under the age of 5 were determined as children with overweight or obesity (19).

Obesity prevalence is rising daily in our country, as in other countries in the world. According to the information in the preliminary study report of the "Turkey Nutrition and Health Survey-2010" conducted by the Turkish Ministry of Health, the obesity prevalence in Turkey is:

The prevalence of obesity in adults was 20.5 % in men, 41 % in women, and 30.3 % in total. In total, those who were determined as individuals with overweight were 34.6 %, and those who were determined as individuals with overweight or obesity were 64.9 %.

The prevalence of obesity in children and adolescents was 8.5 % (6.8 % girls, 10.1 % boys) between the ages of 0-5 and 8.2 % (7.3 % girls, 9.1 % boys) between the

ages of 6-18. In the 0-5 age range, 17.9 % were overweight, 8.5 % were with obesity, 14.3 % were overweight, and 8.2% were with obesity in the 6-18 age range (20).

Considering the BMI calculated using the height and weight values, In 2016, the rate of individuals aged 15 years and over with obesity was 19.6%, while in 2019, this rate increased to 21.1%. Regarding gender, In 2019, 24.8% of women were with obesity, and 30.4% were with pre-obesity, while 17.3% of men were with obesity and 39.7% were with pre-obesity (21).

When the cause of obesity and overweight is examined, the most simple way is the energy imbalance between the calories consumed and the calories expended. Changes in dietary patterns/habits and physical activity patterns often result from environmental and societal changes linked with the development and lack of supportive policies in sectors such as education, agriculture, food processing, distribution, marketing, transportation, urban planning, environment, and health.

An increased BMI is a prominent risk factor for non-communicable diseases such as cardiovascular diseases, diabetes, and musculoskeletal disorders like osteoarthritis, endometrial, breast, ovarian, prostate, liver, gallbladder, kidney, and certain types of cancer. The risk for these diseases rises with the increment in BMI (19).

2.2 Weight Bias, Weight Bias Internalization, Fat Phobia, Beliefs, and Attitudes Concerning Obesity

2.2.1 Weight Bias

The rough definition of weight bias is a set of negative attitudes, discrimination, and negative adjectives about the individuals while describing them, and weight bias is generally defined as negative attitudes and beliefs that people are exposed to because of their weight (22). This situation may arise as stereotypes, such as individuals with overweight or obesity is labeled as lazy, ugly, and weak-willed, or as overt biases, such as in employment and hiring determination (22,23). Weight bias can cause weight stigma against individuals with overweight or obesity in various ways, for example, in multiple institutions and organizations such as workplaces, health services, or other communication sources such as friends and even family, which can lead to exclusion, inequalities, or discrimination. Although there is a high perception that it can occur in young people compared to adults, individuals of all age ranges, genders, and weight ranges are sensitive to weight bias (22).

Entrenched theories are used to figure out the psychological and social underpinnings of weight bias and to support improvement to decrease such biases. According to Attribution theory, which is accepted in the weight stigma field, it is claimed that 'people try to search for information to make the uncertainty of the results meaningful' and prepare their reactions in response to this search (24). Thus, the mentioned stigma defines the negative sense of society towards a particular group. Some authors on this theory base suggest that weight bias is how their actions guide their destinies and may emerge from the positive values of individualism (25,26). The focus of this theory is that obesity is in one's control, a fully reversible condition. At the same time, this theory holds the opinion that obesity is caused entirely by bad choices and behaviors that the person has made and that these can be changed. Therefore, the individual with obesity is blamed and isolated. Conversely, people who do not have obesity see themselves as far from the risk of developing obesity (22).

2.2.2 Weight Bias Internalization

Negative mental and physical health consequences such as low self-esteem, depression, body dissatisfaction, and anxiety are frequently encountered as a result of the stigma that develops due to weight. In addition to externally biased attitudes and weight bias, individuals with overweight or obesity may internalize this weight bias or self-blame, also known as self-stigmatization or weight bias internalization (WBI) (16). Negative weight stereotypes internalization is also known as WBI and is extensively described as being conscious of the unfavorable stereotypes of one's social identity, accepting these stereotypes, applying them to yourself, and feeling worthless because of their social identity (5).

2.2.3 Fat Phobia

Fat Phobia (FP), briefly defined, is the whole of negative behaviors against people with overweight or obesity; these behaviors are carried out unconsciously by people because they think that weight gain is under the control of the person and the reason for being overweight is only due to excess body weight (27). WBI appears with various health consequences such as low self-esteem, dissatisfaction with the body, eating disorders, depression, anxiety mood, and a decrease in physical activity on various mental and physical health outcomes (28). At the same time, WBI can manifest itself in physical health outcomes by experiencing weight discrimination (14, 29). As an example, in a

recent study, there is evidence that the probability of metabolic syndrome is increased among people with high WBI scores (30).

2.2.4 Beliefs, and Attitudes

Currently, researchers do not have certain information about whether WBI's originating from family, work environment, or any environment have a say on the effect size. For example, weight stigma by family members can strongly impact a person's self-concept. Family is our primary support source in general, and when the notifications and comments about weight from the outside and strangers are compared, those from within the family can be met with more seriousness. This idea can be considered true when we get feedback about weight, especially when we form our social identity at a young age (14). In addition to this view, being exposed to weight bias because of one's weight in an institutional setting such as the work environment may lead to self-stigmatization or blaming as a result of thinking that one's own success is a threat and may even be 'held back' for this reason (31). Obesity may be a less stigmatized factor in environments where individuals with obesity are the majority, so having individuals with obesity in the family may have a protective effect on one's WBI levels. On the contrary, if the family members are not happy with their own weight and they internalize this situation, this may cause an increase in the internalization status of the other member of the family (14).

Individuals who have high body weight are more vulnerable to stigma and discrimination because of their excess weight (32). While any body weight can experience weight stigma, weight discrimination, in particular, was highest in adults with class II and III obesity, defined as BMI $\geq$ 35 kg/m^2, at a rate of approximately 45% (13, 33). Experiencing these stigmatizing attitudes has a range of negative consequences on individuals' emotional and physical health outcomes, such as increased depression risk, poor body image, physiological reactivity, psychological distress, ongoing obesity and gaining weight, cardiovascular disease risk factors, and avoiding exercise (13).

People with obesity have been sensed as deceitful, stupid, and lazy and exposed to negative behaviors in various workshops, health units, classrooms, and the media, which we encounter in all areas of life (34). This bias has been observed even among children against their peers with obesity. They were faced with unfavorable approaches, abuse, and ridicule not only by their friends but also by their teachers in the field of education because of their weight. Overweight students, especially women, were less

preferred when compared to students without obesity, although they were better equipped (34,35).

As a result of the experimental research, it has been determined that when individuals give their CVs (Curriculum Vitae) with photographs to the employer, the employer has negative attitudes toward people with obesity, and the rate of preference of people with obesity in recruitment is lower (34).

The conditions of both overweight and obesity can have an effect on relationships with healthcare providers, and there are studies showing unfavorable attitudes of healthcare professionals toward people with obesity. Within the scope of these studies, the existence of these attitudes towards people with obesity has been determined by doctors, medical students, nurses, dietetics students, and dietitians. Within the scope of these studies, doctors, medical students, nurses, dietetics trainees, and dietitians had opinions that people with obesity are lazy, ugly, unsuccessful, weak on the knees, less intelligent, greedy, and unhappy, and these attitudes may lead to prejudiced attitudes towards people with obesity. The most important result we encounter with such negative behaviors is that people with obesity, especially women, cancel their appointments and even cause them to stay away from treatment (34). Conditions such as depression, social withdrawal, and anger are quite common in these people on the grounds of their weight, but some people at this target may also react to this weight judgment by accepting and losing their self-esteem. In addition to all these, it can have negative effects on people's eating behaviors and weight loss goals/efforts, and they may even prefer to eat much more in response to this stigma (36). Individuals with overweight or obesity are exposed to this bias due to the behavior and attitudes of other people, and these are highly influenced by social norms, social media, and experiences. At the root of weight bias and prejudice is the idea that people with obesity will increase their motivation and desire to lose weight as a result of embarrassment. Regardless of their weight, every individual merit respectful and equal treatment and communication, but the people at this target face the opposite of this situation (37).

2.3. Weight Bias within Healthcare

Weight bias is a phenomenon that occurs depending on the weight in which discriminatory and negative attitudes towards people with obesity are adopted, in addition to stigmatizing and discriminatory attitudes and stereotypes. Various factors underlie obesity, and as a result of obesity, many co-morbidities and undesirable conditions can be detected; for example, impaired blood lipid profile, cardiovascular diseases, high blood pressure, diabetes, certain types of cancer, and musculoskeletal disorders may manifest themselves (38,39). Individuals with overweight or obesity face not only pathophysiological but also weight stigma associated with anxiety, depression, low self-image, stress, suicide, and substance use (40). Obesity can have an impact on the level of well-being and quality of life in a person's life. They may be exposed to this prejudice because of their weight from social circles such as family, friends, the media, the public, and even health professionals. These people think that obesity is often under the control of individual choices and responsibility, and they believe that people with obesity have low willpower, do not eat wisely, or do not want to make healthier choices (38,39). These assumptions are linked to stereotypes and are likely to increase dimensions in displaying beliefs and attitudes toward the target person (39). Obesity, which has negative consequences on a person's health, is increasing day by day, and in this context, the need for health institutions and organizations to receive health services for people with obesity is also increasing (37). However, it is mentioned that people with obesity are stuck with the barrier to accessing health services because of their weight. In this line, in gynecology and breast cancer tests, it has been determined that the proportion of people with obesity in BMI classification is reduced compared to those in the normal weight range. When individuals with obesity stay away from health services or delay in order to avoid this judgmental attitude, it is possible that the development of obesity-related diseases cannot be detected, its severity increases, and possible treatment becomes more difficult. Negative attitudes displayed in this way can have detrimental effects on preventing and managing obesity and its associated co-morbidities (41). Obesity is affected by the extent of the pathophysiology of obesity in terms of medical use and health care cost, but it can be affected not only for this reason but also because of entering a vicious circle this cycle; in short, people with obesity avoiding health services due to exposure to weight bias, delaying, and progress of early diagnosis. It can be defined as the increase in the probability of problems and the cost of medical treatment for this reason (42). People with

obesity and others stigmatized by healthcare providers report multiple barriers to accessing healthcare, and inequalities in this area persist. If people with obesity do not feel comfortable in any healthcare institution or if they think that they are not treated with respect, may stop receiving healthcare services, and as a result, they will face falling behind in improving their health. Doctors, nurses, dietitians, physiotherapists, and psychologists, whom we call health care providers, articulate their weight-related biases against people with obesity and those who are overweight (40,43). Depending on these negative attitudes of all these health professionals towards people with obesity, it may also cause a decrease in the quality of the health service provided (43). Often, doctors focus on weight alone as the underlying cause of health problems and may refuse to run any diagnostic test by referring to body size as a predisposing factor (38). Studies investigating whether weight bias has an impact on health care quality suggest that this bias does not affect clinical recommendations, but some of the results in the evidence support this idea, while others report the opposite (44,45,46). After the research, the researchers gathered remarkable attitudes, based on the summaries of the articles, under 10 themes: Humiliating, contemptuous and disrespectful treatment, Lack of education, Indecision, Attribution of all health problems to being overweight, Assumptions about weight gain, Barriers to benefiting from health services, Differential healthcare treatment expectation, Low trust and poor communication, Avoidance or delay in healthcare, and 'Doctor shopping' (41). To briefly explain these titles:

Degrading, Contemptuous, and Disrespectful treatment:

People with obesity or overweight have been reported to be subjected to humiliating, contemptuous and disrespectful treatment by healthcare professionals, including inappropriate humor and verbal insults (41). In two studies (47,48), it was reported that clients with overweight and obesity were exposed to verbal insults and attitudes, including derogatory humor, by healthcare professionals, in addition to displaying patronizing behaviors. In addition, in one of these studies, clients with overweight and obesity reported that they felt less respected than those with a BMI in the normal range (48).

Lack of education:

People with obesity or overweight reported that they perceived a lack of education among health professionals while receiving health care (41). In the study conducted by

Amy et al., it was reported that the vast majority of healthcare professionals did not have special training in the field of clinical gynecology for patients with obesity (48).

Indecision:

The target audience has reported the indecision of health professionals during health care; in addition, it has been reported that women with obesity who receive maternity care are torn between whether or not to receive health care afterward and experience mixed feelings (41).

Attribution of all health problems to overweight:

People with obesity reported that all health problems during the health care service were attributed to excess weight by doctors (41). Clients reported that they felt that healthcare professionals focused too much on their excess weight and therefore moved away from focusing on other health problems and did not fully listen to them (47).

The assumption about weight gain:

People with obesity have reported that doctors often make assumptions against them about what it is like to live with obesity (41). The study reported that although 24% of patients explained themselves and said that they did not actually eat a lot, healthcare professionals did not believe them (49).

Barriers to benefiting from health services:

Explaining to the target group how to lose weight even though they don't want it all the time is stated here (41). Studies have reported that patients with obesity are ashamed of their weight, have a fear of exposing their bodies, and postpone or even cancel their appointments due to small gowns, small tables, and chairs during the examination (47-49).

Low trust and poor communication:

People with obesity reported that they did not receive a comprehensive explanation from their healthcare staff about why their weight was increasing and that they felt they or their weight with their doctors. It has been reported that the desire of the target group to share decreased due to these negative attitudes and prejudices of the people (41). In the study conducted by Wadden et al., most patients states that the reason for their weight gain was not fully explained to them and they could not freely dialogue with their doctors about their weight (49).

Avoidance or delay in healthcare:

In one study, it was reported that people, regardless of BMI, described themselves as having a large body, delaying or canceling their pelvic and breast examination appointments because they thought that if they took off their clothes, they would be judged because of their bodies and excess weight (41,47).

'Doctor Shopping':

It has been reported that when general practitioners cannot provide the quality of service that the patient expects and seek another doctor who can better communicate with people with obesity (41). In another study, it was reported that the majority of the participants changed their doctors due to the indifferent attitude of the health professional towards them and their negative attitudes towards bariatric surgery (50).

In summary, healthcare professionals' weight bias can be a direct influencing factor in the increasing prevalence of obesity and is even associated with the worsening of the condition and mental health outcomes, worsening progression of heart disease, and premature mortality in people with overweight or obesity. The weight bias that arises in health professionals negatively affects the relationship between the patient and the client and the care, and as a result, it causes a decrease in the participation of the person in health services. Exposure to weight bias in interviews with healthcare professionals leads to feelings of depression, anxiety, anxiety, and internalized weight stigma associated with suicide. These mental consequences reveal negative eating behaviors, such as binge eating, which can cause more weight gain later (40).

2.3.1 Weight Bias among Dietitians

The feedback loop model aims to explain how weight-based stigma can cause the undesirable effects of weight gain. According to this model, cortisol levels rise with increased stress levels due to weight stigma, followed by increased eating behavior. Thus, weight gain is observed and results in more stigma and ridicule of the person (51). Various experimental studies reveal that weight-centered biases negatively affect a person's use of health services during the weight loss process (10, 52). To explain this, target people may delay their efforts to seek help for weight loss, postpone their appointments or even cancel their appointments due to the bias of healthcare providers. When we consider all these results as a whole, it can be roughly explained why people's weight loss processes and general health conditions worsen (53). Dietitians, who have more frequent and

intense contact with people with overweight or obesity, were not as focused on weight bias studies as physicians, nurses, and psychologists. Dietitians are health professionals who spend lots of time in the weight loss management process with individuals with obesity or overweight and have an active role in this process. Studies of weight bias in healthcare professionals have shown that it affects not only doctors and therapists but also all professionals who treat and counsel people who are with overweight or obesity (54). To summarize all of them, it is thought that nutritionists and dietitians who spend lots of time with individuals with overweight or obesity may also be prone to weight stigma. As a result of this bias, there may be consequences on the physical and mental health of the patient, such as reducing physical activity or continuing or increasing bad eating habits (32,55). In addition to all these, dietitians' attitudes and beliefs toward individuals with overweight or obesity may have affected their practice choices (56). For example, it may ignore other causes of obesity, such as genetic factors, and focus only on dietary recommendations based on eating less and not include etiology in the weight loss process, and make recommendations regarding these (53).

A study of 439 registered dietitians was conducted with their weight status and attitudes towards individuals with overweight, which resulted in dietitians reporting that emotional problems may be the underlying causes of a person's overweight, they are less likely to follow exercise and dietary advice, and the person sets unrealistic goals. The registered dietitians in the study were less negative about their weight than their overweight clients. Among dietitians, those who define themselves as 'healthy weight' or 'underweight' have a more negative attitude towards obesity compared to dietitians who define themselves as 'overweight.' It was found that students with high-fat phobia scores and female patients with obesity were evaluated as having lower diet quality (57). It has been stated in studies by healthcare professionals that individuals with obesity exhibit an attitude that is incompatible with weight loss treatment (58-60). It is worrying that there is no detail stating that the individual with obesity is noncompliant with the treatment and that the reason for this assumption is only the weight of the patient (15).

2.3.2 Weight Bias among Dietetic Trainees

In addition, the results show that the students make automatic assumptions about the fact that individuals with obesity have worse eating habits and a generally unhealthy life compared to individuals without obesity, despite the fact that individuals have information about having a relatively healthy lifestyle (15). These described results

support research that reveals stereotypes that people with overweight or obesity have unhealthy dietary choices (58,60). Obesity may increase the risk of propensity to various health problems in the future, but BMI is not a direct parameter of health, and there are studies supporting that people can have a fit appearance despite being overweight (61,62). Some students rated people with obesity as having a poorer diet quality than people without obesity, as they assumed that people with obesity reflected reduced diet and calorie values. Making negative assumptions about people's diet and health status without concrete information about the person's health status and diet quality indicates the existence of prejudice. In light of these prejudices, making such negative assumptions can play an important role in the target people's feeling of being judged and stereotyped in cases where people with obesity display compliant behavior for their treatment and their health parameters are within healthy ranges (15). Undergraduate standards for programs of nutrition and dietetics, known as Registered Dietitian Nutrition Information, do not require extensive classroom practice training on weight perception, body dysmorphia, and body image (63). Considering all these, there is a weight bias among health professionals, especially in the field of nutrition and dietetics. Healthcare delivery can be affected by misinterpretation of the various etiologies of weight gain, such as food insecurity, trauma, and psychosocial, and the lack of comprehensive empathy education (17). As a result of the research, it has been stated that there is a need for changes in interventions and approaches throughout nutrition and dietetics education (15,64).

2.4 Weight Bias from the Client's Perspective

From the client's perspective, weight-based stigma exposure can reduce motivation and courage. When dietitians think that their clients or patients are unmotivated, lazy, and unable to set realistic goals for themselves, it will cause them difficulties in planning weight loss strategies and providing adequate support and counseling skills (53). Thinking and reflecting that individuals with overweight or obesity have sufficient and positive qualities may have positive effects on their self-image and, in this context, their belief in themselves in the weight loss process (10). Studies suggest that there are 3 types of behavioral discrimination: instrumental avoidance, such as holding shorter meetings; interpersonal avoidance, such as using negative language, using tones, and communicating; and professional avoidance, such as making less effort. For example, people who found themselves guilty when they failed in the weight loss process and therefore perceived more positively spent more time with their dietitian than people

who were perceived negatively in the weight loss process (53). In another study, it was reported that older and more experienced professionals had less weight bias and stigma . It was emphasized that in addition to the amount of experience, age maythan younger professionals. It was emphasized that in addition to the amount of experience, agemight play an important role in this regard (65). While explaining the cause of overweight and obesity, the attitude and perspective of individuals with overweight and obesity to their sense of responsibility rather than belief explained more of the reported practices. Increased number of appointments as a result of increased emphasis on willpower, advice on food intake under energy control or advice on avoiding or eating certain foods, and agreement to work with other health professionals seeking to treat obesity has increased. Repeated diets were associated with increased advice on physical activity, social and psychological issues, and increased feelings of self-confidence about the treatment of people with obesity, while the reported use of self-administered diet programs decreased. Increased belief in metabolic problems was associated with increased recommendations about eating less and more referrals to other health professionals. It has been reported that recommendations for the proportion of dietary fat intakes increase as the perceived importance of genetic factors increases. Dietitians have reported that they want to record weight regularly for individuals with obesity, considering that mood is the cause of obesity, and they want not only the dietitian but also other health personnel to be present during this treatment process. It has been reported that with the increasing importance given to personality, the recommendation to eat increases, but the increase in the importance of interpersonal effectsis associated with a decrease in the recommendation to eat less. Increasing belief in excessive consumption of the wrong foods has been associated with regular weight weighing (56).

3. MATERIALS AND METHODS

3.1. Place, Time, and Sample Selection in Research

The study was conducted with Yeditepe University Nutrition and Dietetics Department students. Bachelor Program, 3rd-grade, 4th-grade, and Master's Program students will be included in the study, except Bachelor 1-2. Grade students will be excluded from the study in the 2021-2022 academic years. The total number of dietetics students in 3rd-grade was 74, 4th-grade was 72, and the number of Master's students was 67. The sample size of the study, whose population consisted of a total of 213 students, was calculated as a minimum of 137. In reaching the targeted sample number, it is aimed to provide a balanced representation by weighting according to each class level. Thus, a minimum of 48 students from the 3rd-grade, 46 students from the 4th-grade, and 43 students from the Master's program were included in the study.

The informed consent form was signed by the students, who volunteered to participate in the study (Appendix 1).

Ethical approval was obtained from the Ethics Committee of Yeditepe University on 31.01.2022 with the number 202112121 (Appendix 2).

3.2. General Plan of the Research

The questionnaire consisted of several parts, including identifying students' general information, their weight internalization status, their approach to the hypothetical case example from a dietitian's point of view, their fat-phobia status, and their attitudes and beliefs towards people with obesity (Appendix 3).

The first part of the survey aims to learn the general knowledge of the student. This part includes questions about the participant's name and surname, education level, sex, height, and weight.

The second part of the survey includes questions about measuring the internalization status of students' own weight.

In the third part of the survey, there are two hypothetical case examples with the same anthropometric findings, diet pattern, and biochemical findings, one of the subjects in the case is a normal weight, and the other is a person with obesity. There are questions

for their examination of this hypothetical case sample distributed randomly, and then for the counseling, they will apply to this person.

In the fourth part of the survey, there are 14 adjective pairs to measure the fat-phobia status of the participants.

In the fifth and last part of the survey, there are questions about the attitudes and beliefs of the participants toward people with obesity.

The survey was completed face-to-face with 3rd and 4th-grade students, and Master students.

3.3. Measurements

3.3.1. Anthropometric Measurements

The weight (kg) and height (cm) of the participants were determined by self-report. The participants' BMI was calculated using the formula obtained by dividing the participant's weight in kilograms by the square meter of their height.

3.3.2. Determination of Weight Bias Internalization

The Modified Weight Bias Internalization Scale (WBIS-M) in Turkish was used to measure the participants' status of internalizing their weight (18). The scale's Turkish form can be utilized in Turkey to evaluate the internal biases and stigma related to body weight (18). The Weight Bias Internalization Scale (WBIS), developed by Pearl and Puhl (2), is a self-report scale that assesses the internal biases of individuals in different weight categories. The scale consists of 11 items and a 7-point Likert scale. The internal consistency coefficient of the original English version of the scale was found to be 0.94. The validity and reliability of the scale in our country were made by Apay, Yılmaz, Aksoy et al. (18). Higher scores on WBIS-M mean that the person's internalized weight biases are more severe in the negative. In this study, the internal consistency coefficient of the scale was found to be 0.89. The answer choices of the WBIS-M in Turkish are ‘Absolutely Not Agree,’ ‘Mostly Disagree,’ ‘Partially disagree,’ ‘Indecisive,’ ‘Partially Agree,’ ‘Mostly Agree,’ and ‘Completely Agree.’

3.3.3. Determination of Attitude toward Clients

In this part of the study, the Hypothetical Case Sample of two individuals diagnosed with lactose intolerance with the same anthropometric findings, diet pattern, biochemical findings, age, and height, but different weights, were randomly distributed and the participants were asked to evaluate this case. For the cases examined, the participants are asked to evaluate their diet therapy, general nutrition and health status, energy intake, and physical activity status.

3.3.4. Determination of Fat Phobia

The Fat Phobia Scale (FPS) was developed by Robinson, Bacon, and O'reilly (66) and this scale includes 50 pairs of adjectives in total. Later, Bacon, Scheltema, and Robinson (67) developed the short-form form containing 14 adjective pairs. Koçak, Sara. And Hurmeric (68) completed the Turkish validity and reliability study of this scale in 2005. As a result of the test-retest analysis of the scale, the Cronbach α coefficient was found to be 0.82. The scale tries to illuminate stereotypical and prejudiced attitudes towards people with obesity with the help of adjectives. It aims to measure the pathological fear of being overweight. The FPS includes 14 adjective pairs to describe people with obesity, such as self-controlled-non-self-controlled, self-confident-insecure. Participants choose proportionately between pairs of positive and negative adjectives. The FPS has a Likert-type score, with values close to 5 indicating high fatphobia and values close to 1 indicating low fatphobia. The scoring of the scale is calculated by dividing the total score obtained from 14 items by the number of items. According to the developers of the scale, scores between 3.6 and 4.4 represent moderate fat phobia, while scores higher than 4.4 represent high-level fat phobia.

3.3.5. Determination of Beliefs and Attitude toward People With Obesity

3.3.5.1 Turkish Beliefs about Obese Person Scale (T-BAOP)

The Beliefs about Obese Person Scale (BAOP) was developed by Allison, Basile, and Yuker (69) in 1999, and the Turkish validity and reliability study of the scale was completed by Dedeli, Bursalioglu, and Deveci (34) in 2014 and Cronbach α coefficient was found to be 0.84 in this study. T-BAOP is a 6-point Likert-type scale with 8 questions that includes positive and negative belief statements. Scale items are scored as "Strongly Disagree: -3," "Mostly Disagree: -2", "Somewhat Disagree: -1", "Somewhat Agree: 1", "Mostly Agree: 2", "Strongly Agree: 3". On the other hand, 1, 3, 4, 5, 6, and 8th items in

the scale are scored as the opposite of the scoring stated above, and there should be no unanswered items in order to be able to calculate. In the second step of the calculation, the item taken from the scale should be added to the total score average of 24 and the score obtained is the score obtained from T-BAOP. The high mean scores obtained from the scale indicate that individuals with obesity have strong beliefs that obesity is not under their control.

3.3.5.2. Turkish Attitudes toward Obese Persons Scale (T- ATOP)

The Attitudes toward Obese Persons Scale (ATOP) was developed in 1999 by Allison, Basile, and Yuker (69). The validity and reliability study in our country was carried out by Dedeli, Bursalioglu, and Deveci (34) in 2014, and Cronbach α coefficient was found to be 0.86 in this study. The items in the scale are "Strongly Disagree" "-3", "Mostly Disagree: -2," "Slightly Disagree: -1," "Slightly Agree: 1," "Mostly Agree: 2," "Strongly Agree: 3" is scored as points. Items 2-6, 10-12, 14-16, and 19-20 in the scale are calculated in the opposite way of the calculation method above, and there should be no unanswered items in order for this calculation to be made. In the second step of the calculation, 60 points should be added to the score obtained. The resulting score is the total score obtained from the T-ATOP scale. High scores obtained from the scale show that attitudes towards individuals with obesity are positive (34).

3.4. Statistical Analyses

Statistical evaluation was conducted by using Statistical Package for the Social Sciences (IBM® SPSS®) 25.0 package program. Quantitative variables were presented via mean, standard deviation (SD), median, lower and upper values, and qualitative variables were shown as numbers (S) and percentages (%). The Kolmogorov-Smirnov test was conducted to check the normal distribution of the quantitative variables. Student t-test was used to evaluate differences between two groups for parametric data, and the Mann-Whitney U test for non-parametric data. The comparison of 3 or more groups for parametric data was conducted via the one-way Analysis of variance (ANOVA) and the Kruskal-Wallis test for non-parametric data. A Tukey post hoc test was done to confirm the differences between groups for parametric data, and the Kruskal-Wallis post hoc paired comparisons test was done for non-parametric data. Spearman rank correlation (rho) was performed to analyze the correlation between variables for non-parametric data,

and Pearson correlation (r) coefficient was calculated for parametric data. All the results were considered statistically significant for the 95% confidence interval and $p<0.05$.

4. RESULT

In Table 4.1., the comparison of WBIS-M total scores between the 3 groups was examined, and a significant difference was found between the groups ($p = 0.042$, $p < 0.05$). This significant difference was between Grade 4 students and Master's Grade students. While the WBIS-M score of the Grade 4 students was 2.33 ± 1.34, the WBIS-M Score of the students in the Master's group decreased by more than 0.5 points to 1.56 ± 0.69. This shows that the weight internalization score decreases with the transition from the 4th-gr ade to the master's education level, and the rate of internalization of their own weight of nutrition and dietetics students decreases with the increase in the education level.

Table 4.1. Total WBIS-M Score by Education Level

	3^{rd} Grade (n=55) Mean ±S.D. (min-max)	**4^{th} Grade (n=52)** Mean ±S.D. (min-max)	**Master's Grade (n=41)** Mean ±S.D. (min-max)	**Significance p**
WBIS Total Score[a]	2.50 ± 1.90 (1.00 – 7.00)	2.33 ± 1.34 (1.00 – 5.60)	1.56 ± 0.69 (1.00 – 3.40)	0.042*

*; p value calculated via Kruskal-Wallis test, [a]; Mann Whitney U test revealed a significant difference between 4th and Master's grade students.

Table 4.2. Total T-BAOP and T-ATOP Score by Education Level

	3rd-grade (n= 55) Mean ± S.D. (min. – max.)	**4th-grade (n=52)** Mean ± S.D. (min. – max.)	**Master's (n=41)** Mean ± S.D. (min. – max.)	**Significance** p
T-BAOP Total Score	**20.05 ± 6.03** (9 - 38)	**18.52 ± 4.79** (2 – 29)	**19.49 ±4.43** (10 – 30)	**0.310**
T-ATOP Total Score	**67.65 ± 12.10** (44 – 98)	**72.12 ± 16.42** (32 – 104)	**73.10 ± 15.44** (31 – 105)	**0.143**

In Table 4.2., the relationship between T-BAOP and T-ATOP total scores between 3 groups was examined. When comparing the T-BAOP and T-ATOP total scores between 3 groups, there was no significant difference between the groups (p = 0.310, p =0.143, p > 0.05). Considering the T-BAOP total score, the highest score was found in the 3rd-grades, and the lowest score was in the 4th-grades. While the T-ATOP total score of the 3rd-graders was 67.65 ± 12.10, it was found that this score increased slightly when progressing toward the Master's Grades (73.10 ± 15.44), but this increase did not indicate a significant difference.

Table 4.3. Total Fat Phobia Score by Education Level

	3rd-grade (n= 55) Mean ± S.D. (min. – max.)	**4th-grade (n=52)** Mean ± S.D. (min. – max.)	**Master's Grade (n=41)** Mean ± S.D. (min. – max.)	**Significance** p
FP Total Score	**3.21 ± 0.35** (2.00 – 4.14)	**3.19 ± 0.33** (2.50 –3.86)	**3.26 ± 0.50** (1.71 – 4.14)	**0.256**

Table 4.3. shows the comparison of the FP total score between the 3 groups. When comparing FP between the 3 groups, there was no significant difference between the groups (p = 0.2, p > 0.05). The FP total score of ≤ 2.50 is called a neutral level, while a score between 2.51-3.45 indicates a mild level. The 3rd-grade, 4th-grade, and Master's Grade students also showed mild fat phobic attitudes and all had almost equal scores. No significant difference was found between the groups (p = 0.256).

Table 4.4. BMI by Education Level

	3rd-grade (n= 55) Mean ± S.D. (min. – max.)	**4th-grade (n= 52)** Mean ± S.D. (min. – max.)	**Master's Grade (n=41)** Mean ± S.D. (min. – max.)	**Significance** p
BMI	**20.56 ± 3.04** (16.1 – 35.8)	**21.50 ± 3.50** (16.8 – 33.3)	**21.27 ± 3.47** (17.1 – 32.5)	**0.276**

Table 4.4. shows the comparison of the BMI between the 3 groups. When comparing BMI between the 3 groups, there was no significant difference ($p = 0.276$, $p > 0.05$). The BMI classification of the 3rd-grade, 4th-grade and Master's Grade students was normal weight.

Table 4.5. Nonparametric Correlations of BMI, WBIS-M Total Score, FP Total Score, T-BAOP, and T-ATOP Total Score

		1	2	3	4	5
BMI (1)	**rho**	1.000	0.196*	0.061	0.008	0.040
	p	-	0.017	0.464	0.921	0.630
WBIS-M Total Score (2)	**rho**		1.000	0.031	-0.072	−0.163*
	p		-	0.705	0.382	0.047
FP Total Score (3)	**rho**			1.000	−0.202*	−0.304**
	p			-	0.014	0.000
T-BAOP Total Score (4)	**r**				1.000	0.110
	p				-	0.183
T-ATOP Total Score (5)	**r**					1.000
	p					-

*: Correlation is significant at the 0.05 level (2- tailed)

**: Correlation is significant at the 0.01 level (2- tailed)

There was a significant correlation between BMI and WBIS-M, and the relationship between BMI and WBIS-M was positive. As BMI increases, so does WBIS-M. A significant correlation was found between BMI and internalization ($p= 0.01$, $p< 0.05$). Accordingly, an increase in BMI indicates an increase in internalization score. There is no significant relationship between BMI value and FP, T-BAOP and T-ATOP score.

There was a significant negative correlation between WBIS-M and T-ATOP ($p = 0.04$, $p < 0.05$). As WBIS-M score increases, T-ATOP score decreases, indicating that negative attitudes towards individuals with obesity increase as the internalization score increases.

There was a significant negative correlation between FP and T-BAOP score ($p = 0.01$, $p < 0.05$). As the FP score increases, T-BAOP score decreases. This result shows that with the increase in the fat-phobic attitude score, the participant in the study have strong beliefs that obesity is under the control of individuals with obesity.

There was a significant negative correlation between FP and T-ATOP score ($p = 0$, $p < 0.05$). As the FP score increases, T-ATOP score decreases, indicating that negative attitudes towards individuals with obesity increase with the increase in fat phobia.

Table 4.6. The scores of the questions in the determination of the dietary approach according to the client with obesity and normal weight

	Client with Obesity (n=77)	Client with Normal Weight (n=71)	Significance
Scores	**Mean ± S.D. (min. – max.)**	**Mean ± S.D. (min. – max.)**	**p**
Carbohydrate Intake	**3.66 ± 0.83** (2.00-5.00)	**3.28 ± 0.79** (1.00-5.00)	**0.004**
Protein Intake	**3.44 ± 0.75** (2.00-5.00)	**3.32 ± 0.64** (2.00-5.00)	**0.287**
Fat Intake	**3.41 ± 0.69** (2.00-5.00)	**3.15 ± 0.68** (1.00-4.00)	**0.058**
Weight	**4.36 ± 0.58** (3.00-5.00)	**3.49 ± 0.53** (3.00-5.00)	**0.000**
Diet Quality	**3.19 ± 0.64** (2.00-5.00)	**2.69 ± 0.68** (1.00-4.00)	**0.000**
General Health Status	**3.15 ± 0.68** (2.00-4.00)	2.43 ± 0.52 (2.00-4.00)	**0.000**
Water Intake	**3.48 ± 0.92** (1.00-5.00)	**3.01 ± 0.87** (1.00-5.00)	**0.002**
Fiber Intake	**3.10 ± 0.89** (2.00-5.00)	**2.69 ± 0.72** (1.00-4.00)	**0.005**
Daily Energy Intake	**3.41 ± 0.61** (2.00-5.00)	**3.38 ± 0.56** (2.00-5.00)	**0.510**
Daily Physical Activity Status	**4.33 ± 0.66** (3.00-5.00)	**4.07 ± 0.66** (3.00-5.00)	**0.014**

Table 4.6. shows the answers of the participants according to the hypothetical case example. Protein Intake and Daily Energy Intake scoring were reverse scored, while the remaining items were scored straight.

Increasing protein intake and increasing daily energy intake by scoring too high indicate a fat-phobic attitude. On the other hand, increasing scores in carbohydrate intake, fat intake, weight, diet quality, general health status, water intake, fiber intake, and daily physical activity status indicate a fat-phobic attitude by encouraging the case to reduce them.

For carbohydrate intake, the score in the client with obesity was higher than in the client with normal weight. Participants stated that they should significantly reduce their carbohydrate intake in client with obesity. While both cases provide the same amount of carbohydrate intake, the interpretation of reduced carbohydrate intake is brought to the client with obesity, which indicates a fat-phobic attitude ($p = 0.004$, $p < 0.05$).

In protein intake, although there was an equal amount of protein intake in both client samples, increasing protein intake in the client with obesity was 3.44 ± 0.75, while this score was 3.32 ± 0.64 in the client with normal weight. As a result, the increase in the scores for increasing protein intake in the client with obesity indicates a fat-phobic attitude.

In terms of weight, the client with obesity was recommended for weight reduction despite being diagnosed with only lactose intolerance. However, the clients who came with the diagnosis of lactose intolerance did not come with the desire to lose weight. Weight loss was suggested with a score of 4.36 ± 0.58 in the client with obesity and with a score of 3.49 ± 0.53 in the client with normal weight ($p = 0.000$, $p < 0.05$).

Considering the diet quality, although the diet pattern was the same in both clients, the diet quality of the client with obesity was interpreted as worse by 0.5 points compared to the client with normal weight ($p = 0.000$, $p < 0.05$).

Considering the general health status, the client with obesity, despite having the same blood parameters and physical activity level, was interpreted as having a worse general health status of 0.72 points compared to the client with normal weight ($p = 0.000$, $p < 0.05$).

Considering the water intake, it was interpreted that although the water intake of the two clients was the same, the water consumption of the client with obesity was worse than the client with normal weight ($p = 0.002$, $p < 0.05$).

Considering the fiber intake, although the fiber intake amount of the two clients was the same, it was interpreted that the client with obesity had worse fiber intake compared to the client with normal weight ($p = 0.005$, $p < 0.05$).

Considering the daily energy intake, it was interpreted that the client with obesity received more energy intake compared to the client with normal weight, despite having the same diet pattern and equal energy ($p = 0.510$).

Considering the daily physical activity status, although the activity level of both clients was stated as sedentary, it was interpreted that the client with obesity was less than the client with normal weight ($p = 0.014$, $p < 0.05$).

Table 4.7. Comparison of all scores in 2 groups at all education levels

	Non-overweight (n=133) Mean ± S.D. (min. – max.)	**Overweight (n=15)** Mean ± S.D. (min. – max.)	**Significance** p
WBIS-M Total Score	2.12 ± 1.44 (1.00 – 7.00)	2.68 ± 1.84 (1.00 – 7.00)	**0.374**
FP Total Score	3.22 ± 0.40 (1.71 – 4.14	3.20 ± 0.29 (2.86 – 3.86)	**0.602**
T-BAOP Total Score	19.26 ± 4.86 (9 – 38)	20.20 ± 7.80 (2 – 34)	**0.511**
T-ATOP Total Score	70.76 ± 14.97 (31 – 105)	70.47 ± 13.26 (44 – 88)	**0.942**

In Table 4.7., all student groups in our study were analyzed into 2 groups regardign their BMI; as Non-overweight (< 25.00 BMI) and Overweight (≥ 25.00 BMI). There was a difference of more than 0.5 points between the two groups in WBIS-M scores, but there was no significant difference between them ($p > 0.05$). The FP total score was in the mild range in both BMI groups, and there was no significant difference between them ($p = 0.602$). T-BAOP and T-ATOP scores were also close to each other between both groups, and no significant difference was found between BMI and T-BAOP/T-ATOP scores ($p > 0.05$).

Table 4.8 Comparison of all scores in 2 groups of 3rd-grade students

	Non-overweight (n=51)	**Overweight (n=4)**	**Significance**
			p
	Mean ± S.D. (min. – max.)	Mean ± S.D. (min. – max.)	
WBIS-M Total Score	2.42 ± 1.80 (1.00 – 7.00)	3.52 ± 3.01 (1.00 – 7.00)	**0.935**
FP Total Score	3.22 ± 0.36 (2.0 – 4.14)	3.12 ± 0.10 (3.00 – 3.21)	**0.474**
T-BAOP Total Score	19.57 ± 5.78 (9 – 38)	26.25 ± 6.65 (18 – 34)	**0.032**
T-ATOP Total Score	67.94 ± 11.66 (44 – 98)	64.00 ± 18.76 (44 – 88)	**0.536**

Table 4.8. shows the total scores of 3rd-grade students in 2 BMI groups. There was a difference of more than 1 point between the 2 groups in WBIS-M scores, but there was no significant difference between the two groups ($p = 0.935$). The mean T-BAOP score of the non-overweight group was 19.57 and the mean score of the Overweight group was 26.25. There was a difference of 6 points between them and a significant difference was found between the two groups ($p < 0.05$). This indicates that the overweight group has stronger beliefs that obesity is not under the control of individuals with obesity compared to the non-overweight group ($p = 0.032$). Although there was a high difference in T-ATOP scores between the two groups, no significant difference was found ($p > 0.05$).

Table 4.9. Comparison of all scores in 2 groups of 4th-grade students

	Non-overweight (n=47) Mean ± S.D. (min. – max.)	**Overweight (n=5)** Mean ± S.D. (min. – max.)	**Significance** p
WBIS-M Total Score	2.32 ± 1.32 (1.00 – 5.60)	2.42 ± 1.72 (1.00 – 4.90)	**0.827**
FP Total Score	3.20 ± 0.34 (2.50 – 3.86)	3.14 ± 0.26 (2.86 – 3.50)	**0.732**
T-BAOP Total Score	18.62 ± 4.29 (9 – 29)	17.60 ± 8.96 (2 – 24)	**0.657**
T-ATOP Total Score	72.17 ± 16.76 (32 – 104)	71.60 ± 14.43 (54 – 88)	**0.942**

In Table 4.9., two BMI groups of 4th-grade students were examined. All scores were close to each other in both groups. There was no significant difference in both groups for each value ($p > 0.05$).

Table 4.10. Comparison of all scores in 2 groups of Master grade students

	Non-overweight (n=35) Mean ± S.D. (min. – max.)	**Overweight (n=6)** Mean ± S.D. (min. – max.)	**Significance** p
WBIS-M Total Score	1.42 ± 0.55 (1.00 – 3.10)	2.33 ± 0.93 (1.00 – 3.40)	**0.015**
FP Total Score	3.25 ± 0.52 (1.71 – 4.14)	3.30 ± 0.39 (2.86 – 3.86)	**0.911**
T-BAOP Total Score	19.69 ± 4.13 (13 – 30)	18.33 ± 6.28 (10 – 26)	**0.497**
T-ATOP Total Score	72.97 ± 16.45 (31 – 105)	73.83 ± 8.13 (65 – 84)	**0.901**

Table 4.10. shows the score comparisons of Master's Grade students in both BMI values. The overweight group had a higher WBIS-M score compared to the non-overweight group and there was a significant difference between them ($p < 0.05$). This means that the internalized weight biases of the overweight group are more severe on the negative side ($p = 0.015$). Both groups have a mild fat-phobic attitude, but there is no significant difference between them ($p > 0.05$).

Table 4.11. The total scores of the FP according to the client with obesity and normal weight

	Client with Obesity (n=77) Mean ± S.D. (min. – max.)	**Client with Normal Weight (n=71)** Mean ± S.D. (min. – max.)	**Significance** p
FP Total Score	**3.35 ± 0.35** (2.64 – 4.14)	**3.08 ± 0.39** (1.71 – 3.86)	**0.000**

Table 4.11. shows the comparison between the FP score and the 2 client samples. A significant difference was found between the two groups. Fat-phobic attitude towards the client with obesity shows a significant relationship compared to the fat-phobic attitude towards the client with normal weight ($p = 0.000$, $p < 0.05$).

Table 4.12. Comparison of scores in all groups according to participant with obesity and normal weight

	Participant with Overweight (n=15) Mean ± S.D. (min. – max.)	**Participant with Non-overweight (n=133)** Mean ± S.D. (min. – max.)	**Significance** p
WBIS-M Total Score	**2.68 ± 1.84** (1.00 – 7.00)	**2.12 ± 1.44** (1.00 - 7.00)	**0.374**
FP Total Score	**3.20 ± 0.29** (2.86 – 3.86)	**3.22 ± 0.40** (1.71 - 4.14)	**0.602**
T-BAOP Total Score	**20.20 ± 7.80** (2 – 34)	**19.26 ± 4.86** (9 – 38)	**0.333**
T-ATOP Total Score	**70.47 ± 13.26** (44 – 88)	**70.76 ± 14.97** (31 – 105)	**0.992**
Carbohyhdrate Intake Score	**3.46 ± 1.06** (1.00 – 5.00)	**3.48 ± 0.81** (1.00 – 5.00)	**0.827**
Protein Intake Score	**3.26 ± 0.96** (2.00 – 5.00)	**3.39 ± 0.67** (2.00 – 5.00)	**0.628**
Fat Intake Score	**3.00 ± 0.65** (2.00 – 4.00)	**3.32 ± 0.70** (1.00 – 5.00)	**0.088**
Weight Score	**3.53 ± 0.74** (3.00 – 5.00)	**3.99 ± 0.69** (3.00 – 5.00)	**0.015**
Diet Quality Score	**2.86 ± 0.63** (2.00 – 4.00)	**2.96 ± 0.72** (1.00 – 5.00)	**0.622**
General Health Status Score	**2.73 ± 0.70** (2.00 – 4.00)	**2.81 ± 0.71** (2.00 – 4.00)	**0.669**
Water Intake Score	**3.40 ± 0.91** (2.00 – 5.00)	**3.24 ± 0.93** (1.00 – 5.00)	**0.527**
Fiber Intake Score	**2.66 ± 0.72** (2.00 – 4.00)	**2.93 ± 0.85** (1.00 – 5.00)	**0.257**
Daily Energy Intake Score	**3.53 ± 0.51** (3.00 – 4.00)	**3.38 ± 0.59** (2.00 – 5.00)	**0.311**
Daily Physical Activity Status Score	**4.33 ± 0.72** (3.00 – 5.00)	**4.19 ± 0.66** (3.00 – 5.00)	**0.417**

Table 4.12. shows all the scores of participants with overweight and non-overweight. Non-overweight participants had a lower WBIS-M score (2.12 ± 1.44) compared to participants with overweight (2.68 ± 1.84). As BMI decreases, weight

internalization decreases, but no significant difference was found between them (p =0.374, p > 0.05).

Participants in both BMI classes have a mild FP score. The FP score of the overweight group in the study was 3.20, and the non-overweight group was 3.22, but no significant difference was observed between them (p = 0.602).

When we look at the weight score, the non-overweight group scored higher weight loss advice compared to the overweight group, and a significant difference was found between them (p= 0.015, p < 0.05). This is an example of the fat-phobic attitude indicator of the non-overweight group.

As another example of a fat-phobic attitude, the non-overweight group has a higher score for reducing fat intake (3.32 ± 0.70) when compared to the overweight group (3.00 ± 0.65). However, no significant difference was found between them (p = 0.088).

Table 4.13. Percentage distributions of Carbohydrate Intake, Protein Intake, Fat Intake and Weight for Clients with Obesity and Normal Weight

		Carbohydrate Intake		Protein Intake		Fat Intake		Weight	
		With Obesity	With Normal Weight	With Obesity	With Normal Weight	With Obesity	With Normal Weight	With Obesity	With Normal Weight
Definitely Reduced	%	14.3	5.6	0	0	6.5	0	41.6	1.4
Reduced		46.8	29.6	10.4	8.5	33.8	31.0	53.2	46.5
Undecided		29.9	54.9	40.3	52.1	54.5	54.9	5.2	52.1
Increased		9.1	7.0	44.2	38.0	5.2	12.7	0	0
Definıtely Increased		0	2.8	5.2	1.4	0	1.4	0	0

Table 4.13. shows the percentages for carbohydrate, protein, fat intake and weight for both clients. Although the carbohydrate intake was the same in the two clients, it was stated that it should definitely be reduced by 14.3% in the clients with obesity, while this rate was 5.6% in the clients with normal weight. Considering protein intake, although protein intakes are the same in both clients, it should be increased by 1.4% in the clients

with normal weight, while this rate is 5.2% in clients with obesity. Considering the fat intake, it should be reduced by 6.5% in the clients with obesity, while this rate is 0% in clients with normal weight.On the contrary, fat intake is increased by 12.7% in clients with normal weight.Weight should definitely be reduced by 41.6% in clients with obesity, while this rate is 1.4% in clients with normal weight.A fat-phobic attitude was revealed by recommending a weight loss of 41.6% to the client diagnosed with lactose intolerance and did not demand weight loss because she was only in the with obesity BMI range.

Table 4.14. Percentage distributions of Diet Quality, General Health Status, Water Intake and Fiber Intake For Clients with Obesity and Normal Weight

		Diet Quality		General Health Status		Water Intake		Fiber Intake	
		With Obesity	With Normal Weight	With Obesity	With Normal Weight	With Obesity	With Normal Weight	With Obesity	With Normal Weight
Very Bad	%	1.3	0	0	0	10.4	1.4	3.9	0
Bad		28.6	11.3	32.5	1.4	45.5	31.0	33.8	14.1
Neither Good nor Bad		58.4	47.9	50.6	40.8	27.3	38.0	31.2	42.3
Good		11.7	39.4	16.9	57.7	15.6	26.8	31.2	42.3
Very Good		0	1.4	0	0	1.3	2.8	0	1.4

Table 4.14. shows the percentages for diet quality, general health status, water consumption and fiber intake for both clients. Although the dietary patterns were the same in both clients, the diet quality of the client with obesity was marked as very bad by 1.3%, while the quality of the diet by the client with normal weight was marked as very good by 1.4%. Although the water consumption was stated as 1.5 L for both clients, the water consumption for the client with normal weight was marked as very bad by 1.4%, while the water consumption for the client with obesity was marked as very bad by 10.4%. Although the fiber intake of both clients is equal, 3.9% of the client with obesity fiber intake is called very bad, while the fiber intake of the client with normal weight is 1.4% as very good.

Table 4.15. Percentage distributions of Daily Energy Intake and Daily Physical Activity Status for Clients with Obesity and Normal Weight

	Daily Energy Intake		Daily Physical Activity Status	
	With Obesity	With Normal Weight	With Obesity	With Normal Weight
	%	%	%	%
Too Less	0	0	44.2	25.4
Less	5.2	1.4	45.5	56.3
No more or less	49.4	62.0	10.4	18.3
More	44.2	33.8	0	0
Too More	1.3	2.8	0	0

Table 4.15. shows the percentages for daily energy intake and daily physical activity status for both clients. Although the daily physical activity levels of both clients were stated as sedentary, the daily physical activity of the client with normal weight was marked as very low by 25.4%, while the daily physical activity level of the client with obesity was marked as very low by 44.2% because she was only overweight.

5. DISCUSSION

Stigmatization of people who are overweight or with obesity, i.e. people perceived as having excessive weight, is common around the world (70). Individuals who are overweight or with obesity are often stereotyped as lacking willpower and self-control, lazy, unattractive, and less competent compared to individuals of lower weight. This type of prejudice results in discrimination based on the weight in education, health care, employment, and everyday relationships. When examined at the population level based on cumulatively progressive evidence, it is stated that being exposed to weight stigma is a risk factor for the deterioration of psychological well-being, delaying and decreasing health protective and improving behaviors, increasing chronic stress markers, and gaining weight over time (71). The literature showing that this weight-related stigma is quite common in the health sector has shown that this situation does not only affect doctors and therapists but also includes all professionals who provide services for individuals with overweight and obesity (46,54).

The literature findings suggest that dietitians, who play a very important role in the treatment of obesity, are also prone to this stigma related to weight (53). In light of all this, it is very valuable to measure the status of the weight internalization status of dietetics students in our country and to try to understand the effect of their internalization status on the dietetic approach, attitudes, and beliefs they follow toward people with obesity. As dietetics students, the extent to which weight internalization affects fat-phobic attitudes has not been examined in our country.

This study was completed with the participation of 148 students in total at Yeditepe University Nutrition and Dietetics Department with 3rd-grade (n= 55) students, 4th-grade (n= 52) students and Master's grade (n= 41) students. The average BMI of students in all grades is in the normal range. The average BMI value of the participants in the study is 21.11, and the BMI value is in the normal weight range when looking at each education level. While 3rd grade students showed the highest score in WBIS-M , master students showed the lowest score. The significant positive correlation that observed between BMI and WBIS-M score of the students shows us that the BMI of dietetics students increases, and their weight bias internalization scores increases, simultaneously. To our knowledge, since there is no other study comparing BMI and WBIS-M among dietitian in the literature, the positive relationship found in the study is very valuable.

In the study, when the FP mean score was compared at all 3 education levels, master students (3.26±0.50) showed the highest value and 4th grade students (3.19±0.33) showed the lowest score. A fat-phobic attitude was found at the same level in all education levels. All students in the study, regardless of education level, exhibited a mild fat-phobic attitude (mean FP score =3.22). However, when the 3 education levels were compared with the FP score, no significant difference was found between them ($p = 0.2$, $p > 0.05$). In another study conducted among nutrition and dietetics students in Mexico with the participation of 634 participants from all education levels, reported the FP score of the students was 3.45 ± 0.69, and it was reported that they exhibited a moderate level of fat-phobic attitude (72). While only 12% of the students participating in the study in Mexico had a neutral and positive (≤ 2.50) attitude towards obesity, 88% of all students had a negative (≥ 2.50) attitude. There were no significant differences between the students participating in the study and their school grades, weight status, or contact with people with overweight or obesity (72). A study conducted in Ohio with 38 nutrition and dietetics students and 38 age-matched non-nutrition and dietetics students investigated whether there was a difference between the two groups' fat-phobic attitudes. The mean score of the dietetic departments was 3.66, and the mean score of the non-dietethical departments was 3.69, and there was no significant difference between the two groups whose overall scores were compared. Although there was no significant difference between the mean scores of Nutrition and Dietetics students and non-dietetical departments, various differences were observed when evaluating some adjectives. As an example of these, non-dietetics departments had stronger views that they thought individuals with overweight and obesity did not have low 'resilience' and 'self-esteem.' Nutrition and Dietetics students scored more strongly that overweight individuals were 'self-conscious.' However, this study found no difference in overall attitudes (73). The findings in this study argue that nutrition and dietetics education does not promote a prejudice such as fat phobia, it states that the whole society exhibits this prejudiced attitude rather than a certain specific group. In addition, this study reported that dietetics education did not reduce this prejudiced attitude among nutrition and dietetics students, and that this may affect treatment approaches for individuals with overweight or obesity in the future (73). Attitudes about obesity were not associated with dietary intake and body fat percentage, so underweight, normal, or overweight students displayed similarly negative attitudes. Some studies comparing attitudes towards obesity and body composition have examined the effect of BMI values and reported that it had no effect on the BMI value (74,75), while some others

reported that lower BMI values were associated with more negative attitudes toward obesity (66,76). In the study conducted by De Costa Cori et al., 2015 examining weight bias among dietitians using cross-sectional designs, participants found a high prevalence of weight bias reported by dietitians who described individuals with obesity as greed (67.4%), clumsiness (55.1%), unattractiveness (52%), laziness (42.3%), and lack of willpower (53.6 %) (77). Hellbardt et al., 2014 reported that dietitians (n=49) with a mean FP score of 3.35 evaluated an overweight person negatively when compared to a normal-weight person (78). Mc Arthur et al.,1997 in their study, stated that dietitians (n=23) reported ambivalent attitudes toward overweight clients (57). In the study conducted by Bacardi et al., 2015 which included 630 nutrition and dietetics students in total, the average score of the students determined using the FPS was found to be 3.45, and it was reported that the majority of the dietetics students (88%) had a moderate fat phobia. Only 1.4% of the participants in the study showed positive or neutral attitudes toward individuals with overweight or obesity (72).

In this study, the T-BAOP was used, which measures participants' beliefs about individuals with obesity. The high mean score obtained by the participant from this scale indicates that they have strong beliefs that obesity is not under the control of individuals with obesity (34). Even though no significant difference was found when T-BAOP score was compared with the three education levels, 3rd-grade students have the highest value and the lowest value was observed in 4th-grade students. However, a significant negative correlation was found between FP score and T-BAOP score; as FP score increases, T-BAOP score decreases, which means that with the increase in fat phobic attitude, the idea that obesity is under individual's own control becomes stronger. The FPS and the BAOP were used to measure the weight biases of students in a study conducted in the UK, which included 1130 students and included students in nursing, medicine, nutrition, and dietetics (79). The mean BAOP score of the participants in the study was found to be 13.4. It was found that registered nursing students in the study believed that obesity was less under the individual's control compared to nutrition and dietetics and medical students. The mean FP score of the participants in this study is 3.8 (moderate fat phobia), which is higher than the findings of the present study. Only 1.4% of the participants in the study expressed positive or neutral attitudes (fat phobia score ≤ 2.50), while 10.5% exhibited high fat phobia (fat phobia score ≥ 4.4). Contrary to our findings, significant differences were found in the FP score among Dietetics and Nursing students according to years of

education. Final year Dietetics and Nursing students showed lower FP scores compared to first-year Dietetics and Nursing students. In addition, FP scores were significantly associated with age and BMI but not with gender (79), but in our study, no significant correlation was observed between FP score and BMI.

Another study involving 322 public health students reported considerably higher WBIS-M (3.12) and BAOP (22.89) scores than our findings (80). Moreover, they reported a significant difference in BAOP and WBIS-M scores by sex, individuals who self-identified as male had a higher BAOP score compared to individuals who identified themselves as female (BAOP score = 23.25 vs. 20.68, $p = 0.03$), meaning that the men in the study believed that obesity was not under the control of individuals with obesity. However, male students had higher WBIS-M score. Students who perceived themselves as having a higher weight status were found to have higher weight bias internalization (4.12 vs 2.74, $p < 0.001$), and they had higher food insecurity (3.53 vs. 3.02, $p < 0.01$) (80).

Findings from our study should be evaluated with weight bias among other healthcare trainees and the general population. The mean T-BAOP scores in our study were found to be 20.05 ± 6.03 in 3rd-grade students, 18.52 ± 4.79 in 4th-grade students, 19.49 ± 4.43 in master students, and, compared to studies in the literature, dietetics students in Turkey have stronger beliefs that obesity is caused by environmental and genetic factors beyond one's own control. The average score of BAOP for nursing students in Turkey is 17.4, the average score for registered nurses is 15.4 (81), the average score for psychology students in Mexico is 18.6, the average score for medical students is 16.6 (82), and the average score for nursing students in America is 17.2 (83).

In our study, the T-ATOP was used to score students' attitudes toward people with obesity. In the study conducted, the mean score of the 3rd year students was 67.65 ± 12.10, the average score of the 4th-grade students was 72.12 ± 16.42, and the mean score of the master students was 73.10 ± 15.44. The higher the education level, the higher the score indicates positive attitudes towards individuals with obesity. However, no significant correlation was found between 3 education levels and T-ATOP score ($p = 0.143$, $p > 0.05$). In a study published in 2022 and conducted with the participation of 158 dietitians, the total average attitude score was found to be neutral to positive, with scores above the midpoint (56). Looking specifically at the items on the scale, participants agreed that individuals with obesity were thought to be less likely to be successful

workers ($p < 0.01$); other people were thought to be less likely to want to marry them ($p < 0.01$); people will be more likely to be uncomfortable interacting with them ($p < 0.01$); they feel more ashamed of their weight ($p = 0.001$); said that they could not expect to live a normal life ($p < 0.01$). These items, which were evaluated as the most positive in the study, describe individuals with overweight or obesity as being away from social difficulties. In addition, when the most negatively scored items in the aforementioned study are examined, there are items summarizing the decrease in self-esteem, sexual attractiveness and health perceptions (56).

In our study, a negative correlation was found between FP and T-ATOP scores indicating that the T-ATOP score decreases with the increase in the FP score; in short, the positive attitudes towards individuals with obesity decrease with the increase in the fat-phobic attitude. It shows parallelism with the negative ratings in the themes of 'self esteem', 'social difficulties', and 'attractiveness/personal appeal' in the other study (56). When we evaluated the dietetics students in our study with the health care interns and the general population in the literature, the 3rd-grade dietetics students exhibited the lowest mean T-ATOP score (mean T-ATOP score = 67.65). The mean T-ATOP score of psychology students in Mexico is 75.6, and the mean score of medical students is 69.6 (82). The mean T-ATOP score of nursing students in the USA is 68.52, the mean score of social work students is 77.32, with the highest score being 77.32, and the mean score of education students is 71.46 (83).

In our study, we used two hypothetical case samples diagnosed with lactose intolerance in order to understand whether the weight level is effective on the nutritional approaches of dietetics students during treatment. In a study (84), in parallel with our findings, vignette with obesity was suggested to reduce body weight ($p < 0.01$). When macronutrient consumption was examined, the recommendation of vignette with obesity to reduce fat ($p < 0.001$) and carbohydrate ($p < 0.005$) intake showed the same emphasis as our study. In this study, as another example of fat phobic attitude, increasing protein intake is higher than vignette with obesity ($p < 0.001$). Although diet quality and general health status were the same in both samples, vignette with obesity was interpreted as worse in this study, as it was seen in our study ($p < 0.01$). In our study, FP showed a significant difference when compared between FP score and two case samples ($p = 0.000$, $p < 0.05$), which supports this significant difference in this study (84). Likewise, the mean FP score in this study (84) was found to be 3.3 ± 0.5 and showed a universe with the same

level of fat phobic score as our study. When we look at another study using 4 different hypothetical case examples (Overweight women, Normal weight women, Overweight man, Normal weight man), in parallel with our study, the energy intake amount, diet quality and general health status of the female sample with obesity were compared with the sample of women without obesity rated it worse (85). These findings are very important because although the objective findings of the samples, such as diet patterns and blood parameters, were the same, they resulted in a worse interpretation of individuals with obesity. In addition, the participants in this study reported that they should display more strict attitudes towards individuals with obesity of both sexes, that they find overweight individuals more annoying and boring, and that they need more patience when dealing with these people (85). In another study using 4 hypothetical cases (Female with normal weight, Female with obesity, Male with normal weight, Male with obesity), the FP score was negatively correlated with perceptions of diet quality only for the female patient with obesity, indicating that students with higher fat-phobia rated the diet quality of the female sample with obesity worse ($p < 0.05$) (15). Examining samples with obesity first, students reported that samples with obesity were less likely to follow treatment recommendations ($p = 0.02$), had worse diet quality ($p = 0.03$), and had worse health status ($p = 0.001$) compared to samples with non-obesity. These assessments are in line with research by health professionals that support individuals with overweight and obesity to be less healthy and have poor eating habits (58,60). Although obesity increases the risks of various health problems, BMI alone is not an accurate indicator of health, and there are studies supporting that, individuals with obesity and fit can also be (61,62,86-89). Some students may have interpreted their diet quality worse because they thought that individuals with obesity could underestimate their calorie intake and dietary information. However, studies show that this underestimation can be done by individuals in every weight range (90-92). Such prejudices may cause people to feel judged when they consult to be healthy or to keep their health parameters within the healthy range.

Puhl et al., 2014 reported in their study that older professionals who have more experience in the treatment of obesity with the years spent in the field show less weight bias compared to younger professionals, but they also reported that this is not only related to experience but also that age may be an important factor at this point (65). However, when we look at the obesity belief scale scores with increasing dietetic experience at 3 education levels in our study, there was no high difference between the scores in all 3

groups, and no significant difference was found between them ($p = 0.310$, $p < 0.05$). Looking at the study conducted by Schwartz et al., 2003 the results reported that young adults are more affected by the pressure to be fit, which has increased in recent years (42). In addition, it has been reported that weight bias towards individuals with obesity may result from immaturity and lack of life experience. Various studies have also been conducted to support this statement (78,79). In contrast, some studies have shown that age (57) and work experience or education (57,76) have no effect on weight bias.

In an attempt to reduce the weight bias we mentioned, it was conducted by first distributing a pre-intervention questionnaire followed by a short 20-minute training video, and finally, a questionnaire immediately after the intervention (93). The study includes 147 people. The aim of this study is to measure whether a short training video would be sufficient to reduce dietitians' explicit and implicit weight bias. This video focused on why weight is not completely under one's control and the uncontrollable etiological causes of obesity and overweight. However, this study failed to detect a significant effect of the attribution theory-based video intervention on the weight bias of dietitians in practice. It was stated that the reason for this was that more than 30% of the participants had previously received weight bias training, and the intervention may have had a less overall impact. For this reason, different approaches may be required to reduce the weight bias of dietitians during practice.

Contrary to studies focusing on the concept of Metabolically Healthy Obesity, studies (94,95) indicate that follow-up time is a critical element in evaluating future events. In the study of Arnlöv et al., 2010 (96) with the longest follow-up period (30 years), an increased incidence of cardiovascular events occurred approximately 10 years later in participants with metabolically healthy obesity and overweight. Similarly, a previous report (94) observed that individuals with metabolically healthy obesity had an increased risk for incident hypertension that was not apparent after 4 years of follow-up; it emerged only after 8 years. Although these clinical outcomes occurred only after long-term follow-up, it should be noted that, regardless of metabolic status, excess weight is associated in the short term with subclinical vascular disease, including impaired vasoreactivity, abnormalities in left ventricular measures, chronic inflammation and increased carotid artery intima–media thickness and coronary calcification (95). Taken together, these data suggest a model in which excess weight is associated initially with the development of subclinical metabolic and vascular dysfunction that ultimately leads

to an increased incidence of cardiovascular events and mortality over the long term. Even within the same category of metabolic status (healthy or unhealthy), certain cardiovascular risk factors (blood pressure, waist circumference, insulin resistance) have been shown to increase progressively from normal weight to overweight and obesity. This finding challenges the idea that increased BMI may be harmless (95). For this reason, it should be recommended to improve the eating habits of the person and support weight loss.

Looking at the strengths of this study, it is the first study in Turkey to investigate the weight bias internalization of Nutrition and Dietetics students and whether this internalization will vary depending on the client's weight. In addition to this, in the literature we read, the relationship between WBIS-M and MBI was never examined in another study in addition to our study. It was also supported by multiple questionnaires measuring behaviors and beliefs toward obesity.

The major limitation of this study is the small number of male participants in the study. Due to the high number of female students in Nutrition and Dietetics training, we could not reflect the distribution of males and females in our results comparatively. In addition, while targeting a total of 43 Master's grade students, the study was completed with a total of 41 students, 2 missing.

Another limitation of the study is that we did not question the working status of the students at the Master group education level. Since experience in professional life is a factor that can affect dietetic approach and weight bias, we did not include it in our study.

CONCLUSION

In conclusion, the negative attitudes of dietitians involved in the treatment and management of obesity, which causes weight bias, are also seen in Turkey. Another important point is that as the student's weight increases, weight internalization also increases. It is one of the most important indicators of fat phobic attitude to give advice on weight loss to clients who come for treatment with any weight loss motive. In order to reduce this fat-phobic attitude and behavior throughout the Nutrition and Dietetics education period, small training or lessons that address the genetic and etiological factors at the root of obesity can be added to the curriculum, or students' awareness can be increased by solving more case examples within this framework before students start their

internship. In future studies, studies in which the male and female groups are equally distributed are recommended.

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7. APPENDICES

7.1. Appendix 1 : Informed Consent Form

İstanbul'da Bir Vakıf Üniversitesindeki Diyetetik Öğrencilerinin İçselleştirilmiş Kilo Önyargılarının Obezitesi Olan Bireylere Yönelik Damgalayıcı Tutum, İnanç ve Yaklaşımlarına Etkisi

Sayın Katılımcı,

İstanbul'da Bir Vakıf Üniversitesindeki Diyetetik Öğrencilerinin İçselleştirilmiş Kilo Önyargılarının Obezitesi Olan Bireylere Yönelik Damgalayıcı Tutum, İnanç ve Yaklaşımlarına Etkisi adlı bu çalışma Dr. Öğr. Üyesi İrem Kaya Cebioğlu danışmanlığında, İstanbul Yeditepe Üniversitesi Sağlık Bilimleri Fakültesi Beslenme ve Diyetetik bölümü yüksek lisans öğrencisi Dyt. Derya Gökçen Üstün tarafından yürütülen bir araştırmadır.

Bu araştırmada yer almayı kabul etmeden önce, araştırmanın ne amaçla yapılmak istendiğini anlamanız gerekmektedir. Aşağıdaki bilgileri lütfen dikkatlice okuyunuz, sorularınız olursa sorunuz ve açık yanıtlar isteyiniz.

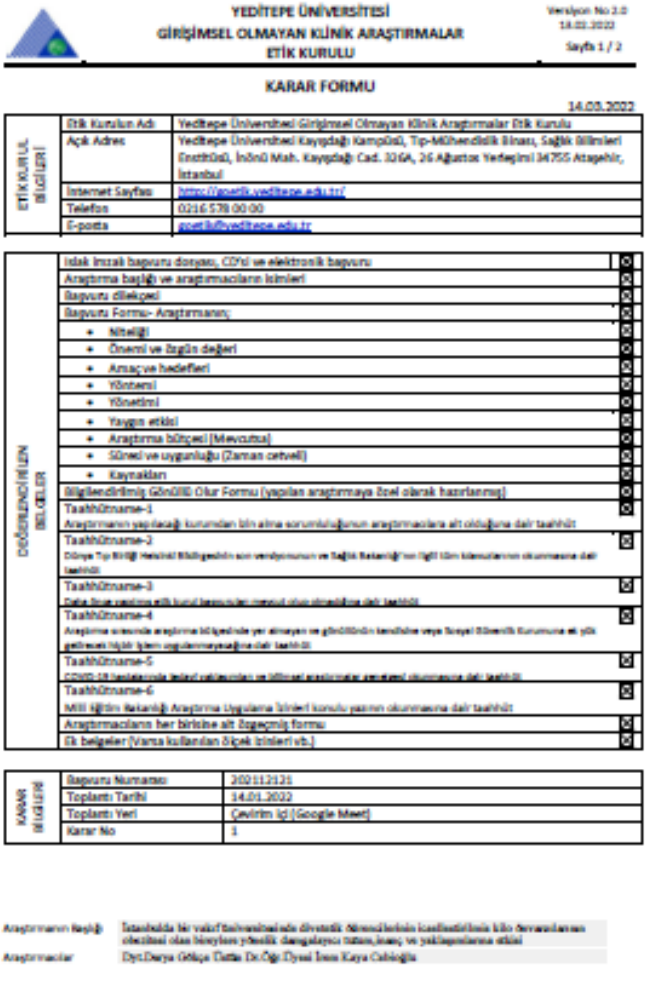
Bu araştırma diyetetik öğrencilerinin eğitim düzeyinin artmasıyla birlikte kilo içselleştirme durumlarının ölçülmesi ve kilo içselleştirme durumunun diyetetik yaklaşım, kilo-fobik tutum, obezitesi olan bireylere yönelik tutum ve inanışları üzerinde etkisinin var olup olmadığını incelemeyi amaçlamaktadır.

Elde edilen verilerle diyetisyen adaylarında içselleştirilmiş kilo fobi düzeylerinin diyetetik uygulamalarını ne düzeyde etkilediğine dair farkındalık oluşturulacaktır. Araştırma için etik kurul ve diğer tüm gerekli yasal izinler alınmıştır. Bu araştırma, Yeditepe Üniversitesi Beslenme ve Diyetetik lisans ve yüksek lisans programında kayıtlı, 18 yaş ve üzeri gönüllü olarak katılmak isteyen öğrenciler ile yapılacaktır. Bu araştırmaya tahmini olarak 137 gönüllü katılacaktır. Sizden bu çalışmada verilen anket formunu doldurmanız istenmektedir. Soruları cevaplamanız yaklaşık olarak 20 dakika sürecektir. Bunun size ve yakınlarınıza hiçbir zararı olmayacaktır. Çalışmada kesinlikle yaşadıklarınız (özeliniz) sorulmayacaktır. Genel olarak eğitim düzeyinizin artması sonucunda değişen kilo-fobik yaklaşımınızın diyetetik uygulama tutumlarınıza nasıl yansıdığı incelenecektir. Araştırmada alınacak tüm bilgiler araştırma kapsamı dışında hiçbir kişiyle kesinlikle paylaşılmayacaktır. Elde edilecek olan bilgiler, Etik Kurul, kurum ve diğer sağlık otoritelerinin orijinal tıbbi kayıtlarına doğrudan erişimleri olacaktır. Fakat bu gönüllü onam formunun imzalanmasıyla bu bilgiler gizli tutulacaktır. Bu çalışmaya katılmak tamamen gönüllülük esasına dayanmaktadır. Bu çalışmada yer almanız nedeniyle size hiçbir ödeme yapılmayacaktır, sizden veya bağlı bulunduğunuz sosyal güvenlik kuruluşundan hiçbir ücret istenmeyecektir. Gerek duyduğunuz tüm bilgileri istemeye ve doğru, açık, anlaşılır bilgi almaya hakkınız vardır. Gerekli gördüğü takdirde araştırmanın herhangi bir kısmında katılımcı araştırmadan çıkabilir, araştırmacı çalışmayı sonlandırabilir. Araştırmanın tüm aşamalarında kimlik bilgileriniz gizli tutulacaktır. Araştırma sonuçlarının yayımlanması halinde dahi gönüllünün kimliği gizli kalacaktır. Araştırma kapsamında elde edilen bilgiler bilimsel amaçlarla, gizlilik kurallarına uymak kaydıyla, kullanılabilir, sunulabilir ve yayınlanabilir. Araştırma ile ilgili daha fazla bilgiye ihtiyaç duyarsanız araştırmacıya deryagokcen.ustun@std.yeditepe.edu.tr e-posta adresi üzerinden veya 05342263831 numaralı telefondan ulaşabilirsiniz.

"Bilgilendirilmiş Gönüllü Olur Formundaki tüm açıklamaları okudum. Bana, yukarıda konusu ve amacı belirtilen araştırma ile ilgili açıklamalar, yukarıda adı belirtilen sorumlu araştırmacı tarafından yapıldı. Araştırmaya gönüllü olarak katıldığımı, istediğim zaman gerekçeli veya gerekçesiz olarak araştırmadan ayrılabileceğimi biliyorum. **Bu çalışma sonuçlarının kullanılmasını kısıtlamamayı, yayın, rapor ve benzeri bilimsel dokümanlarda kullanılmasını kabul ediyorum. Söz konusu araştırmaya, hiçbir baskı ve zorlama olmaksızın kendi rızamla katılmayı onaylıyorum."**

Gönüllünün;	Araştırmacının;	Varsa Tanıklık Eden Kişinin;
Adı-Soyadı:	Adı-Soyadı:	Adı-Soyadı:
İmzası:	İmzası:	İmzası:
Tarih:	Tarih:	Tarih:
Adres:	Adres:	Adres:
Telefon Numarası:	**Telefon Numarası:**	**Telefon Numarası:**

7.2. Appendix 2 : Ethical Approval



YEDİTEPE ÜNİVERSİTESİ
GİRİŞİMSEL OLMAYAN KLİNİK ARAŞTIRMALAR
ETİK KURULU

Versiyon No:2.0
14.03.2022
Sayfa 1 / 2

KARAR FORMU

14.03.2022

ETİK KURUL BİLGİLERİ	
Etik Kurulun Adı:	Yeditepe Üniversitesi Girişimsel Olmayan Klinik Araştırmalar Etik Kurulu
Açık Adres	Yeditepe Üniversitesi Kayışdağı Kampüsü, Tıp-Mühendislik Binası, Sağlık Bilimleri Enstitüsü, İnönü Mah. Kayışdağı Cad. 32/A, 26 Ağustos Yerleşimi 34755 Ataşehir, İstanbul
İnternet Sayfası	https://goetik.yeditepe.edu.tr/
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E-posta	goetik@yeditepe.edu.tr

DEĞERLENDİRİLEN BELGELER	
Islak İmzalı başvuru dosyası, CD'si ve elektronik başvuru	☒
Araştırma başlığı ve araştırmacıların isimleri	☒
Başvuru dilekçesi	☒
Başvuru Formu- Araştırmanın;	☒
• Niteliği	☒
• Önemi ve özgün değeri	☒
• Amaç ve hedefleri	☒
• Yöntemi	☒
• Yönetimi	☒
• Yaygın etkisi	☒
• Araştırma bütçesi (Mevcutsa)	☒
• Süresi ve uygunluğu (Zaman cetveli)	☒
• Kaynakları	☒
Bilgilendirilmiş Gönüllü Olur Formu (yapılan araştırmaya özel olarak hazırlanmış)	☒
Taahhütname-1 Araştırmanın yapılacağı kurumdan bilinalına sorumluluğunun araştırmacılara ait olduğuna dair taahhüt	☒
Taahhütname-2 Dünya Tıp Birliği Helsinki Bildirgesinin son versiyonunun ve Sağlık Bakanlığı'nın ilgili tüm talimatlarının okunmasına dair taahhüt	☒
Taahhütname-3 Daha önce yapılmış etik kurul başvurusu mevcut olup olmadığına dair taahhüt	☒
Taahhütname-4 Araştırma sırasında araştırma bölgesinde yer almayan ve gönüllünün kendisine veya Sosyal Güvenlik Kurumuna ek yük getirecek hiçbir işlem uygulanmayacağına dair taahhüt	☒
Taahhütname-5 COVID-19 hastalarında tedavi çalışmaları ve ilaç/aşı araştırmaları yapılacak ise okunmasına dair taahhüt	☒
Taahhütname-6 Milli İlaç'ın Rekabetçi Araştırma Uygulama İlkeleri konulu yazının okunmasına dair taahhüt	☒
Araştırmacıların her birisine ait özgeçmiş formu	☒
Ek belgeler (Varsa kullanılan ölçek ilkileri vb.)	☒

KARAR BİLGİLERİ	
Başvuru Numarası:	202112121
Toplantı Tarihi	14.03.2022
Toplantı Yeri	Çevrim içi (Google Meet)
Karar No	1

Araştırmanın Başlığı: İstanbulda bir vakıf üniversitesinde diyetetik öğrencilerinin kardiometabolik risk faktörlerinin obezitesi olan bireylere yönelik danışanlıkçı tutum, inanç ve yaklaşımlarına etkisi

Araştırmacılar: Dyt.Derya Gökçe Tatlı Dr.Öğr.Üyesi İrem Kaya Cebioğlu

YEDİTEPE ÜNİVERSİTESİ
GİRİŞİMSEL OLMAYAN KLİNİK ARAŞTIRMALAR
ETİK KURULU

Versiyon No:2.0
14.03.2022
Sayfa 2 / 2

BAŞVURU NUMARASI: 202112121

14.03.2022

KARAR

☒ KABUL	☐ RET ☐ KAPSAM DIŞI (GİRİŞİMSEL) ☐ BİLİMSEL VE/VEYA ETİK KURALLARA AYKIRI ☐ BİR SORUMLU ARAŞTIRMACININ (TEZ DIŞI TEZ DANIŞMANI), BİR TOPLANTIYA BİRDEN FAZLA ÇALIŞMA BAŞVURUSUNDA BULUNMASI ☐ KURUM İÇİ BAŞVURULARINDA KURUMSAL E-POSTA ADRESİ İLE GİRİŞ YAPILMAMIŞ OLMASI ☐ SAATLİ KAR ULDE AN LİSTİLEN REVİZYONLARIN ZAMANINDA VE/VEYA EKSİKSİZ ŞEKİLDE YAPILMAMIŞ OLMASI

7.3. Appendix 3 : General Plan of Questionnaire

DEMOGRAFİK BİLGİ FORMU:

- Eğitim Durumunuz:

○ Lisans 3.Sınıf

○ Lisans 4.Sınıf

○ Yüksek Lisans

- Boyunuz:

_____

- Kilonuz:

_____

- Cinsiyetiniz:

○ Kadın

○ Erkek

Aşağıdaki ölçek toplam 11 maddeden oluşan ve 'Kesinlikle Katılmıyorum' ve ' Tamamen Katılıyorum' a kadar yer alan 7'li likert türünden oluşmaktadır. Lütfen soruları dikkatlice okuyup eksiksiz şekilde tamamlayınız.

	Kesinlikle Katılmıyorum	Çoğunlukla Katılmıyorum	Kısmen Katılmıyorum	Kararsızım	Kısmen Katılıyorum	Çoğunlukla Katılıyorum	Tamamen Katılıyorum
1.Kilomdan dolayı, kendimi herhangi biri kadar tam hissetmiyorum.							
2.Kilomdan dolayı diğer birçok insana göre daha az çekiciyim.							
3.Diğer insanların kilom hakkındaki düşüncellerinden dolayı endişeliyim.							
4.Keşke kilomu büyük bir oranda değiştirebilsem.							
5.Ne zaman kilom aklıma gelse kendimi depresif hissediyorum.							
6.Kilomdan dolayı kendimden nefret ediyorum.							
7. Kilom bir birey olarak kendime değer biçmemde önemli bir etkendir.							
8.Kilomdan dolayı sosyal yaşantımı dolu dolu yaşamaya hakkım olduğunu düşünmüyorum.							
9.Kilom istediğim gibi olunca ben de iyi olacağım.							
10. Kilomdan dolayı gerçek benliğimi hissetmiyorum.							
11.Kilomdan dolayı, çekici biri benimle nasıl çıkmak ister anlayamıyorum.							

Aşağıda size hekiminizin "PRİMER LAKTOZ İNTOLERANSI" tanısı koyarak yönlendirdiği hastanızın profilini görmektesiniz. Lütfen hastanın antropometrik verilerini, diyet örüntüsünü ve biyokimyasal bulgularını dikkatlice inceleyiniz.

Antropometrik Bulgular

Yaş:	32
Kilo:	61. 4 kg
Boy:	1.63 m
BKİ:	23. 1 kg/m^2

Diyet Örüntüsü
(24 Saatlik besin tüketim kaydı alınarak hesaplanmıştır.)

Besin Grubu	Değişim Miktarı
Ekmek/Tahıl	7
Meyve	4
Sebze	3
Süt ve Diğerleri	3
Et Grubu	5
Yağ	4
Şeker	40 gr
Posa	20 gr
Toplam Kalori Alımı	1867 kcal
Su Tüketimi	1. 5 L
Aktivite Düzeyi	Sedanter

Biyokimyasal Bulgular

Kan Basıncı	110/80 mm Hg
Total Kolesterol	180 mg/dl
HDL	60 mg/dl
LDL	120 mg/dl
Açlık Kan Şekeri	89 mg/dl

Aşağıda size hekiminizin "PRİMER LAKTOZ İNTOLERANSI" tanısı koyarak yönlendirdiği hastanızın profilini görmektesiniz. Lütfen hastanın antropometrik verilerini, diyet örüntüsünü biyokimyasal bulgularını dikkatlice inceleyiniz.

Antropometrik Bulgular

Yaş:	32
Kilo:	82. 9 kg
Boy:	1.63 m
BKİ:	31. 2 kg/m^2

Diyet Örüntüsü
(24 Saatlik besin tüketim kaydı alınarak hesaplanmıştır.)

Besin Grubu	Değişim Miktarı
Ekmek/Tahıl	7
Meyve	4
Sebze	3
Süt ve Diğerleri	3
Et Grubu	5
Yağ	4
Şeker	40 gr
Posa	20 gr
Toplam Kalori Alımı	1867 kcal
Su Tüketimi	1. 5 L
Aktivite Düzeyi	Sedanter

Biyokimyasal Bulgular	
Kan Basıncı	110/80 mm Hg
Total Kolesterol	180 mg/dl
HDL	60 mg/dl
LDL	120 mg/dl
Açlık Kan Şekeri	89 mg/dl

Aşağıda PRİMER LAKTOZ İNTOLERANSI'na ve ilişkili semptomlara yönelik genel beslenme müdahaleleri belirtilmiştir.

- Profilde gördüğünüz danışanınıza yapacağınız diyet tedavisinde aşağıdaki önerilerde olan yaklaşımınızı belirtiniz. *

	Kesinlikle katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle katılıyorum
Bütün Süt ve Süt Ürünleri Diyetten Çıkarılmalı					
Hasta Kalsiyum Alımı ve Oluşabilecek Yetersizlik Açısından İzlenmelidir					
Laktozla İşleme Tutulmuş Gıdalar (Laktozsuz süt vb.) Kullanılmalı					
Probiyotik Supleman Takviyesi					
Süt Yerine Süt Alternatifleri (Yoğurt, Peynir vb.) Kullanılmalı					

- Profilde gördüğünüz danışanınıza yapacağınız diyet tedavisinde aşağıdaki önerilere olan yaklaşımınızı belirtiniz.

	Kesinlikle azaltılmalı	Azaltılmalı	Kararsızım	Artırılmalı	Kesinlikle Artırılmalı
Karbonhidrat Alımı					
Protein Alımı					
Yağ Alımı					
Ağırlık					

- Profilde danışmanlığını yaptığınız danışanınızın genel beslenme ve sağlık durumunu değerlendiriniz.

	Çok kötü	Kötü	Ne iyi ne kötü	İyi	Çok iyi
Diyet Kalitesi					
Genel Sağlık Durumu					
Su Tüketimi					
Lİf Alımı					

- Profilde danışmanlığını yaptığınız danışanınızın enerji alımı ve fiziksel aktivite durumunu değerlendiriniz.

	Çok az	Az	Ne az ne fazla	Fazla	Çok fazla
Günlük Enerji Alımı					
Günlük Fiziksel Aktivite Düzeyi					

Profilde gördüğünüz danışanınızı tanımlayabilmeniz için aşağıda 14 adet sıfat çifti verilmiştir. Verilmiş sıfat çiftlerinden hangisi danışanınızın sizde bıraktığı izlenimi ve ona karşı tutumunuzu daha iyi yansıtıyorsa ona yakın olan kutucuğu işaretleyin. *

Tembel:	○ ○ ○ ○ ○	Çalışkan:
İsteksiz:	○ ○ ○ ○ ○	İstekli:
Çekici:	○ ○ ○ ○ ○	Çekici Olmayan:
Özkontrollü:	○ ○ ○ ○ ○	Özkontrolsüz:
Hızlı:	○ ○ ○ ○ ○	Yavaş:
Dayanıklı:	○ ○ ○ ○ ○	Dayanıksız:
Hareketli:	○ ○ ○ ○ ○	Hareketsiz:
Güçsüz:	○ ○ ○ ○ ○	Güçlü:
Kendi İsteklerine Düşkün:	○ ○ ○ ○ ○	Kendinden Ödün Veren:
Yemekten Hoşlanmayan:	○ ○ ○ ○ ○	Yemekten Hoşlanan:
Biçimsiz (Vücudu):	○ ○ ○ ○ ○	Biçimli (vücudu):
Az yiyen:	○ ○ ○ ○ ○	Çok Yiyen:
Kendine Güvenen:	○ ○ ○ ○ ○	Kendine Güvenmeyen:
Özsaygısı Düşük:	○ ○ ○ ○ ○	Özsaygısı Yüksek:

Aşağıdaki ölçek toplam 8 maddeden oluşan 'Kesinlikle Katılmıyourm' ve 'Kesinlikle Katılıyorum' a kadar yer alan 6'lı Likert türünden oluşmaktadır.

Lütfen soruları dikkatlice okuyup eksiksiz şekilde tamamlayınız.

	Kesinlikle Katılmıyorum	Çoğunlukla Katılmıyorum	Biraz Katılmıyorum	Biraz Katılıyorum	Çoğunlukla Katılıyorum	Kesinlikle Katılıyorum
1.Obezite çoğunlukla, sevgi ya da ilgi eksikliğini telafi etmek amacıyla yemek yenildiğinde ortaya çıkar.						
2.Birçok olguda obezite, biyolojik bir hastalığın sonucudur.						
3.Obezite genellikle aşırı yemek yeme nedeniyle ortaya çıkar.						
4.Obez bireylerin birçoğunun sorunları, yeterli egzersiz yapmadıkları için ortaya çıkmaktadır.						
5.Obez bireylerin birçoğu, obez olmayan bireylerden daha fazla yer.						
6.Obezite nedeni obez bireylerin büyük çoğunluğunun kötü beslenme alışkanlıklarının olmasıdır.						
7.Obezite nadiren irade eksikliğinden kaynaklanır.						
8.Bazı bireylerin ilaç, madde bağımlısı olduğu gibi bazı bireyler de yiyecek bağımlısı olabilir ve bu bireylerde obezite meydana gelir.						

Aşağıdaki ölçek toplam 20 maddeden oluşan 'Kesinlikle Katılmıyourm' ve 'Kesinlikle Katılıyorum' a kadar yer alan 6'lı Likert türünden oluşmaktadır.

Lütfen soruları dikkatlice okuyup eksiksiz şekilde tamamlayınız.

	Kesinlikle Katılmıyorum	Çoğunlukla Katılmıyorum	Biraz Katılmıyorum	Biraz Katılıyorum	Çoğunlukla Katılıyorum	Kesinlikle Katılıyorum
1.Obez bireyler obez olmayan bireyler kadar mutludur.						
2.Obez bireyler kendilerini diğer insanlar kadar başarılı hissetmezler.						
3.Obez bireylerin birçoğunun benlik bilinci kavramı diğer insanlardan fazladır.						
4.Obez çalışanlar diğer çalışanlar kadar başarılı olamayabilirler.						
5.Obez olmayan bireylerin birçoğu obez bireylerle evlenmek istemezler.						
6.Bazı obez bireyler genellikle dağınık/düzensizdir.						
7.Obez bireyler genellikle sosyaldir.						
8.Obez bireylerin birçoğu kendilerinden memnun değildirler.						
9.Obez bireyler de diğer insanlar kadar özgüvenlidir.						

	Kesinlikle Katılmıyorum	Çoğunlukla Katılmıyorum	Biraz Katılmıyorum	Biraz Katılıyorum	Çoğunlukla Katılıyorum	Kesinlikle Katılıyorum
10.İnsanların birçoğu obez bireylerle ilişliklerinde rahatsız olur.						
11.Obez bireyler çoğunlukla obez olmayan bireylerden daha az agresiftir.						
12.Obez bireylerin birçoğu obez olmayan bireylerden farklı kişiliklere sahiptir.						
13.Obez bireylerin çok az bir kısmı fazla kilolarından utanır.						
14.Birçok obez birey normal kilodaki insanlara kızar/sinirlenir.						
15.Obez bireyler obez olmayan insanlardan daha duygusaldır.						
16.Obez bireyler normal bir yaşam sürmeyi beklememelidirler.						
17.Obez bireyler obez olmayan bireyler kadar sağlıklıdır.						
18.Obez bireyler de cinsel olarak obez olmayan bireyler kadar çekicidir.						
19.Obez bireyler ailede sorun yaratmaya eğilimlidir.						
20.Bir insanın başına gelebilecek en kötü şeylerden birisi obez olmaktır.						

7.4. Appendix 4 : Curriculum Vitae

Kişisel Bilgiler

Adı	DERYA GÖKÇEN	**Soyadı**	ÜSTÜN

Öğrenim Durumu

Derece	Alan	Mezun Olduğu Kurumun Adı	Mezuniyet Yılı
Doktora			
Yüksek Lisans			
Lisans	Beslenme ve Diyetetik	**Yeditepe Üniversitesi**	2020
Lise	-		

Bildiği Yabancı Dilleri	Yabancı Dil Sınav Notu (#
İngilizce/YÖKDIL	70.000

#Başarılmış birden fazla sınav varsa(KPDS, ÜDS, TOEFL; EELTS vs), tüm sonuçlar yazılmalıdır

İş Deneyimi (Sondan geçmişe doğru sıralayın)

Görevi	Kurum	Süre (Yıl - Yıl)
Diyetisyen	Nepün İlaç Sanayi ve Ticaret Limited Şirketi	2022-2022
Diyetisyen	Mealkaline Sağlıklı Yaşam ve Sağlıklı Beslenme Endüstrisi AN	2022-2022

Bilgisayar Bilgisi

Program	Kullanma becerisi
Word	Çok İyi
Power Point	Çok İyi

*Çok iyi, iyi, orta, zayıf olarak değerlendirin