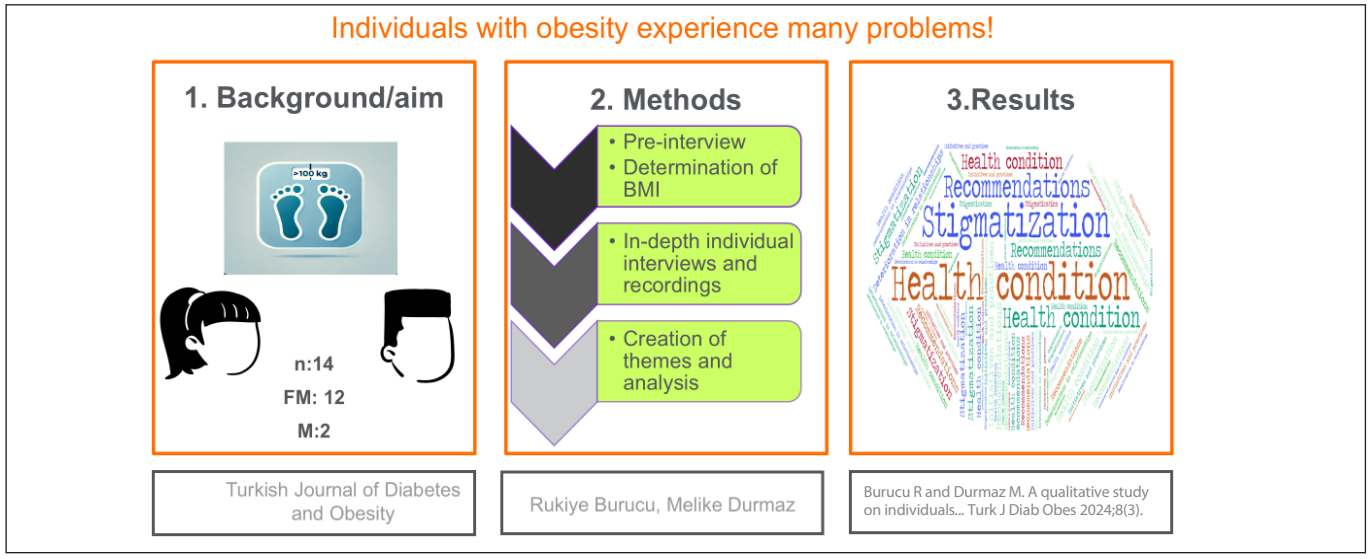
Turkish Journal of Diabetes and Obesity / *Türkiye Diyabet ve Obezite Dergisi*
Original Article / Özgün Araştırma

A Qualitative Study on Individuals with Obesity: What do They Experience? How do They Feel? What are Their Expectations?

Rukiye BURUCU[1], Melike DURMAZ[2]
[1]Necmettin Erbakan University, Seydişehir Kamil Akkanat Faculty of Health Sciences, Division of Medical Diseases Nursing, Konya, Türkiye
[2]Selcuk University, Faculty of Nursing, Department of Surgical Nursing, Konya, Türkiye

Cite this article as: Burucu R and Durmaz M. A qualitative study on individuals with obesity: what do they experience? How do they feel? What are their expectations? Turk J Diab Obes 2024;8(3): 256-264.

GRAPHICAL ABSTRACT



ABSTRACT

Aim: Obesity is one of the important problems of the age. In this article, it was aimed to determine the experiences of individuals living with obesity in Konya province, their efforts to cope with obesity and their suggestions for the field.

Material and Methods: This is a qualitative study. May July 2022 Research data were collected through in-depth individual face-to-face interviews. Traditional qualitative data analysis and Colaizzi's phenomenological interpretation method were used. This study was reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines. The participants were individuals with obesity.

Results and Conclusion: The sample consisted of 12 people. The average age of the individuals was 56.58±7.07 years, body mass index (BMI) was 48.69±10.41 and the majority (83.3%) were women. The experiences of individuals were collected under a total of 370 codes, including 14 categories and five themes. It has been determined that individuals with obesity have physical, psychological problems and negative experiences such as stigma. Environmental regulations and raising the awareness of health personnel can reduce the disadvantages experienced by obese individuals.

Keywords: *Obesity, Experience, Nursing*

ORCID: Rukiye Burucu / 0000-0002-9284-5486, Melike Durmaz / 0000-0002-6028-5592

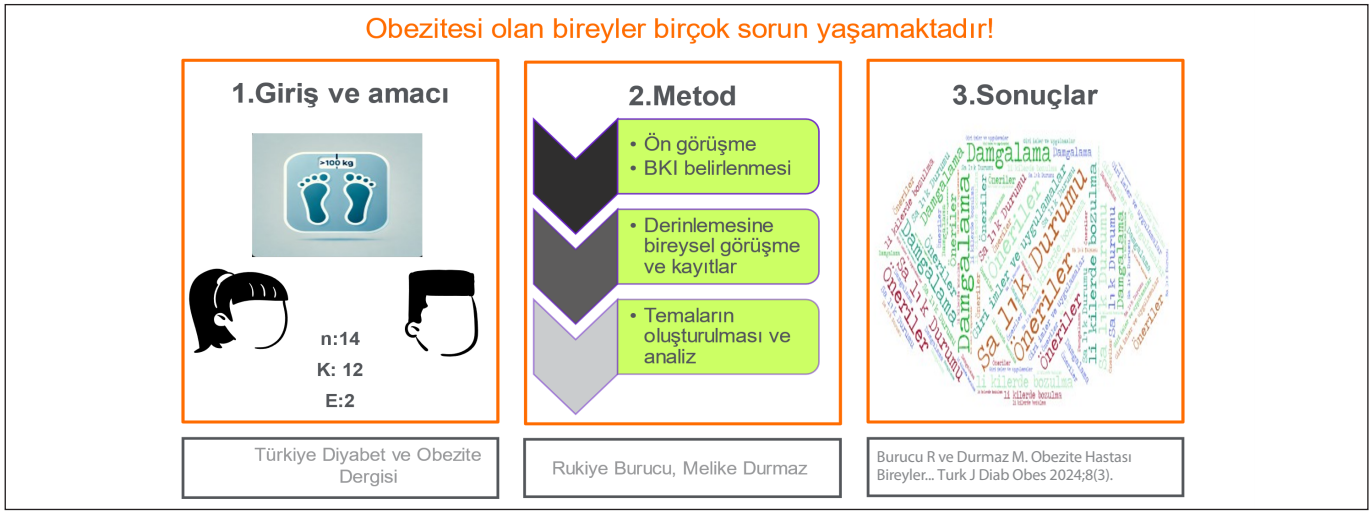
Correspondence Address / Yazışma Adresi:
Rukiye BURUCU
Necmettin Erbakan University, Seydişehir Kamil Akkanat Faculty of Health Sciences, Division of Medical Diseases Nursing, Konya, Türkiye • Phone: +90 (332) 582 60 00 • E-mail: rukiye.burucu@erbakan.edu.tr

DOI: 10.25048/tudod.1512661

Received / *Geliş tarihi* : 08.07.2024
Revision / *Revizyon tarihi* : 11.11.2024
Accepted / *Kabul tarihi* : 04.12.2024

Obezite Hastası Bireyler Üzerine Nitel Bir Çalışma: Ne Deneyimliyorlar? Nasıl Hissediyorlar? Beklentileri Nelerdir? Konya İlinden Bir Örnek

GRAFİKSEL ÖZET



ÖZ

Amaç: Obezite çağın önemli sorunlarından biridir. Bu makalede Konya ilinde obezite ile yaşayan bireylerin deneyimlerinin, obezite ile baş etme çabalarının ve alana yönelik önerilerinin belirlenmesi amaçlanmıştır.

Gereç ve Yöntemler: Bu nitel bir çalışmadır. Mayıs Temmuz 2022 Araştırma verileri derinlemesine bireysel yüz yüze görüşmeler yoluyla toplanmıştır. Geleneksel nitel veri analizi ve Colaizzi'nin fenomenolojik yorumlama yöntemi kullanılmıştır. Bu çalışma, Nitel Araştırmaların Raporlanması için Konsolide Kriterler (COREQ) kılavuzuna uygun olarak raporlanmıştır. Katılımcılar obezite hastası bireylerdir.

Bulgular ve Sonuç: Örneklem 12 kişiden oluşmaktadır. Bireylerin yaş ortalaması 56,58±7,07 yıl, beden kütle indeksi (BKİ) 48,69±10,41 ve çoğunluğu (%83,3) kadındır. Bireylerin deneyimleri 14 kategori ve beş tema olmak üzere toplam 370 kod altında toplanmıştır. Obeziteye sahip bireylerin fiziksel, psikolojik sorunları ve damgalanma gibi olumsuz deneyimleri olduğu tespit edilmiştir. Çevresel düzenlemeler ve sağlık personelinin farkındalığının artırılması obez bireylerin yaşadığı dezavantajları azaltabilir.

Anahtar Sözcükler: *Obezite, Deneyim, Hemşirelik*

INTRODUCTION

Obesity is defined as a complex and multifactorial chronic disease characterized by abnormal and excessive accumulation of fat. Cases where the Body Mass Index (BMI) is greater than 30 are considered as obesity. The prevalence of obesity has tripled since 1975, and it is estimated that by the year 2025, approximately 167 million individuals will be obese who (1).

It has been reported that individuals with obesity experience negative impacts physiologically, psychologically, socially, and economically (2-6). The primary focus for resolving these issues is achieving the target weight and maintaining healthy physiology (7-9). Monitoring and supporting individuals throughout this process significantly contribute to their weight loss (2,10-12). However, some studies have indicated biases among nurses towards individuals with obesity (13,14). These biases may even originate during the educational process (15,16), and they not only hinder the support for weight loss but also exacerbate the negative emotions experienced by individuals with obesity (17).

Numerous studies have so far been conducted on individuals with obesity (4-6,9,18-22). It is recommended that healthcare professionals create environments where individuals with obesity can discuss and assess their excess weight, and studies in this regard are encouraged (23). Therefore, this study is envisaged to be effective in allowing individuals with obesity to share their in-depth individual perspectives, emotions, thoughts, and experiences through interviews, contributing to the literature.

The aim of this study is to identify the experiences of individuals with obesity, their efforts to overcome obesity, and their recommendations for the healthcare field.

MATERIALS and METHODS

This is a qualitative study which employed an in-depth individual interview approach. Research permission was received for the research from Necmettin Erbakan University Health Sciences Scientific Research Ethics Committee (Date: 06.04.2022; 2022/186: ID: 21-186). The Declaration of Helsinki was complied with at all stages of the research, and written consent was obtained from the participants. This study is reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines. All data collected during the research process was encrypted and stored on the researcher's computer without disclosing personal names.

Research population and sample

The target population of the study consists of individuals with a Body Mass Index (BMI) greater than 30. Participants were reached through purposive snowball sampling. While sample size calculation is not recommended in qualitative studies, it is suggested that 5-25 participants are suitable for purposive sampling, emphasizing the importance of reaching data saturation (24). Therefore, without performing a sample size calculation, data collection continued until data saturation was achieved.

The research center is Konya province. For purposive sampling, individuals from the environment where the researchers could easily reach were reached. The first individuals reached were four people with obesity in the immediate vicinity of the researcher. Other participants were reached through these individuals. The study was conducted using snowball sampling method. Participants were individuals residing within the borders of Konya province.

The inclusion criteria for the research were: (a) having a BMI greater than 30, (b) being 18 years or older, and (c) consenting to participate in the study. The exclusion criteria were: (a) being in the terminal stage, (b) having cognitive problems, and (c) having communication barriers.

The dependent variables of the study are individuals' experiences (weight loss experience, encountered biases, methods used, and recommendations).

Independent variables, on the other hand, are body mass index, age, gender, educational status, employment status, income level, presence of chronic illness, history of surgical procedures, hospital experience, and weight loss status.

Data Collection Procedure

The research data were collected between May-July 2022 after obtaining the necessary permissions. Individuals with obesity were first informed about the study. Those who agreed to participate in the study were invited to the institution where the researcher worked, height and weight measurements (height and weight scales) were made. Height and weight measurement tools available in the application laboratory of the institution were used in the measurements. Written informed consent was obtained from those who met the inclusion criteria. Interviews were conducted in the interview room created in the researcher's institution at a time convenient for the participants. First, sociodemographic information of the participants was collected with the participant information form, and then in-depth individual interviews were conducted. In-depth individual interviews lasted 30-60 minutes. Audio recordings were made during the interviews and these recordings were transcribed within the first 24 hours after the interview. The transcripts were reviewed after each interview and evaluated for data saturation, and the data collection process was terminated when similar results were obtained that consistently indicated data saturation.

Data Collection Forms

The data were collected using the Participant Information Form (PIF) and the Semi-Structured Interview Guide (SSIG).

Participant Information Form (PIF): The form consists of 12 questions designed to determine the general characteristics of the participants and prepared based on the literature (6,14).

Semi-Structured Interview Guide (SSIG): The semi-structured interview guide includes 5 questions. The questions were formulated by obtaining the opinions of two expert researchers in the field, and a Miles-Huberman intercoder reliability analysis (0.82) was conducted before use. The questions are provided below:

1. How does being overweight affect your daily life?
2. Are there things that influence you when trying to lose weight?
3. What methods have you applied to lose weight so far?
4. Have you experienced any problems due to your weight during your hospital experience?
5. Do you have any recommendations on this matter?

Data Analysis

In the evaluation of qualitative data, Colaizzi's traditional qualitative data analysis method was employed (25). Significant expressions were identified from the interview records, and they were interpreted, grouped. As a result, codes, categories, and themes were established. To ensure the reliability of the study, Miles-Huberman compatibility analysis was conducted on the themes identified by the coders. Following the individual creation of themes by each researcher, two separate faculty members with qualitative research experience were also tasked with developing themes. Miles-Huberman compatibility analysis was conducted by four separate evaluators, resulting in a calculated compatibility of 0.88. The deductive approach was utilized in creating themes, while the inductive method was employed in finalizing themes. In instances of uncertainty, the researchers sought the opinion of an expert faculty member in qualitative research for guidance.

In the study, credibility and transferability were utilized for validity. To ensure credibility, interviews were conducted at a time convenient for participants. The participants' statements were summarized by the researcher during the interviews and confirmed through feedback (26). For reliability, each stage of the study was detailed, documented, and the method of the research was presented comprehensively to ensure confirmability (27). To maintain consistency, a standardized format was created for in-depth individual interviews, and each interview was conducted using the Semi-Structured Interview Guide format in line with this template (26).

RESULTS

In this research, the mean age of the participants was 56.58±7.0 years, and their BMI was 48.69±10.4 kg. The majority of participants were female (83.3%), married (91.7%), and unemployed (58.3%), and had completed middle school (66.7%), had an income equal to expenses (41.7%), had chronic illness (75.0%), had an obese family member (91.7%), and had a hospitalization experience (58.3%). All participants (100.0%) had engaged in various attempts to lose weight (Table 1). A total of 370 codes were identified in the research. These codes were grouped in terms of meaning and relationship, forming 14 categories and 5 themes. The themes are 'Health condition,' 'Stigmatization,' 'Deterioration in relationships,' 'Initiatives and Practices,' and 'Recommendations' (Table 2).

Table 1. Participant Characteristics (n=12).

Characteristics	Findings (n=12)
Age (year±SD)	56.6 ±7.0
BMI (kg/m² ±SD)	48.7 ±10.4
Gender, n (%)	
Female	10 (83.3)
Male	2 (16.7)
Marital status, n (%)	
Married	11 (91.7)
Single	1 (8.3)
Level of education, n (%)	
Illiterate	1 (8.3)
Primary school	2 (16.7)
Middle school	8 (66.7)
University and above	1 (8.3)
Employment status, n (%)	
Unemployed	7 (58.3)
Retired	4 (33.3)
Wage worker	1 (8.3)
Income level, n (%)	
Income<expenses	4 (33.3)
Income=expenses	5 (41.7)
Income>expenses	3 (25.0)
Presence of chronic disease, n (%)	
Yes	9 (75.0)
No	3 (25.0)
Presence of an obese individual in the family, n (%)	
Yes	11 (91.7)
No	1 (8.3)
Hospitalization experience, n (%)	
Yes	7 (58.3)
No	5 (41.7)
Effort to lose weight, n (%)	
Yes	12 (100.0)
No	0 (0.00)

Themes

Theme 1: Health Condition

Participants' statements indicated that individuals struggle physically, face challenges in daily activities and personal care, experience psychological issues, and encounter difficulties in accessing healthcare. Some expressions are provided below:

"When I eat too much, I can't breathe. I started to develop blood pressure and sugar problems. The most important thing is that I struggle with personal hygiene. I can't cut my toenails; I have to choose shoes without laces, and I can't move quickly. If I move a little fast, I sweat a lot. I have to carry spare clothes with me all the time and change them. Sometimes I change not only my undershirt but all the clothes on me" (P2).

Table 2. Codes, Categories and Themes

Codes	Categories	Themes
Difficulty in daily activities (n=12) Difficulty in cutting toenails (n=11) Difficulty in self-care (n=11) Difficulty in putting on and taking off shoes (n=8) Difficulty in taking a bath (n=7)	Physical difficulties	Health condition
Joint diseases (n=11) Hypertension (n=10) Chronic pain (n=10) Sleep disorder (n=9) Diabetes (n=8) Skin diseases (n=6) Urinary incontinence (n=4) Infertility (n=1)	Chronic diseases	
Sadness (n=12) Anxiety (n=12) Unhappiness (n=11) Anger (n=11) Fear of dependence (n=10) Guilt (n=8) Withdrawal/social isolation (n=7) Hopelessness (n=6) Loneliness (n=3)	Psychological problems	
Anxiety (n=6) Depression (n=3)	Mental disorders	
Difficulty in measuring blood pressure (n=11) Difficulty in accessing veins (n=10) Delayed healing process (n=5) Having to use a lot/strong/high dose of medication (n=1)	Problems experienced during health service	
Societal prejudice (n=11) Healthcare personnel prejudice (n=4)	Prejudices	Stigmatization
Interpersonal issues (n=8) Disturbance in family relationships (n=4) Disturbance in marital relationships (n=3)	Social challenges	Deterioration in relationships
Going on a diet (n=12)	Calorie reduction	Initiatives and practices
Consulting a doctor (n=8) Dietitian (n=5) Botox (n=1)	Medical support	
Walking (n=10) Sports (n=7) Exercise (n=7)	Increasing physical activity	
Herbal therapy applications (n=2) Use of weight loss tablets (n=2)	Alternative interventions	
It should be easier to find suitable clothing (n=12) Chairs should be wide enough (n=7) Chair height should be adjustable (n=7) Beds/beds should be wide enough (n=8) Toilets should be wide enough (n=12)	Ergonomic solution recommendations	Recommendations
Healthcare personnel should have good communication (n=10) They should be able to empathize (n=3)	Attitude and behavior recommendations	
They should have expertise in the field (n=2)	Educational recommendations	
Total Codes=370	Categories=14	Themes= 5

"I haven't been able to have a child due to my weight. What more can I say? I've been married for 31 years, and I'm immensely grateful to my husband. No matter how much I pray, it seems insufficient. I didn't struggle with weight issues when I was younger; it developed later on. I visited the doctor numerous times in hopes of having a child. Initially, they found nothing visibly wrong. However, it was only later, with another doctor, that I was told my weight was a significant factor" (P4).

Theme 2: Stigmatization

The participants expressed experiencing 'stigmatization.' They reported facing stigmatization both during healthcare encounters with hospital staff and due to societal prejudices. Some statements include:

"When I get on the bus, no one wants to sit next to me. They don't voice it, but I can sense it from their glances. I end up shrinking even further and compacting myself as I sit down (physically attempting to appear smaller). Ironically, I might occupy less space than the average person, yet it seems to make others uncomfortable, and I'm aware of it" (P3).

"I'm tired of them telling me to lose weight every time I go to a doctor. If I could, I would. I'm not stupid, but I can't do it. I'm tired of them seeing my weight before my illnesses. I got COVID, and they said, 'You're overweight.' Did only overweight people get COVID?" (P4).

Theme 3: Deterioration in Relationships

It was found that participants experienced negativity in both intra-family and social, as well as interpersonal relationships. Some statements include:

"I divorced my first husband; this is my second marriage. My first husband would criticize me for being overweight; sometimes he found me disgusting. He even told me he was ashamed of me (Her eyes filled with tears, and her voice trembled as she continued). To please my husband, I underwent breast reduction. I also wanted to reduce in size, but my primary goal was for my husband to perceive me as beautiful. Eventually, despite enduring numerous hardships, it wasn't worth it, and we ended up getting divorced" (P1).

"Particularly when guests visit or when I attend events, it inevitably revolves around food and drinks, and it irritates me. I become upset, feeling as if they are scrutinizing every bite. Even my children, when they advise me to lose weight, I sense they are monitoring what I consume. It makes me quite angry" (P3).

"I get angry quickly and give sudden reactions. I interpret almost every word said as wrong. I often become sensitive. I get angry at my husband and children for no reason. We experience tension at home as a family. I don't see my neighbors and friends much anymore" (P7).

Theme 4: Initiatives and Practices

Participants' weight loss initiatives and practices were grouped into medical support, increasing physical activity, and using alternative methods. Some expressions from participants include:

"I visited numerous doctors, and they all gave me the same advice. They emphasized the need for weight loss. Nevertheless, I didn't find much guidance on how to achieve it; I briefly reduced my intake of bread" (P3).

"I walked four kilometers every day, yet it proved insufficient. Following my walks, I would experience increased hunger, leading me to consume even more food" (P8).

"I consume this amount (indicating a small portion with her hand). I prepare delicious meals, eat like everyone else, limit myself to just one slice of bread, but I struggle with excess weight. I've tried working with a dietitian, but it didn't yield results. I attempted walking, but after a short while, my legs couldn't keep up" (P6).

Theme 5: Recommendations

The suggestions for ergonomic solutions in the healthcare field and recommendations regarding the behavior of healthcare personnel for individuals with obesity have been included. Participants' statements indicate issues related to fitting into hospital spaces where lying, sitting, and examinations are conducted, as well as problems with toilet height. Communication difficulties with healthcare personnel were also reported. Some statements from participants include:

"During the past year, I underwent gallbladder surgery. The hospital-provided surgical gown, patient bed, and operating table were incredibly small, beyond description. I couldn't even fit into the surgical gown; they merely covered me. For the surgery, they had to combine two operating tables and place me on them. These discussions took place right in front of me, and I felt as if I were sinking into the ground" (P5).

"When the nurse came to my room, she wouldn't look at my face. She would give me my medicine and leave right away. It seemed like she didn't want to deal with me. When she spoke to me, I thought of saying, 'Is obesity contagious?'" (P6).

DISCUSSION

The research aimed to uncover the experiences and recommendations of individuals with obesity. The results have been discussed in light of the literature.

Previous research has indicated that obesity increases the risk of cardiovascular diseases and associated problems (28), exacerbates joint diseases (29), and leads to dermatological issues in many overweight individuals (30). Additionally, obesity has been reported to contribute to depressive conditions, with depressive symptoms in individuals with obesity being twice as prevalent compared to non-individuals with obesity (31). Despite appearing as a physical change, obesity can serve as the underlying cause for multiple health issues.

The majority of individuals with obesity experience a decline in their quality of life due to the physical changes they undergo. This is because these physical changes lead to fundamental problems/limitations such as restricted mobility and difficulties in fulfilling basic needs like bathing and toilet use (32). It may be appropriate to assess the limitations caused by obesity based on daily life activities and generate solutions to address these limitations.

İndividuals with obesity may require healthcare services for various reasons, but they can encounter different challenges during this process. In this study, the most commonly expressed issues by participants are difficulties in blood pressure measurement and vascular access. The thickening of the entire body due to increased subcutaneous fat tissue can create hindrances for interventional procedures. This thickness complicates vascular access, making both entering the vein and palpating the artery for blood pressure measurement more challenging (33). It might be advisable to exercise extra caution in procedures requiring vascular access/palpation in individuals with obesity. Similarly, ensuring the suitability of patient beds, operating tables, chairs, and seating for individuals with obesity, and developing technologies and perspectives that facilitate procedures for them could be recommended.

For individuals with obesity, stigmatisation and discrimination is a major concern (34). Studies have consistently reported the prevalence of stigma among individuals with obesity, with some describing it as a situation worse than simply being overweight (34,35). Research by Puhl et al. has highlighted that stigma leads to adverse psychosocial outcomes. Healthcare professionals have been shown to harbor biases and engage in discriminatory attitudes and behaviors towards individuals with obesity in healthcare settings (6,34). Acknowledging the discomfort experienced by individuals with obesity due to this stigma, both by healthcare professionals and the broader society, and promoting more considerate and attentive behaviors towards individuals with obesity in social and communal spaces, would be appropriate.

It is well-documented that individuals with obesity often face depression (36), leading to reduced social interactions and poorer relationships with family and close social circles compared to non-individuals with obesity (37,38). It should be noted that obesity can particularly negatively impact communication between partners. Opting for a comprehensive approach in the assessment of individuals with obesity may open doors to solutions for interpersonal issues.

İndividuals with obesity engage in various weight-loss efforts such as following diets, seeking medical support, and increasing physical activity. It has been observed that the most preferred methods for weight loss involve regulating nutrition and engaging in exercise, with an emphasis on the significant contribution of nurses in this process (39). Nurses guiding and supporting patients in their weight-loss journey can provide valuable contributions.

Hospitals should consider the ergonomic arrangement of materials/equipment used. It is recommended to develop ergonomic solutions and make adjustments tailored to individuals with obesity (40). A textile company in India has highlighted the significant problem for individuals with obesity in accessing sufficiently wide clothing and has developed alternative solutions for this issue (41). Over the years, hospitals have continued to make adjustments to enhance patient comfort (42). It would be appropriate to implement arrangements in hospitals and other public spaces to provide suitable clothing, beds, stretchers, toilets, etc., for individuals with obesity.

Conclusion and Recommendations

İndividuals with obesity experience communication issues, stigmatization, ergonomic problems, and health-related challenges. Individuals have often attempted weight loss through diet, exercise, and sports. Recommendations include healthcare professionals being more attentive in their communication, healthcare institutions organizing spaces and materials to be suitable for individuals with obesity, and increasing awareness among nurses. It is suggested that healthcare institutions consider the needs of individuals with obesity in their arrangements, and necessary adjustments are made.

Strengths and Limitations

The study used an appropriate sampling method starting from the family environment and was limited to Konya province, which constitutes a limitation as the findings cannot be generalized to the broader population. None-

theless, the research possesses notable strengths, such as its emphasis on individuals with a high BMI, the utilization of in-depth individual interviews, the involvement of a nurse with expertise in internal medicine and another in surgical nursing for conducting the interviews, the inclusion of two additional experts in the analysis process, and the performance of compatibility analysis.

Acknowledgments
Thank you to all the participants who participated in the study.

Author Contributions
Conceptualization, methodology, investigation, resources data curation, writing - original draft, visualization, In-depth interview, Creation of themes, Analysis of data: **Rukiye Burucu,** Conceptualization, methodology, resources software, validation, formal analysis, writing - review & editing, In-depth interview, Creation of themes, Analysis of data : **Melike Durmaz.**

Conflict of Interest
Presented as an oral presentation at the 2nd International Multidisciplinary Medical and Health Sciences Studies Congress (27-28 May 2024). There is no conflict of interest between the authors.

Funding
No funding was used for the research. All expenses were provided by the researchers.

Ethical Approval
Research permission was received for the research from Necmettin Erbakan University Health Sciences Scientific Research Ethics Committee (Date: 06.04.2022; 2022/186: ID: 21-186).

Peer Review Process
Extremely and externally peer-reviewed.

REFERENCES

1. Okunogbe A, Nugent R, Spencer G, Ralston J, Wilding J. Economic impacts of overweight and obesity: current and future estimates for eight countries. BMJ Glob Heal [Internet]. 2021 Oct 4;6(10):e006351. https://linkinghub.elsevier.com/retrieve/pii/S0140673620307522
2. Chu DT, Minh Nguyet NT, Nga VT, Thai Lien N V, Vo DD, Lien N, Vo DD, Lien N, Nhu Ngoc, V T, Son, L H, Le, D H, Nga, V B, Van Tu, P, Van To, T, Ha, L S, Tao, Y, Pham, V H. An update on obesity: Mental consequences and psychological interventions. Diabetes Metab Syndr. 2019;13(1):155-60.
3. Elçi Boğaz M, Kutlu R, Cihan FG. The relationship between obesity and eating behavior, body image and self-esteem. Cukurova Med J. 2019;44(3):1064-73.
4. Jester R, Rodney A. The relationship between obesity and primary Total Knee Replacement: A scoping review of the literature. Int J Orthop Trauma Nurs. 2021;42:100850.
5. Lillis J, Thomas JG, Levin ME, Wing RR. Self-stigma and weight loss: The impact of fear of being stigmatized. J Heal Psychol . 2020;25(7):922-30.: https://www.ncbi.nlm.nih.gov/pubmed/29105491
6. Puhl RM, Himmelstein MS, Pearl RL. Weight stigma as a psychosocial contributor to obesity. Am Psychol . 2020;75(2):274-89. (Erişim Tarihi: 12.09.2022 : https://www.ncbi.nlm.nih.gov/pubmed/32053000)
7. Jung S, Whittemore R, Jeon S, Nam S. Mediating roles of psychological factors and physical and social environments between socioeconomic status and dietary behaviors among African Americans with overweight or obesity. Res Nurs Heal . 2021;44(3):513-24. (Erişim Tarihi: 11.09.2022 : https://www.ncbi.nlm.nih.gov/pubmed/33782981)
8. Memon AN, Gowda AS, Rallabhandi B, Bidika E, Fayyaz H, Salib M, et al. Have Our Attempts to Curb Obesity Done More Harm Than Good? Cureus .2020;12(9):e10275. (Erişim Tarihi:02.10.2022: https://www.ncbi.nlm.nih.gov/pubmed/33042711)
9. Rana ZH, Reed DB, Oldewage-Theron W, Lyford C, Colwell M, Dawson JA. Overweight or Obesity Onset and Past Attempts to Lose/Manage Weight: A Qualitative Study. Obesities. 2021;1(3):136-43.
10. Albano G, Rowlands K, Baciadonna L, Coco GL, Cardi V. Interpersonal difficulties in obesity: A systematic review and meta-analysis to inform a rejection sensitivity-based model. Neurosci Biobehav Rev . 2019;107:846-61. Erişim Tarihi: 05.12.2022: https://www.ncbi.nlm.nih.gov/pubmed/31585134)
11. Fernandez SD, Leon SG, Bazan MJA, Cerro J, Marques-Vieira CMA, Rivas FJP. Application of anthropometric methods in the nursing process of nursing research. Rev Bras Enferm . 2020;73(suppl 6):e20190604. (Erişim Tarihi:02.08.2022: https://www.ncbi.nlm.nih.gov/pubmed/33338128)
12. Sainsbury K, Evans EH, Pedersen S, Marques MM, Teixeira PJ, Lahteenmaki L, Stubbs, R J, Heitmann, B L, Sniehotta, F FAttribution of weight regain to emotional reasons amongst European adults with overweight and obesity who regained weight following a weight loss attempt. Eat Weight Disord. 2019;24(2):351-61. (Erişim Tarihi:05.12.2022: https://www.ncbi.nlm.nih.gov/pubmed/29453590)
13. Işık MT, Altun Ugras G, Uzanmaz Z. Are nurses biased against obese patients? Van Med J. 2019;26(4):491-7.
14. Yilmaz Yavuz A, Baysal H. Prejudice Obesity of Midwives and Nurses in the Primary Health Care. J Adnan Menderes Univ Heal Sci Fac. 2020;4(3):195-202.
15. Aydin T, Erçelİk ZE, Gönen B, Aydin D, Günşen U. Determining the Obesity Pre-Judgments of University Students. Balıkesir Heal Sci J. 2020;9(2):66-74.
16. Bellikçi Koyu E, Karaağaç Y, Miçooğullari Ş. Obesity Prejudice and Related Factors Among Health Sciences Students. Turkish J Diabetes Obes. 2020;4(3):260-9.
17. Williams O, Annandale E. Obesity, stigma and reflexive embodiment: Feeling the "weight" of expectation. Heal . 2020;24(4):421-41. (Erişim Tarihi:05.10.2022: https://www.ncbi.nlm.nih.gov/pubmed/30428717)
18. Geng J, Ni Q, Sun W, Li L, Feng X. The links between gut microbiota and obesity and obesity related diseases. Biomed Pharmacother. 2022 Mar;147:112678.

19. Zabar S, Adams J, Kurland S, Shaker-Brown A, Porter B, Horlick M, Hanley, K, Altshuler, Kalet, A, Gillespie, C. Charting a Key Competency Domain: Understanding Resident Physician Interprofessional Collaboration (IPC) Skills. J Gen Intern Med . 2016;31(8):846-53. (Erişim Tarihi:05.01.2022: https://www.ncbi.nlm.nih.gov/pubmed/27121308)
20. Cooper L, Ells L, Ryan C, Martin D. Perceptions of adults with overweight/obesity and chronic musculoskeletal pain: An interpretative phenomenological analysis. J Clin Nurs . 2017/11/18. 2018;27(5-6):e776-86. (Erişim Tarihi:05.12.2022: https://www.ncbi.nlm.nih.gov/pubmed/29148620)
21. Hamer O, Larkin D, Relph N, Dey P. Fear as a barrier to physical activity in young adults with obesity: a qualitative study. Qual Res Sport Exerc Heal . 2023;15(1):18-34. (Erişim Tarihi:17.05.2022: https://www.tandfonline.com/doi/full/10.1080/2159676X.2021.2012243)
22. McVay MA, Yancy Jr. WS, Bennett GG, Jung SH, Voils CI. Perceived barriers and facilitators of initiation of behavioral weight loss interventions among adults with obesity: a qualitative study. BMC Public Health . 2018;18(1):854. (Erişim Tarihi:05.11.2022: https://www.ncbi.nlm.nih.gov/pubmed/29996812)
23. Ringel MM, Ditto PH. The moralization of obesity. Soc Sci Med . 2019;237:112399. (Erişim Tarihi:15.04.2022: https://www.ncbi.nlm.nih.gov/pubmed/3137750)
24. Creswell JW. Nitel Araştırma Yöntemleri (Beş Yaklaşıma Göre Nitel Araştırma ve Araştırma Deseni). 3rd ed. Demir SB, Bütün M, editors. Ankara: Siyasal Kitabevi; 2021. 83 p.
25. Morrow R, Rodriguez A, King N. Colaizzi's descriptive phenomenological method. Psychologist. 2015;28(8):643-4.
26. Çelebi M. Nitel Araştırma Yöntemleri. Pagem Akad. 2021;Ankara, 1. Baskı:186-209.
27. Yıldırım A, Şimşek H. Nitel Araştırmalarda geçerlik ve Güvenirlik(in Sosyal Bilimlerde Nitel Araştırma Yöntemleri). Seçkin Akad ve Mesleki Yayınlar. 2021;Ankara, 12. Baskı:269-99.
28. Bao B, Guo J, Zhang L, Pan Z, Huang H, Qin Z, Chen L, Zhou X, Liu B. Effects of obesity-related anthropometric indices and body composition on erectile dysfunction mediated by coronary artery disease: A Mendelian randomization study. Andrology . 2024;12(1):75-86. (Erişim Tarihi:13.06.2024: https://onlinelibrary.wiley.com/doi/10.1111/andr.13443
29. Shumnalieva R, Kotov G, Monov S. Obesity-Related Knee Osteoarthritis—Current Concepts. Life. 2023;13(8):1650.
30. Palanivel JA, Millington GWM. Obesity-induced immunological effects on the skin. Ski Heal Dis . 2023;3(3):e160. (Erişim Tarihi:13.12.2023: https://onlinelibrary.wiley.com/doi/10.1002/ski2.160)
31. Plackett B. The vicious cycle of depression and obesity. Nature. 2022;608(7924):S42-3.
32. Burucu R, Durmaz M. Giving Nursing Care to the Patient who Underwent Total Hip Replacement Surgery Using the Roy Adaptation Model: A Case Report and Sample Care Plan. Hemşirelik Bilim Derg. 2020;3:36-43.
33. Rodriguez-Calero MA, Blanco-Mavillard I, Morales-Asencio JM, Fernandez-Fernandez I, Castro-Sanchez E, de Pedro-Gomez JE. Defining risk factors associated with difficult peripheral venous Cannulation: A systematic review and meta-analysis. Hear Lung . 2020;49(3):273-86. (Erişim Tarihi:11.02.2022:https://www.ncbi.nlm.nih.gov/pubmed/32057426)
34. Ryan L, Coyne R, Heary C, Birney S, Crotty M, Dunne R, Conlan O, Walsh JC. Weight Stigma Responses: Patient Perceptions and Experiences of Interactions With Healthcare Professionals Across Healthcare Settings-A Qualitative Evidence Synthesis Protocol. Int J Qual Methods. 2022;21:160940692211027.
35. Yazdani N, Hosseini SV, Amini M, Sobhani Z, Sharif F, Khazraei H. Relationship between Body Image and Psychological Well-being in Patients with Morbid Obesity. Int J community based Nurs midwifery . 2018;6(2):175-84. (Erişim Tarihi:18.06.2020: http://www.ncbi.nlm.nih.gov/pubmed/29607346
36. Lindberg L, Hagman E, Danielsson P, Marcus C, Persson M. Anxiety and depression in children and adolescents with obesity: a nationwide study in Sweden. BMC Med. 2020;18(1):30.
37. Yunus NA, Russell G, Muhamad R, Chai TL, Ahmad Zawawi MAF, Sturgiss E. The experience of living with obesity for adults in Asian countries: A scoping review of qualitative studies. Obes Rev. 2023;24(11).
38. Yazdani N, Sharif F, Elahi N, Hosseini S, Ebadi A. Exploration of the Quality of Life in Iranian Morbid Obese People: A Qualitative Study. IJCBNM. 2019;7(2):138-49.
39. Odgers KR, Jurado LFM, Kamienski M. Nurse Practitioner-Led Ketogenic Diet for Adults With Overweight/Obesity. J Nurse Pract. 2023;19(2):104478.
40. Güçhan Topçu Z, Tomaç H, Önkol Y, Korucu G. Determining the Accessibility of Social Places in Famagusta for People with Disabilities Using Wheelchair. Sağlık ve Toplum. 2022;32(2):165-70.
41. Kumari A, Anand N. Exploration of Indian plus-size women's ready-to-wear: problems and preferences. J Fash Mark Manag An Int J. 2023;27(6):1088-112.
42. Aksoy E, Aydın D. A research on the differentiation of hospital designs from past to present based on patient rooms. Bodrum J Art Des. 2022;1(2):221-40.