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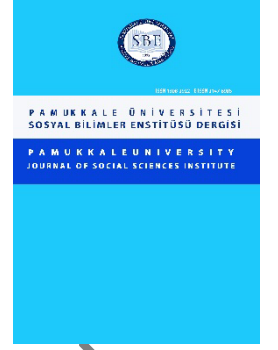
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Reflections on Physical and Sociological Transformation in Obesity Surgery Patients

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REFLECTIONS ON PHYSICAL AND SOCIOLOGICAL TRANSFORMATION IN OBESITY SURGERY PATIENTS*

Abstract

Among the most important epidemiological diseases of our time is obesity. According to data from the World Health Organization (2022), one out of every eight people suffers from obesity. In addition to causing diabetes and various cardiovascular diseases in the human body due to excess fat accumulation, obesity also causes people to be excluded from society by facing negative social reactions associated with being overweight at some point in their lives. A person who is overweight or obese is stigmatized by society as overweight, fat, lazy, chubby, and inactive, and often face discrimination due to their physical appearance. Often, obese individuals isolate themselves from society as a result of the social pressures and criticism they are subjected to as a result of their obesity. To eliminate the social discrimination, they face and to lead a healthier life, some obese individuals attempt to lose weight through methods such as diet and sports, while others choose to undergo obesity surgery to lose weight. The purpose of this study was to conduct interviews with people who have undergone bariatric surgery to determine their perception of society's attitude towards their own bodies prior to their surgery, as well as the reasons why they decided to undergo the surgery and the changes in society's attitude toward them after the surgery.

Keywords: Obesity, stigmatization, body image, exclusion, behavioral treatments

OBEZİTE AMELİYATI HASTALARINDA BEDENSEL VE SOSYOLOJİK DÖNÜŞÜMÜN DÜŞÜNDÜRDÜKLERİ

Özet

Çağımızda karşımıza çıkan en önemli epidemolojik hastalıkların başında obezite gelmektedir. Dünya Sağlık Örgütü (2022) verilerine göre her 8 kişiden biri obezite sorunu ile karşı karşıya kalmaktadır. Obezite bir taraftan vücutta biriken aşırı yağ oranının insan bedeninde şeker, diyabet ve çeşitli kardiyovasküler hastalıklara yol açmasına sebep olurken diğer taraftan hayatlarının bir döneminde aşırı kilonun olumsuz toplumsal tepkileriyle karşılaşarak toplumdaki dışlanmalarına sebep olmaktadır. İnsanların aşırı kilolu/obez oluşu onların toplum tarafından kilolu, şişman, tembel, şişko ve hareketsiz olarak damgalanmalarına ve çoğu zaman dış görüşlerine yönelik ayrımcılıklarla karşılaşmalarına sebep olmaktadır. Obez bireyler, bedenlerine yönelik maruz kaldıkları bu toplumsal baskı ve eleştiriler yüzünden kendilerini sosyal hayattan soyutlamak istemekte ve çoğu zaman toplumdaki izole etmektedir. Obez bireylerden bir kısmı da uğradıkları toplumsal ayrımcılıkları ortadan kaldırmak hem de daha sağlıklı bir yaşama kavuşmak için diyet, spor vs gibi yöntemlerle zayıflamaya çalışmakta bir kısmı da kilo vermek için obezite ameliyatı olarak zayıflama yolunu tercih etmektedir. Bu çalışmada obezite ameliyatı geçirmiş olan kişilerle görüşmeler yapılarak, toplumun ameliyat öncesi kendi bedenlerine yönelik algısı, ameliyata kararı almaya onları motive eden nedenler ve ameliyat sonrası kilo verdikten sonra toplumun kendilerine yönelik değişen bakış açısı ele alınacaktır.

Keywords: Obezite, damgalanma, body image, dışlanma, behavioral treatments

* The part of this study about the stigmatization of patients of obesity had been presented in a speech at the 3rd Obesity Surgery and Dietitian Congress, organized by the Turkish Obesity Surgery Foundation, held at Ankara Crowne plaza Hotel on May 4-6, 2023 and never have been published.

Introduction

In today's society, obesity is one of the most significant health concerns. While obesity is defined as the excessive accumulation of fat in the human body to such a degree that it impairs health and appears to be a physiological health problem, it is a leading phenomenon that requires extensive discussion in various fields, including psychology, sociology, and culture. According to the World Obesity Atlas prevalence published by the World Obesity Federation in 2023, it is estimated that more than half the adult population will be obese by 2035. It is estimated that more than half of the Turkish population will be overweight or obese in 2035, in light of the increasing rates of childhood obesity and obesity in Turkey. Over the next few years, this number will gradually increase, and obesity will become a much more significant public health problem, especially among adults (WHO,2023).

Globally, approximately 1-2 billion people are overweight or obese, which represents approximately 7% of the world's population. Overweight is a problem that affects approximately 97 million people in the US, 60% of whom are males and 50% of whom are females. The number of overweight or obese people (adults and children) is expected to reach approximately 167 million by 2025 (Flegal 2012;WHO 2023). It is estimated that 51% of the world's population, i.e. more than 4 billion people, will be obese or overweight in the next 12 years, according to the World Obesity Federation's 2023 Report. Taking a look at obesity statistics in the United States, it is evident that obesity rates have nearly tripled since 1987 until 2021. During the Great Depression and the war years of the West, a big and strong body was considered desirable; however, this concept was replaced by the thin body ideal in the 1980s due to the harmful effects of obesity on health. Previously thought of as a physical deformity caused by an accumulation of excess body fat, obesity has now become an important health problem that poses serious threats to human health (Hermiston, 2010:360). Although obesity does not seem to be a disease in itself, it is known to cause a wide range of life-threatening conditions such as restricted mobility, cardiovascular diseases, high blood pressure, diabetes, damaged joints, and psychosocial disorders in individuals with obesity, which decrease the quality of life of those individuals (Ross, 2005:95).

Over the last two decades, obesity research has received a great deal of attention in fields such as medicine, nursing, and dietetics; however, few studies have been conducted in the field of sociology. A study titled "*The Pain of Obesity*" by Stunker et al., published in 1976, has been widely considered one of the most important studies in this area regarding the physical harm caused by obesity on people. The study examines the psychological, physical, and social effects of obesity, as well as the stigmatization and discrimination associated with obesity.

The book written by Stunker and Wadden in 1992 discusses cultural influences on weight prejudice, as well as current concerns such as the stigmatization of obese individuals among health professionals, weight stigmatization among children, and internalization of weight prejudice among obese individuals. In almost every aspect of their lives, obese individuals experience weight-based discrimination. A stigmatizing experience can result from people's prejudices about overweight people as lazy, unintelligent, unattractive, and dirty (Harris, 1991:882). The study conducted by Myers and Rosen in 1999 examined stigmatizing attitudes faced by obese individuals and attempted to develop an inventory of coping with stigmatization. During the period 2003-2004, Friedman also conducted research on the elimination of prejudice and discrimination against obese individuals who were considered socially stigmatized. It has been stated that obesity should not be seen as a personal failure in society, but instead, a social understanding environment that approaches obese individuals empathically and supports them should be created (Friedman 2003,2004).

According to Puhl et al. (2009), stigmatization and prejudice about overweight reduce self-confidence among overweight individuals, as well as make them depressed and prevent them from taking part in sports and maintaining a healthy lifestyle. Additionally, Brewis (2011, 2014) stated in his studies that due to the growing prevalence of obesity, prejudice against weight has also gradually increased in society. Therefore, obese individuals experience a sense of judgment and experience psychosocial stress as a result of this. Additionally, Sikorski et al. stated in their study that obese individuals are subjected to many pressures and prejudices regarding obese individuals and that obese people must deal with the exclusionary and judgmental attitudes of society while also dealing with the health problems associated with obesity. In Nick Crossley's article titled "*Fat is a Sociological Issue: Obesity Rates in Late Modern, 'Body-Conscious' Societies*" published in 2004, it is mentioned that a sociological perspective is absolutely necessary to understand obesity because only by understanding social pressure and stigmatization of obese individuals' bodies can we gain a deeper understanding of obesity. The article "*The Stigma of Obesity: A Review and Update*", written by Rebecca M. Puhl and Chelsea A. Heuer in 2009, is another important study in this field. Among the findings of the study, the

understanding that stigmatizes obesity with negative qualifications such as laziness and low self-esteem further affects the mental health of obese individuals, resulting in psychological problems such as low self-esteem, depression, anxiety, and a desire to isolate oneself from society among obese individuals.

In reviewing the studies conducted in our country on obesity, it is apparent that while interest in this field appears to be increasing, most of the research is concentrated in the graduate thesis context. A particular finding is that there are very few studies that address social pressure over obesity and that the majority of studies are focused on health, gender, media, and advertising. A study by Emre Işık (1998) titled "*Body and Society Theory: From the Sociology of the Subject to the Sociology of the Body*" is considered one of the most influential works on the theoretical and conceptual framework for the sociological construction of the body. Meral Timurtürkan wrote about the evolution from a philosophical to a sociological approach to the body in 2008 in "*From Philosophical Body to Sociological Body*", which is considered to be among the most comprehensive studies in this field. Among the valuable studies on the sociology of the body are Gönül Demez's study on the sociology of the body for the "*Journal of Toplum Bilim*" published in 2009, the book "Body Sociology" under the editorship of Kadir Canatan published in 2011, and the work titled "*Sociology of the Body: Embodiment Experiences of Everyday Life, Medicalization, Digital Surveillance*" written by Gönül Demez, Meral Timurturkan, and Cihan Ertan in 2020 are among the valuable studies on the sociology of the body. The postgraduate studies in the field included especially Murat and Karadağ's (2022) work titled "*Stigmatization of Obese Individuals and Its Consequences*", an analysis of the negative attitudes and discriminatory behaviors facing obese individuals, a study by Hamurcu (2014) evaluating the self-esteem and body perceptions of obese individuals was also conducted, while Gülaçan's (2023) study examined the association between self-stigmatization and emotional eating as a factor in overweight and obese individuals' weights.

Social Construction of the Body

Currently, the body is considered by every society to have a "physical" or a "formal" dimension; however, in addition to a physical dimension, the body also contains a socially constructed reality. In the social construction of the body, dualistic definitions such as complete (healthy), healthy, incomplete (with disabilities), beautiful, ugly, and old are also products of a cultural construction process (Timurturkan, 2008). Indeed, the history of body discussions dates back to the 17th and 18th centuries, but the place of the body in sociology dates back to the late 1970s (Turner, 1992).

The study of the body began to gain prominence in the discipline of sociology at the end of the 1970s, but the studies of certain scholars serve as the foundation of sociological studies of the body. Simone de Beauvoir's (1948) "*The Second Sex*", which describes how the body is experienced differently for men and women, Foucault's (1976) "*History of Sexuality*", which deals with body relations through social structure, power and the sanctions imposed by power and describes biopower relations; Bourdieu's "*Distinction: A Social Critique of the Judgment of Liking*" (1979), which deals with the body in direct relation to social class, cultural capital and aesthetic values, are considered among the most important sociological studies on the body of the twentieth century.

According to Foucault, a post-structuralist, during the modernization period, the well-being and completeness of the body, its welfare, beauty, and healthiness were valued and adopted (Shiling etc, 1996, Foucault 2012). While the human body used to be viewed as an ordinary working tool in feudal societies, under capitalism it has evolved into a 'body expected to be healthy,' to share the workload, to be punctual, to consistently produce, and to be free of inertia. According to Foucault, in the capitalist production process, bodies have begun to become more remarkable, visible, and prominent (Pylypa 1998, Cooper 2016).

Because people view each other's bodies first, they initially evaluate each other on the basis of their physical characteristics (Turner 1981:1982). In human relations, even today, the size, shape, and length of the body are evaluated based on the size of the hands or feet, whether the necks are short or long, whether the feet are small or large, and whether the hair is long or short. As an example, tall people are regarded as valiant, short people are regarded as threatening, fat people are perceived as lazy, women with small feet are acceptable in China, women with long necks are more safeguarded in Africa, and interventions that affect the human body are manifestations of social construction processes towards the body (Kara&Özgür, 2012, 1-19). In society, the body is constantly divided into the 'ideal' and the 'non-ideal', the body that is not accepted by society is stigmatized, and socially positive/negative meanings are attempted to be assigned to the body.

According to Turner (2000), our thoughts and feelings about our bodies are influenced by how others perceive and discuss them. In the social construction process of the body, the film industry also plays a role in shaping our perspective on the body, particularly the Hollywood film industry which portrays young and beautiful bodies as ideal bodies with subliminal messages and causes us to evaluate other bodies based on these perfect, young and

beautiful bodies (Tsichlia, 2010). It should be noted that while obesity and overweight are denigrated in popular culture, these individuals are also viewed as having no personal control over their eating behavior and are excluded (Rasmussen, 2015).

Based on Anthony Giddens' constructivist theory, the body is influenced by the social factors surrounding it. A body's meaning is not solely determined by its physical attributes, but also by the social norms and value judgments society places on it (Giddens, 2000:126). The body is constantly subject to both positive and negative social judgment and criticism in this context. Even though some bodies are considered fascinating by society, others are considered repulsive and socially excluded. Some people indeed feel compelled to isolate themselves from society by excluding themselves as a result of the pressure and criticism that society places on their bodies. Various factors contribute to this process of exclusion, including life story, social or cultural status, gender, and age (Striegel-Moore, 2002).

Body- stigma relationship through the marginalization of the body

Different disciplines address the question of what a subject is and how it is defined in a variety of ways. According to Bauman, the sociological categories of 'us' and 'them' are used to distinguish between two different groups of people, but also to express who is considered to be 'us' and who is considered to be the 'other'. As a society, different conceptualizations such as old/young, black/white, and healthy/diseased, are viewed as privileges that attempt to elevate one body over another (Baumann 2009:52). It becomes evident when the relationship between body and stigma is discussed that while some bodies are celebrated and accepted by society in accordance with norms, some bodies are humiliated and excluded.

Bourdieu (1979) contends that the body is more than just an individual object, it is also a product of social structures and norms, and as such, it occupies a central position in social criticism. Coleman (1997:216) defines stigma as an image of life that consists of personal, and social constructs, and relationships, and states that society stigmatizes those with undesirable characteristics.

As a result of the Goffmanian understanding (1963), stigma was first used to refer to those who exhibit undesirable behavior in society. People with physical differences were later included among the stigmatized individuals. There are three types of stigmatization according to Goffman: first, those who are disgusted by their physical differences, second, those who exhibit radical attitudes such as alcoholism, mental illness, obsessiveness, and suicidality, and third, those stigmatized for their differences of race or nationality. The stigmatization of individuals is passed down from generation to generation in society, causing unexpected and undesirable differences in their life expectations. In his study, Goffman describes how stigmas are constructed primarily through bodily forms, which differences are valued by society, and which are not, and how this situation affects the social relationships of the stigmatized. In Goffman's view, stigma is a form of 'social identity' comprising various categories and characteristics attributed to the individual. In addition, he notes that stigmatization can transform a complete and conventional individual into someone perceived as undesirable, bad, dangerous, weak, and worthless by others (Goffman 1963:4).

In accordance with Goffmanian perspectives, Burcu proposes that stigmatized individuals may respond in five different ways. The first is that, by feeling incomplete, they attempt to correct what is viewed as the concrete cause of the individual's failure and stigmatization, such as surgery, treatment, rehabilitation, and therapy, using technical tools to improve the situation. Secondly, they participate in activities such as swimming, mountaineering, etc. to correct deficiencies or inadequacies in certain areas of activity. The third reaction is their isolation from others and the outside world by avoiding communication with those they deem humiliating or shameful. Fourthly, they believe that stigmatization is an excuse, and as a result, they avoid all social duties and responsibilities and isolate themselves from other people. As a final concern, they may believe that stigmatization provides them with new insights into life and that this represents a secret state of sanctification (Burcu, 2020:53-58).

Often what Baumann and Goffman consider to be a stain, or stigma can be a characteristic, a defect, or a disease that does not feel like a defect to us. It is possible for what we consider to be normal in ourselves to become a source of social shame for others. Orbach explains that while being slim is considered a natural characteristic in society, being overweight is considered a health disorder. Diamond also states that being overweight and slim are among the contrasts in nature and that being slim is regarded as a natural state, whereas being fat is considered a pathological and problematic condition (Goffman 1963, Diamond 1985, Orbach 1988, Bauman 1998).

It has been argued by Orbach that the obese female body is stigmatized the most in society, as a result, every woman desires to be thin. In addition to stating that various stereotypes regarding the female body are prevalent, she asserts that the rounded bodies of African-Caribbean women are idealized by society based on a racist ontological understanding because they appear stronger and more attractive than the bodies of white women, while overweight women are excluded from society because they do not look good (Orbach ,1998; Caradas, 2001). The superiority of some bodies over others is a result of hegemonic power relations derived from a traditional understanding of the past (Ronti,2017).

Therefore, individuals struggling with obesity are more likely to be discriminated against based on their body, such as exclusion, isolation, and loneliness in all aspects of society, which negatively impacts their social relationships and further exacerbates their disadvantaged position. As long as the negative perspective towards obese individuals continues, obese individuals begin to internalize this situation after a while due to the discrimination they suffer, blaming themselves for this situation as well as holding themselves liable for stigmatization (Pedersen, 2010). Therefore, the stigmatization of obese individuals worsens their living conditions and causes them to experience discrimination even more intensely. In addition, the stigmatization of obesity has adverse effects on individuals and society, resulting in individuals withholding themselves from social life, especially from social relationships. As a result, there is a need to heighten social awareness to eliminate the stigma associated with obesity and to develop programs that support social change in the way obese individuals are perceived.

Table 2. Demographic Characteristic of the Obese Interviews

Obese	Gender	Age	Education	Marital Status	BMI	Chronic Diseases	Current BMI	Total Weight Lost
P1	Female	41	High School	Married	41.6	Insulin resistance, heart, cholesterol	22.5	49.7
P2	Female	23	High School	Single	37.8	Mediterranean fever, thyroid, HSP, insulin resistance	28.1	29
P3	Female	58	High School	Married	40.4	DM+HT	25.3	35
P4	Female	47	High School	Married	48.9	None	33.4	40
P5	Female	33	High School	Married	41.78	Asthma	28.2	36
P6	Male	32	University	Married	38.7	Attention deficit, eating disorder	23.8	40
P7	Male	50	University	Married	41.5	DM+HT	30	35
P8	Male	45	High School	Married	43.52	None	27.2	53
P9	Male	27	University	Single	36.1	None	23.7	37
P10	Male	25	High School	Married	39.7	None	25.8	46

Methodology of the Study: The sample group of the study consisted of 10 patients registered in a private surgical clinic in the Mediterranean Region and who had undergone obesity surgery for at least two years. In this study, 10 patients, including five males and five females, who had previously undergone obesity surgery, were interviewed using an in-depth interview technique in which semi-structured open-ended questions were asked,

and the interviews were conducted at the interviewer's premises. The study was conducted using a qualitative research method. An important step in the qualitative research process is identifying the questions the research seeks to answer, as well as the nature of the answer (Kümbetoğlu, 2012, p. 30-35). The qualitative method also involves conducting research in the natural environment of individuals to examine their experiences and practices. The method used in this study was categorical content analysis. In this method, which allows texts to be systematically examined, codes and categories are first established in the text; then, these categories are analyzed, and the data are interpreted (Yıldırım & Şimşek, 2013: Gül, Yılmaz).

This study, which was conducted between February and April 2023, was based on the voluntary participation of the interviewees, the personal data of the interviewees were kept confidential, and the names of the interviewees were coded as P1, P2, P3..., while deciphering. The interviews were conducted face-to-face in the households of the interviewed patients. The data and interview notes used in the study were taken with the permission of the participants, and the data were then analyzed thematically. The data obtained from the study were first coded, and then the codes obtained were categorized and tried to be structured by creating certain themes. The age of the interviewees varied between 23-58 years, and their education level consisted of high school and university level. 5 male and 5 female interviewees had some disorders such as thyroid, cardiovascular diseases, hsp, insulin resistance, asthma, eating behavior disorder before the surgery. Within two years after the surgery, the interviewees lost a minimum of 29 and a maximum of 49.7 kg, decreased from a preoperative BMI of 41.6 to a postoperative BMI of 22.5, and from a maximum BMI of 37.8 to a BMI of 28.1.

As part of the study, all interviewees were required to sign a consent form. The study was conducted by keeping notes without recording audio, and then these notes were categorized and organized by the researcher. Interviews were divided into three categories: the view of the obese body before obesity surgery, the decision to undergo obesity surgery, and the experience after obesity surgery. The study was approved by Burdur Mehmet Akif Ersoy University's ethics committee with the decision and date numbered GO 2023/406.

The view towards the obese body before obesity surgery

As a consequence of the social construction of the body, while some bodies are considered acceptable by society, others are excluded and may even be discredited as those that society does not wish to have. It was Goffman (1963) who coined the term stigma to refer to the negative perceptions and judgments that exist in society regarding the body, thus asserting that those whose appearance does not conform to normative cultural beauty values are stigmatized and excluded from society. In their study, Forbes and Donovan also concluded that society stigmatizes overweight individuals as gluttonous, sick, and lazy. According to Cahman (1968), obese individuals are also subjected to negative stereotypes associated with laziness and lack of discipline. Numerous studies have outlined the fact that obese individuals are subjected to overwhelming negative attitudes by society because they are perceived as overweight, lazy, unmotivated, unsuccessful, unintelligent, lacking self-discipline, weak willpower, and noncompliance with weight loss treatments (Puhl and Brownell, 2001; Puhl and Heuer, 2009). In other studies, obese individuals are stereotyped at the individual level as lazy, unmotivated, lacking self-esteem, deviant, and useless (Oliver, 2006; Hermiston, 2010). In addition, in this study, interviewees indicated they had been nicknamed 'chubby, fat, porky, fatty, blimp, chunky' as a result of their overweight status and discrimination against their bodies during almost every aspect of their lives, both when they were in school and before they underwent obesity surgery, they were discriminated against by society because of their bodies.

The fourth female interviewee, age 47, expressed the discrimination she experienced as a result of her obesity prior to the surgery as follows: *"I have always been overweight since the day I was born, throughout my school life, especially during primary school, I was often nicknamed fat, chubby, tubby, chunky, fatty. Most of the time I would not show my feelings at school, and I would come home crying. My mother would tell me to hold my throat every time I ate, the more she said so, the more I ate; I became unable to walk because of my weight, before the surgery I did not even want to go out on the street, I felt as if everyone was looking at my weight..."*

The 7th male interviewee, aged 50 years old, also expressed his preoperative process as follows: *"During my preparation for the university examination I gained so much weight that they were unable to stop me after a certain point... They began calling me nicknames such as chubby, tubby, teddy, and teddy bear, chiko. Even though I laughed it off, I never forgot about it... In the past, I always withdrew myself from girls until I married my wife, and she accepted me. I also had a lot of trouble with clothes when I was overweight..."*

The 10th interviewee, a 25-year-old male interviewee, described the exclusion process he experienced due to his weight as follows: *"The society is cruel about overweight people, they see them as almost bodiless. You start to see the realities in the compulsory physical education class, you must stop while everyone else is running, you have to be their buddy while everyone else has a girlfriend. Even if the pressure outside is over, the pressure at home doesn't end, my mom keeps telling me that I'm too young, I'm too young. Once I wanted to socialize and sign up for the school theater, they organized a dinner, they said we can bring you two chairs if you want, I felt like thirty cents. I didn't realize it that much until then, my self-confidence, which was already non-existent, sank to the ground and I decided to have surgery..."*

The 33-year-old 5th female interviewee expressed some of the expressions of the people around her about her weight as follows: *"When I was 120 kg, I heard people saying over and over again that you are a beautiful girl if you lose that weight, in fact, your face is very beautiful, for God's sake, what is facial beauty, it's like saying to me that you are overweight, you are ugly, we don't like you, console yourself with your facial beauty, make do with it. It feels like everyone is obsessed with your weight all the time, even your friends and relatives, whom you will never be sincere with, give you advice about weight..."*

Similarly, the second interviewee, a 23-year-old single woman, said, *"I have been subjected to the same words all my school life, I have been nicknamed fat, chubby cheek. And now I am a young girl, but people try to squeeze my cheeks and treat me like a child because I am overweight, as if I have never grown up. You are a young girl, and you want to be valued like a woman, not like a child, but people are always obsessed with your weight. Since I was a child, I have been fighting against people's perception of me as a fat person and fighting to say that I exist as an individual. This is actually a pressure like you are a good person, but you have to prove it to people all the time... No matter how much I struggled, the perception of my body returned to normal only after the surgery."*

In Turner's view, bodies are shaped by social structure, and society's perception of obesity is also affected by social structure. As Anthony Giddens states in the constructivist approach, the perspective on the body is similarly constructed by social actors in society. People in the study expressed discomfort at being called nicknames such as fat, chubby, fatty, chubby, teddy bear, and chiko, and also that people did not accept them as individuals and pinched their cheeks like children, regardless of their age. According to Giddens, individuals begin to see themselves through the eyes of society with time. Following their exclusion from society, obese individuals stated that, after a while, they devalued themselves in the eyes of society and even attempted to isolate themselves from it even further (Giddens, 2000:126).

A strong correlation exists between obesity and stigmatization. Generally, obesity is stigmatized because it is not associated with a positive social image. The thin and fit body form is idealized in the media, whereas obese individuals are perceived as deviating from this ideal and are excluded from society. A person who is obese may experience difficulties in finding a job, in accessing education and health care, in the public sphere, and in actively participating in society as a result of this stigmatization. It is possible that obesity can negatively impact the mental health of obese individuals, resulting in problems such as low self-esteem, anxiety, and depression (Sobal, 2004).

Decision on Obesity Surgery

During the interviews, obese individuals expressed how they decided to have an operation and what difficulties they encountered during the process as follows.

The 41-year-old female interviewee 1 expressed this process with the following sentences: *"For as long as I can remember, the gaze of fatness has been on me. It is such a difficult process, you don't want to go out in public, you want to lose weight, but you don't want the people in the gym to look at you, you want to lose some weight so that you can go. For example, if you drop something on the ground, you can never bend down and pick it up because of your weight, you are some kind of disabled, but it has not been named yet. And of course, I also have heart disease, diabetes and cholesterol due to weight, heart is family-related and the others are due to overweight. What pushed me to decide on surgery was my son. My son was a very active child, I could never play*

with him in the park, my child asked me one day, "Mom, why aren't you like normal mothers?" That day I almost collapsed and immediately started searching for obesity surgeries."

The 23-year-old 2nd female interviewee expressed her decision to undergo surgery as follows: "I am a young girl, I am only 23 years old and my body is not pleasing to anyone including me, your body is constantly talked about. You look in the mirror and you are disgusted by your own body; you start to look at your body like those who look at your body. Falling in love was effective in my decision-making process, I told my best friend about the boy I liked, she said, don't be ridiculous, would that boy look at you in this state, suddenly this truth hit me in the face, and although I was young, I had so many diseases, my mother was afraid of losing me and wanted me to lose weight, how long can I live like this, I immediately searched for surgeries, the next week I was on the operating table..."

The 33-year-old female interviewee 5 explained her decision to undergo surgery as follows: "I feel unloved by anyone for 33 years, they love me as if I am a fluffy creature, even though I am married, they still cannot fit me next to my husband, if he wants to go somewhere, I am out of breath, I already have asthma and I could not keep up with him due to my weight, my husband said this cannot be like this, he forced me to go, and then I found myself on the operating table."

The 27-year-old male interviewee 9 explained his decision for surgery as follows: "I've been hiding my body for as long as I can remember. Every guest who comes to the house talks about weight. You get on the bus, you cannot be comfortable there, people sucks when they see you, you have no place in this society, it is as if you are seen as a child whose cheek will be squeezed by everyone, it has now become such that everyone has started to talk about weight, you are still young, don't do it, even in the supermarket I go to, my weight has been talked about, one day I said enough is enough, I can't live like this, I will lose weight and get rid of these pressures and I decided to have surgery..."

Furthermore, interviewee 8, a 45-year-old male interviewee, expressed his decision to undergo surgery as follows: "I am very insecure about participating in social life. When I went to a big meeting, wedding, etc., I felt as if everyone's stigmatizing gaze was on me, so I preferred to sit in the back rows. In this case, you are trying to hide yourself by being a 3rd class citizen who is not noticed by society with your overweight state, no one will be able to say that you are charismatic and handsome for the rest of your life... You don't even have a place in society... One day, my wife said enough, look, you are suffering so much, have this surgery and your soul and body will be saved, and that's how I decided to have surgery..."

The 47-year-old 4th female interviewee also expressed her decision to undergo surgery as follows: "The first thing that came to my mind the day my husband criticized my weight was that I had not done anything for myself until today...For years, I have pleased my husband, I have pleased the children, I have pleased everyone except myself. I always thought that I would like to wear beautiful clothes suitable for myself, suddenly I thought that I was approaching the age of 50, why shouldn't I wear what I want like everyone else, why shouldn't I have the healthy body I want, and I decided to have surgery, the decision to have surgery on the day my husband expressed that he did not like my body was the turning point of my life..."

As a social being, the human being appears on the stage of society through his or her physical form. As a social actor, the human body is part of its social environment as well as all of its internal and external factors. Our body is not simply a collection of flesh and bones. It is a complex network of relationships that encompasses our internal as well as our external relationships. Social relations are also shaped by our bodies (Tsichlia,2010). Whenever bodies interact with society, they attempt to define 'what is normal', as Foucault puts it, and compare themselves to other bodies. Just as a healthy and strong body may belittle a weaker one, our clothes and our posture constitute a field of power we establish for the body and body image in both our social interactions and in our class relations (Foucault 1978, Orbach 1998).

In popular culture, the body has come to represent not only the means of production but also the "ideal form" for which care is taken and for which health is desired. As a result, full, healthy, perfect bodies that are constantly emphasized are glorified by society, while overweight and obese individuals are excluded as undesirable and unacceptable (MacDonald 2003, Murray 2008). All individuals interviewed stated that they were subjected to social pressure prior to having obesity surgery. According to all interviews, obese individuals' bodies are stigmatized as sexless, disliked, and undesirable. Coleman argues that stigma also refers to undesirable differences. As stated in the study, most of the interviewees stated that they underwent surgery primarily as a result of society's devaluation of their bodies. According to some interviewees, obesity impairs their health as well as the occurrence of many chronic diseases that are associated with their overweight bodies, thereby

excluding them from society as individuals who do not lead a healthy life and do not take the necessary responsibilities to maintain their health.

In one sense, society stigmatizes overweight caused by obesity, but it also stigmatizes obesity-related health problems. It is based on society's understanding that each individual is responsible for the health of his or her own body. Health, according to Leichter, is defined as "the affirmation of a life lived virtuously" (1997, p. 359). It is commonly believed that fat people lack the willpower to resist "bad" foods and behaviors, to disobey medical advice, and as a result, to disrespect the social value of being "healthy". Furthermore, Foucault states that overweight and obese individuals are ostracized by society as bodies that are incapable of taking care of themselves and their health and that they should be expected to fight obesity. According to Turner, obese individuals are perceived by society as people responsible for fulfilling their responsibilities regarding their own bodies and striving to lose weight as part of the medicalization of obesity.

After obesity surgery

Based on the interviews, obese individuals described the following changes in their perspective towards their bodies both from the perspective of society and from their own perspective after two years following obesity surgery:

The fourth female interviewee described her experience following surgery as follows: *"I am 47 years old. If I knew I would be this happy, I would have had this surgery already. I have officially come back to life, while I was passing by the stores, the first thing I did was to change my wardrobe, I regained both my health and my womanhood, I am a woman who knows what she wants now, I don't want to let anyone make me feel bad again, it is as if I have come back to this life, I feel that I am more respectable even in the eyes of my children."*

The 2nd female interviewee, 23 years old, expresses the process she went through as follows: *"Everyone was criticizing me for being sexless, for being like a boy, but I could not find anything to wear other than baggy t-shirts and jeans, and now I am a young girl who wears skirts and holds her boyfriend's hand and walks around happily, holding on to life tightly, even my father says oh my god, it turns out I have a daughter, and even though this situation made me sad at first, now I am proud, I am proud of myself and my body. Most importantly, I have almost overcome all my illnesses..."*

Among the interviewees, the 7th male interviewee, who is 50 years old, expressed the situation after the surgery as follows: *"After the surgery, I was literally noticed by the people around me, we renewed the wardrobe after 50, I was even late... Everyone says ooo, what a handsome man you have become, it was a nice feeling to be noticed..."*

The 41-year-old female interviewee 1 expressed this process with the following sentences: *"I think my husband has fallen in love again, he reacts the way he used to react; I used to hesitate a hundred times to mix with society, now I can't wait to go out on the street, catching up with my child's energy has been the most beautiful feeling I have ever experienced, and I have never felt like a woman until now, even as a mother, I feel like a woman for the first time, all my illnesses have disappeared, a new me has been born in the last two years..."*

Interviewee 8, a 45-year-old male interviewee, expressed his new life after the surgery with the following sentences: *"After the surgery, I was literally reborn, everyone says, 'Were you so handsome?' I used to feel uncomfortable feeling like they were looking at my body for many years, but now they look at me with admiration, and this time I am proud of my body."*

Based on the participants' responses to the interviews, their view of their bodies has changed positively both from their own perspective and from the perspective of society after obesity surgery. The way in which society views the body also influences the way in which people view themselves. As a result of internalizing the negative judgments of society towards their own bodies in the preoperative process, obese individuals who did not like their own bodies said that they liked their own bodies following the surgical process resulting from a shift in society's positive attitude toward their bodies (MacDonald 2003, Faria 2017). The women stated that they felt more feminine following the obesity surgery, while the men stated that they felt more masculine after the surgery. The results of obesity surgery have not only altered the physical appearance of obese individuals, but have also had positive effects on their socially accepted identities, self-esteem, and social relationships (Thorsby, 2012; Jin Park, 2015).

Vries (2007) states that the existence of medical solutions such as surgery for obesity brings to mind the question of whether obesity is a disease or not. Obesity is not only a health problem in itself, but also leads to many chronic diseases, especially heart diseases and diabetes. Being overweight, which was previously considered a moral problem, has now been medicalized with the inclusion of obesity surgeries in insurance coverage, and with a Turnerist perspective, obese individuals have begun to be seen as individuals who are expected to bring their bodies into a healthy form in society. This has led to the evolution of the moral perspective, which almost ignores the bodies of obese individuals by belittling their bodies, into a medical perspective that sees them as sick individuals who need to lose weight. Being overweight has many risk factors for health beyond the dimension of physical difference. Similarly, obese individuals are known to have many comorbid diseases such as diabetes, sleep apnea, cardiovascular diseases before obesity. After the surgery, obesity patients expressed their satisfaction with this process because they got rid of both social pressures and these comorbidities accompanying their overweight bodies.

According to Crossley, obesity is a sociological issue in modern societies, one that should be viewed not only as an individual health concern but also as a phenomenon with deep social and cultural implications. According to him, in order for society to change its perception of obese individuals, media and cultural norms that constantly emphasize thinness must be eliminated, and studies should be conducted in all areas that will influence society's perception of obese individuals' bodies.

According to Thorsby, in his 2007 study on the experiences of obese patients before and after surgery, the social perception of obese individuals and the perspective towards obese individuals are completely gone after bariatric surgery. Moreover, Jin Park (2015) asserts that after surgery, obese individuals gain new opportunities and rebuild their social roles. Bariatric surgery can have a positive impact not only on a person's physical appearance, but also on their psychological and sociocultural dynamics (Jin Park, 2015).

Conclusion

Increasing obesity rates have led to the emergence of harmful stereotypes and prejudices targeting obese people. Society wrongly associates obesity with laziness, irresponsibility and lack of self-control and judges people with obesity as if genetic, socioeconomic and environmental factors have no influence on the development of obesity and it is only caused by uncontrolled eating [9, Puhl]. The social order that determines the boundaries of normality depicts the ideal body forms and marginalizes the bodies that violate the boundaries of these bodies.

As a result, obese individuals are viewed as having bodies that are not in accordance with the ideal body form and are ostracized by society. Those who are obese and are excluded from social life as a result of the negative social consequences of being overweight often isolate themselves from social situations and do not participate in social activities. To achieve the ideal body form acceptable to society, some obese individuals who are discriminated against as a result of their weight wish to lose weight using methods such as sports and dieting, and others undergo obesity surgery to remove the pressure placed on their bodies by society. During this study, interviews are conducted with people who have undergone bariatric surgery at least two years after the surgery to assess how society views their own bodies before and after the surgery. The focus of the study was on how society viewed obese individuals' bodies before surgery, the reasons they made this decision before surgery, and how society's view of them changed after they lost weight after surgery. As observed in this study, individuals who underwent obesity surgery expressed feeling reborn as a result of weight loss, and that they were not subjected to any social pressures regarding their physical appearance after the surgery. On the contrary, they are seen as individuals whose bodies are admired and complimented by society.

It was after surgery that the perspective that caused obese individuals who are unwanted and excluded by society to feel useless and worthless transformed into a more positive one. It is however necessary to construct a society that remains free of stigmatization, does not exclude obese individuals, and approaches them empathetically and supportively. For this purpose, it is necessary to make arrangements to prevent obesity stigmatization in all areas of education, particularly in the curricula of health professionals, and to develop multidimensional approaches to ensure that no one's body is viewed with judgmental attitudes while creating educational content.

References

- Bauman, Z. (1998). *Sosyolojik düşünmek*. (A. Yılmaz, Çev.) İstanbul: Ayrıntı Yayınları.
- Baumann, Z. (2009). *Sosyolojik Düşünmek*, Abdullah Yılmaz (çev.), Ayrıntı Yayınları, İstanbul.
- Beauvoir, de S. (2019). *İkinci Cinsiyet* (1.bs). (G. Savran, Çev.). İstanbul: Koç Üniversitesi Yay.
- Burcu, E. (2020). *Engellilik sosyolojisi (Genişletilmiş 2. bs.)*. Ankara: Anı Yayıncılık.
- Bourdieu, P. (2015). *Ayırım: Beğeni Yargısının Toplumsal Eleştirisi*. çev. Derya Fırat Şannan-Ayşe Günce Berkurt. Ankara: Heretik Yayıncılık.
- Brewis, A. A. (2014). Stigma and the perpetuation of obesity. *Social science & medicine*, 118, 152-158.
- Cahnman, W. J. (1968). The stigma of obesity. *The sociological quarterly*, 9(3), 283-299.
- Caradas, A. A., Lambert, E. V., & Charlton, K. E. (2001). An ethnic comparison of eating attitudes and associated body image concerns in adolescent South African schoolgirls. *Journal of Human Nutrition and Dietetics*, 14(2), 111-120.
- Coleman, S. R. (1997). Facial Recontouring with Lipostructure. *Clinics in Plastic Surgery*, 24(2), 347-367. doi:10.1016/s0094-1298(20)31069-5.
- Cooper, A. (2017). *The Biopolitics of Lifestyle: Foucault, Ethics and Healthy Choices*: Christopher Mayes, 2016, Routledge (Oxford and New York, 978-1-138-93386-6, 156 pp.).
- Crossley, N. (2004). Fat is a sociological issue: Obesity rates in late modern, 'body-conscious' societies. *Social Theory & Health*, 2, 222-253.
- De Vries, J. (2007). The obesity epidemic: medical and ethical considerations. *Science and engineering ethics*, 13(1), 55-67.
- Demez, G., (2009). *Beden Sosyolojisi Giriş Yazısı*. *Toplumbilim*, no.24, 3-6.
- Demez, G., Timurturkan, M., & Ertan, C. (Eds.). (2020). *Bedenin sosyolojisi: gündelik hayatın cisimleşme deneyimleri, tıbbileştirme dijital gözetim. Bağlam*.
- Diamond, N. (1985). Thin is the feminist issue. *Feminist Review*, 19(1), 45-64.
- Faria, G. R. (2017). A brief history of bariatric surgery. *Porto biomedical journal*, 2(3), 90-92.
- Foucault, M. (2007). *Cinselliğin tarihi*, çev. Hülya Uğur Tanrıöver. İstanbul: Ayrıntı Yayınları, 4.
- Foucault, M. (2012). *İktidarın Gözü*, (Işık Ergüden, Çev.), İstanbul: Ayrıntı Yayınları.
- Foucault, M., & Carrette, J. R. (2013). *Sexuality and power* (1978). In *Religion and Culture* (pp. 115-130). Routledge.
- Giddens, A. (2000). *Sosyoloji*, Ankara: Ayraç Yayınevi, 1. Baskı, Nisan.
- Friedman, J. M. (2003). A war on obesity, not the obese. *Science*, 299(5608), 856-858.
- Friedman, J. M. (2004). Modern science versus the stigma of obesity. *Nature medicine*, 10(6), 563-569.
- Goffman, E., (1963) *Stigma*, Penguin, London. (Goffman, E., (2014) *Damga*, Yay. Haz. Levent Ünsaldı, Heretik Yayınları, Ankara).
- Gül H., Akçıl A., Gönen M. Baydar M., (2024) *Bilimsel Araştırma Süreç, Yöntem ve Etik*, Pelikan yay., Ankara.
- Gülaçan, D. (2023). *Aşırı kilolu ve obez bireylerde kilo açısından kendini damgalama ve duygusal yeme arasındaki ilişkinin incelenmesinde yaşantısal kaçınmanın aracı rolü* (Master's thesis, İstanbul Gelişim Üniversitesi Lisansüstü Eğitim Enstitüsü).
- Hamurcu, P. (2014). *Obez bireylerde benlik saygısı ve beden algısının değerlendirilmesi* (Master's thesis, Sağlık Bilimleri Enstitüsü).
- Harris, M. B., Walters, L. C., & Waschull, S. (1991). Altering Attitudes and Knowledge about Obesity. *The Journal of Social Psychology*, 131(6), 881-884. <https://doi.org/10.1080/00224545.1991.9924675>.
- Hermiston, A. J. (2010). "Who are you calling 'fat'?: the social construction of the obesity epidemic. *Advances in Medical Sociology*, 359-369. doi:10.1108/s1057-6290(2010)0000011023.
- Işık, E. (1998). *Beden ve toplum kuramı: öznenin sosyolojisinden bedenin sosyolojisine*. Bağlam Yayınları.

- Kara, M., & Özgür, F. F. (2023). Perception of beauty in different cultures. In *Beauty, Aging, and AntiAging* (pp. 11-19). Academic Press.
- Kümbetoğlu, Belkıs. *Sosyolojide ve Antropolojide Niteliksel Yöntem ve Araştırma Yöntemleri*. Dördüncü Basım. (İstanbul: Bağlam Yayıncılık, 2015).
- Leichter, Howard M. (1997) Lifestyle correctness and the new secular morality, in: A.M. Brandt and P. Rozin (Eds) *Morality and health*, London: Routledge, pp. 359–78.
- MacDonald Jr, K. G. (2003). Overview of the epidemiology of obesity and the early history of procedures to remedy morbid obesity. *Archives of Surgery*, 138(4), 357-360.
- Murray, S. (2008). Pathologizing “fatness”: Medical authority and popular culture. *Sociology of sport journal*, 25(1), 7-21.
- Myers, A., Rosen, J. Obesity stigmatization and coping: Relation to mental health symptoms, body image, and self-esteem. *Int J Obes* 23, 221–230 (1999). <https://doi.org/10.1038/sj.ijo.0800765>
- Muratdağı, G., & Karadeniz, F. (2022). Obez bireylerin damgalanması ve sonuçları. *Sakarya Tıp Dergisi*, 12(1), 188-192.
- Oliver, J. E. (2006). *Fat politics: The real story behind America's obesity epidemic* (Vol. 15). New York: Oxford University Press.
- Orbach, S. (1998). *Fat is a feminist issue: The anti-diet guide for women+ Fat is a feminist issue II*. Random House.
- Park, J. S., Moon, J. H., Huh, J. S., Kong, M. H., & Kim, H. J. (2015). Comparison of correlation between prostate volume and obesity indices. *The Korean Journal of Obesity*, 24(2), 95-100.
- Pedersen, S. (2010). *Female form in the media: body image and obesity*. M&K Update Ltd..
- Puhl, R. M., & Heuer, C. A. (2009). The stigma of obesity: a review and update. *Obesity*, 17(5), 941.
- Puhl, R., & Brownell, K. D. (2013). Bias, discrimination and obesity. *Health and Human Rights in a Changing World*, 581-606.
- Pylypa, J. (1998). Power and bodily practice: Applying the work of Foucault to an anthropology of the body.
- Rasmussen, N. (2015). Stigma and the addiction paradigm for obesity: lessons from 1950s America. *Addiction*, 110(2), 217-225.
- Ronti, C. (2017). Fat Activists' Strategies on Stage: Redefining Fat Identity. A Comparison of Scottee, Brenda Oelbaum, and Sins Invalid. *DiGeSt. Journal of Diversity and Gender Studies*, 4(2), 47-60.
- Ross, B. (2005). Fat or fiction: Weighing the ‘obesity epidemic’. In: M. Gard & J. Wright (Eds), *The obesity epidemic: Science, morality and ideology* (Ch.5). London: Routledge.
- Shilling, C., & Mellor, P. A. (1996). Embodiment, structuration theory and modernity: mind/body dualism and the repression of sensuality. *Body & Society*, 2(4), 1-15.
- Sobal J. Obesity and nutritional sociology: A model for coping with the stigma of obesity. *Clin Sociol Rev* 1991; 9: 125-141.
- Sobal, J. (2004). Sociological analysis of the stigmatisation of obesity. *A sociology of food and nutrition: The social appetite*, 259-274.
- Striegel-Moore, R. H., Franko, D. L., Cash, T. F., & Pruzinsky, T. (2002). Body image: A handbook of theory, research, and clinical practice. *Body Image: A Handbook of Theory, Research, and Clinical Practice*, 183-191.
- Stunkard, A.J. (1976). *The pain of obesity*. Palo Alto, CA: Bull.
- Stunkard, A. J., & Wadden, T. A. (1992). Psychological aspects of severe obesity. *American Journal of Clinical Nutrition*, 55(Suppl. 2), 524S–532S.
- Throsby, K. (2012). Obesity surgery and the management of excess: exploring the body multiple. *Sociology of health & illness*, 34(1), 1-15. doi: 10.1111/j.1467-9566.2011.01358.x. Epub 2011 May 6. PMID: 21554331.
- Timurturkan, M. G. (2008). Felsefi bedenden sosyolojik bedene. *Ethos*, 1(4), 1-14.
- Turner, R. G., Gilliland, L., & Klein, H. M. (1981). Self-consciousness, evaluation of physical characteristics, and physical attractiveness. *Journal of Research in Personality*, 15(2), 182–190. doi:10.1016/0092-6566(81)90017-9.
- Turner, B. S. (1992) *Regulating Bodies: Essays in Medical Sociology*, London: Routledge.
- Tsichlia, G., & Johnstone, A. (Eds.). (2010). *Fat Matters: From Sociology to Science*. M&K Update Ltd.

Yıldırım, A., & Simsek, H. (1999). Sosyal bilimlerde nitel araştırma yöntemleri (11 baskı: 1999-2018).

Yılmaz, C., (2004), "Risk Kavramının Farklı Sosyolojik Yapılarda Araştırılması-İzmir Örneği", Ege Üniversitesi, Sosyal Bilimler Enstitüsü, Kurumlar Sosyolojisi Anabilim Dalı, Doktora Tezi, Danışman: Doç. Dr. H. Neşe Özgen, İzmir.

World Obesity Atlas (2023) <https://data.worldobesity.org/publications/WOF-Obesity-Atlas-V5.pdf>. (erişim tarihi: 29.11.2024).

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