



Bio-Psychological Dimensions of Sexual Experiences in Obese Women: A Qualitative Study of Semi-structured Interviews

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Abstract

Objectives: Obesity is a significant global health issue. Given its increasing prevalence and the importance of sexual satisfaction in strengthening marital relationships and overall family and community health, this study aimed to explore the sexual experiences of women with obesity.

Materials and Methods: This qualitative study involved interviewing women with obesity who were seeking treatment at clinics and obesity surgery centers in Tehran. In-depth semi-structured interviews with open-ended questions were conducted by the researcher. The interviews were then analyzed qualitatively, and codes were categorized accordingly.

Results: The study included interviews with obese women, resulting in three general categories. Under the physical dimensions category, two main categories emerged: individual-physical challenges and perceived physical-sexual experiences. In the psychological dimensions category, two main categories were identified: body identity structure and perceived psycho-sexual experiences. Lastly, under the social dimensions category, three main categories were obtained: interpersonal relationships, influence of important people, and influence of the media.

Conclusions: Sexual orientation is a crucial aspect that significantly impacts individual and social life. The satisfaction of these desires plays a decisive role in human personality development. It is inevitable that these desires are separate from an individual's behavior. This study highlights that apart from obesity, a person's attitudes and beliefs about sexual issues can directly affect their sexual relationships.

Keywords: Sexual experience, obesity, women

Introduction

Obesity is one of the most important health concerns which is a complex chronic metabolic disease due to abnormal accumulation of or excess fat in the body due to an imbalance between energy intake and consumption (1,2). According to the report of the World Health Organization (WHO), more than 1.9 billion adults suffer from overweight, and 650 million from obesity (3). Over the past 20 years, obesity has increased significantly worldwide, and at least 2.8 million individuals die annually from being overweight or obese. It is estimated that by 2030, 60% of the world's population will become overweight or obese (4). It is associated with many physical complications, including cardiovascular diseases, diabetes, high blood pressure, pelvic floor disorders, urinary or fecal incontinence, various cancers, etc, which lead to a decrease in the quality of life of affected people and a higher death rate (1,2). It can also have negative effects on various aspects of health, including physical, mental, psychological, and social functions, functional roles, and some concepts such as spirituality, life satisfaction, and

sexual function (5).

Female sexual dysfunction includes a wide range of disorders, including decreased sexual desire, difficulty in arousal, inhibited orgasm, and pain during intercourse (6). It can affect many factors, including medical, psychological, social, and demographic factors, and is associated with feelings of distress, depressive symptoms, poor health, and sexual incompatibility with the partner (7,8). In general, the effect of obesity on women's sexual performance is complex (9). Considering the vagueness of the relationship between sexual dysfunction and obesity in women, the limited number of studies in this field, and the importance of the sexual needs of obese women, it seems necessary to conduct more studies in this field. Also, due to specific cultural and social restrictions on Iranian women, sexual issues are less discussed and need further assessment. Therefore, due to the increasing prevalence of obesity in society and to increase the sexual awareness of these women to strengthen marital relations and the foundation of the family, this qualitative study aimed to determine the sexual experiences of women with obesity.

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Key Messages

- ▶ Sexual orientation is a significant issue that impacts both individual and social aspects of human life.
- ▶ The fulfillment of sexual desires plays a crucial role in the development of one's personality.

Materials and Methods

Study Population

In this qualitative study, the sexual experiences of obese women were explained using open-ended in-depth semi-structured interviews and taking notes in the field (10).

The study was conducted on obese women with a body mass index (BMI) of ≥ 30 kg/m² who were referred to bariatric surgery clinics in Tehran for examinations, diet counseling, and health checks prior to undergoing bariatric surgery. The interviews took place at convenient locations and times chosen in coordination with the participants. Due to the ongoing COVID-19 pandemic, health protocols and social distancing measures were followed during the interviews.

The inclusion criteria for participants were being of reproductive age (18 to 45 years old), being married, having no sexual disorders in their spouses, having Iranian nationality, being literate, and providing consent to participate in the study. Exclusion criteria included having diabetes, high blood pressure, cardiovascular diseases, dyslipidemia, being over 45 years old or experiencing menopause, having a history of cancers, stroke, heart failure, end-stage kidney disease, chronic immobility or trauma to the pelvis, abnormalities of the lower genital tract or osteoarthritis. Additionally, individuals with known psychological diseases such as severe depression and anxiety disorders were excluded. Participants who reported alcohol or drug use including antidepressants or medications that decrease sexual desire or blood pressure were also excluded. Women whose spouses had sexual dysfunction were not included in the study.

The researcher selected the participants after checking the inclusion and exclusion criteria using convenience sampling to collect data from the subjects who are selected based on accessibility, geographical proximity, ease, speed, and or low cost (11).

We made an effort to ensure maximum diversity among the participants in terms of BMI, educational level, and cultural, social, economic, and demographic factors. The researcher conducted semi-structured interviews with the participants to gain a deep understanding of their sexual experiences. The interviews involved open-ended questions and the researcher also took field notes. The content analysis method was used to qualitatively analyze the interviews. After categorizing the data to identify key variables, the researcher aimed to comprehend, identify, and explain the sexual experiences of obese patients in their own words.

Data Collection

The package of questions was prepared by reviewing the texts, preliminary study, and consultation with experts and was obtained after some preliminary interviews. The interviews started with open and general questions and then continued based on how the participant responded in line with the research objectives.

Example of the questions asked in the interviews were as follows:

- Please explain your sexual relationships and the experiences you have.
- How is your sexual relationship with your spouse?
- How do you feel about sexual relations with your spouse?
- What is sex from your point of view? Explain your feeling and experience.
- What connection between sexual issues and obesity have you experienced? Or how do you think the experience of obesity has affected your married life?

Also, based on the need, exploratory questions such as “if possible explain more”, “what do you mean” and “why?” and “May you give an example so that I can better understand what you mean” was used to expand the findings. At the end of each interview, the participant was asked to state if there was anything left to say. Interviews were conducted face-to-face in clinics and bariatric surgery centers, etc., and were recorded after obtaining permission from the participants.

During the interview, the emotions of the participants, including tone of voice, pronunciation of words, laughter, crying, and pauses were also recorded. The duration of the interview was different depending on the conditions of the participants and was on average 45 minutes (30-65 minutes). To analyze the qualitative data, the method of content analysis with a conventional approach was used. In this method, the verbal communication of the participants that was recorded on the tape was copied along with the non-verbal communication. Then, the text of the transcribed interviews was entered into the MAXQDA version 11 software and the initial coding started at the same time. For initial coding, the researcher first read the interviews several times and checked the transcribed data line by line as analytical units and determined the related semantic units, and then coded them. The units of analysis were determined, including words, sentences, paragraphs, articles, news, etc. Similar texts and duplicates were removed.

The initial classification of codes started from the first interviews to form classes and sub-classes. In the subsequent interviews, the codes of each interview were compared with each other and with other codes of previous interviews to determine their similarities and differences, then the codes were placed in a special class based on the similarities they had with each other. Classes were reviewed several times and compared with each other, with the continuation of data collection and

analysis, some classes were merged or new classes were created. Each time, the necessary changes were made regarding the content and the name of the class that should be representative of it. Finally, after determining the classes based on the research data, corrections were made if needed. The researchers reached a sense of satisfaction and common agreement about the meaning of the data and what was expressed in the form of classes and sub-classes, their content, and names. In the final stage, according to the available data, a report of the data was presented.

Data Analysis

To ensure accuracy and reliability of the data in qualitative research, four criteria were used: validity, trustworthiness, verifiability, and transferability. To evaluate data reliability, the researcher reviewed and re-coded several interview texts after a few days and compared them with the initial coding. If common codes were achieved, data reliability was confirmed. Additionally, seeking input from experts in qualitative research and qualitative researchers helped with text coding. To ensure verifiability of findings, all stages of the research process including data collection and analysis were regularly documented and reviewed by supervisors.

Results

In the present study, 13 interviews were conducted with obese women with a BMI above 30, so 5 of them had first-degree obesity, 6 had second-degree obesity, and 2 had third-degree obesity. The mean age of the interviewed obese women was 38.46 years with a minimum of 33 years and a maximum of 48 years (Table 1).

Perceived Sexual Physical Experiences

Regarding the physical and sexual experiences associated with sexual desire, 3 out of the interviewees (23.07%) reported an improvement in their sexual desire after

becoming obese. All three of these individuals were women who had previously been at a normal weight before becoming obese. They mentioned that the effect of their spouse's sexual preferences and desire that like fat women more. On the other hand, 8 of the women (61.53%) stated that obesity did not affect their sexual desire. They attributed their desire to factors such as their mental state and the level of intimacy in their relationships. However, two women (38.15%) mentioned a negative impact of obesity on their sexual desire. One woman pointed to a decrease in self-confidence, while the other highlighted the role of negative body image.

In the arousal phase, 4 women (30.76%) mentioned the improvement of arousal and vaginal lubrication in obese women. While 8 of the interviewees (61.53%) stated that obesity did not affect their arousal phase, one (7.69%) mentioned the negative effect of obesity. Also, 3 of the interviewees (23.07%) mentioned the improvement of orgasm after obesity. Eight women (61.53%) stated no effect and two (15.38 %) mentioned the negative effect of obesity on their orgasms.

Women's Attitudes and Beliefs Towards Sex

In general, 11 women (84.61%) had a positive attitude towards sex and considered this relationship to be a mutual, pleasant, and relaxing relationship. However, 2 participants (15.38%) had a negative view of sex and considered women's shame to be effective in promoting sex. They considered sex as a defect and were ashamed of it.

In the present study, during the coding of the conducted interviews, a total of three general categories, six main categories, 11 subcategories, and 980 codes were obtained. After removing 388 duplicate codes, 592 new codes were obtained. In the present study, the physical and psychological dimensions affecting sex in obese women were reported.

Table 1. The Demographic Characteristics of Participants

Number	Age (y)	Occupation	Educational Level	Number of Children	Height (cm)	Weight (kg)	BMI (kg/m ²)
1	31	Housewife	Less than diploma	2	164	83	30.85
2	37	Hairdresser	Less than diploma	2	165	85	31.22
3	43	Faculty member	Master	1	157	78	31.5
4	44	Teacher	Master	1	160	75	30
5	39	Housewife	Diploma	2	160	96	37.5
6	39	Employee	Bachelor	0	156	89	36.80
7	46	Teacher	Bachelor	4	175	103	33.63
8	37	Housewife	Master	1	162	114	40.34
9	34	Housewife	Diploma	2	170	127	43.94
10	42	Housewife	Bachelor	1	167	97	35.01
11	45	Housewife	Associate	1	164	105	39.03
12	37	Housewife	Less than diploma	3	150	85	37.77
13	39	Hairdresser	Diploma	1	170	103	35.64

Physical Dimensions of Obesity Affecting Sexual Health *Individual-Physical Challenges*

Data analysis in this study showed that obesity as an individual-physical challenge can affect the sexual function of affected women in two subcategories of predisposing and limiting factors in daily life and sexual relations.

Predisposing Factor

Obesity in its physical aspect can be a disease predisposing factor, making women susceptible to various metabolic disorders, hormonal disorders, chronic physical and bone pains, and sleep and breathing disorders. Also, obese women have more stored fat in their thighs, which causes more contact between the thighs, and the contact and friction cause more heat and moisture. This makes the genital area susceptible to infection. It causes frequent genital infections and has negative effects, including increased vaginal secretions and frequent genital infections. On the other hand, in most women with obesity, the phenomenon of increased blood sugar may exist, which also makes these women exposed to changes in the normal bacteria of the vagina. Also, by increasing the sugar secreted in the urine, it is a suitable environment for the growth of bacteria and infection.

The effects of obesity on menstrual function, including irregular menstruation, delayed menstruation, heavy menstrual bleeding, polycystic ovary syndrome, etc., generally affect a woman's life physically and mentally. In general, obesity affects all aspects of women's lives by affecting the reproductive system of women in the form of infertility, the use of drugs and fertility-stimulating hormones, and frequent abortions. Also, obesity with physical changes in a person's appearance, such as hair loss, hirsutism, more sweating, swelling in the legs, etc., can make women susceptible to sexual apathy from physical and psychological dimensions.

During the further analysis of the interviews, the participants repeatedly complained about diseases, including frequent physical pains and swelling in the extremities. Bladder prolapse, urinary and vaginal infections, menorrhagia, dysmenorrhea, uterine fibroids, increased blood sugar and lipid, thyroid problems and more sweating in obese women pointed out that all these factors can, directly and indirectly, affect women's sexual health.

Limiting Factor

In Everyday Life

Women with obesity are faced with limited daily physical activity, less flexibility, low endurance, and lack of physical fitness, all of which affect their quality of life. Fatigue during daily activities, limited mobility, loss of body balance during daily activities, more desire to sleep, etc. were important factors that directly and indirectly affected the sexual health of obese women.

In Sexual Relations

The limitation of mobility caused by obesity can hurt women's active participation in sex. Among its reasons, physical pains during sex, such as pains in the knees, back, legs, etc., shortness of breath during sex, and the inability to have sex due to constant fatigue can be mentioned. They are commonly unable to tolerate different sexual positions in obese women due to the pressure on the knees.

In this regard, one of the participants said: *"After you get fat, you will enjoy your relationship less because of the restriction of your movement, your knees and back will hurt more and it will put a lot of pressure on your knees."* Another participant said: *"When you get fat, the fat surrounds the vagina and this makes penetration difficult"*.

Psychological Dimensions

Body Identity Structure

The image that a person creates of herself and the feeling she feels towards herself is a reflection of the attitude that others have towards her. The structure of main class of body identity structure included 5 subclasses of obesity stigma, visual and performance culture, emotions and feelings, individual attitudes and beliefs, and body image, which indicated the influence of the body identity structure of obese women and has an impact on their sexual health.

Obesity Stigma

Obesity stigma is one of the concepts related to the phenomenon of obesity and is defined as negative and prejudiced attitudes toward obese people. The negative attitude towards obese individuals is identified as a common issue in different societies. The negative image is stereotyped notions related to weight such as lazy, weak-willed, unsuccessful, and disorganized. They determine that these stereotypes lead to stigma and prejudice and discrimination against fat people in the domains of life and even interpersonal relationships. The participants of the present study also mentioned codes such as inactive and lazy. One of the participants in this context said: *"My mother always says, you are always at home, sit, and eat"*. Another participant said that obesity makes a person lazy.

Visual and Performing Culture

Due to the cultural-ethnic and racial differences in Iran, different codes were obtained in this field. In women with first-degree obesity, especially in those with a BMI between 30 and 32, women pointed out positive ethnic and racial tendencies specific to fat women. So that women liked their body and their weight gain, and most of the participants were only dissatisfied with their abdominal obesity. One of the participants said: *"Some cities in Iran prefer fat women..."*

Emotions and Feelings

Fat women's emotions and feelings towards their body

structure and identity are among the important factors that can affect their sexual health. Most of the participants have emotions and feelings, including not being happy because of obesity, being ashamed of a big belly, isolation from others, bad mood, depression, and stress and fear of humiliating the spouse, fear of betrayal and losing the spouse, shame, feeling heartbreak, feelings of blame and disappointment, hating your stomach, regretting your thin body, internalized negative feelings about obesity, stress from fitting new clothes, fear of knowing weight, fear of illness, and suffering.

One of the participants stated that: *“The thin women look like Barbie. I know that if both parties are not satisfied with their appearance, they are cheating on each other.”*

Another participant said that: *“I think having a beautiful body is much more important than having a beautiful face...”*

A Person's Attitude and Beliefs

It is important to note that attitudes and beliefs about their bodies can significantly impact the sexual health of overweight women. Those who view obesity as a weakness, consider abdominal obesity as a flaw, struggle to accept their weight, believe that their physical appearance is hindered by obesity, and perceive it as the biggest problem in their lives may experience negative effects on their sexual health due to these psychological factors.

One of the participants also mentioned that *“obesity has become normal in married life, and the reason for her good mood was that she got used to her obesity...”*

A person's attitudes and beliefs in the field of sexual relations in the form of positive attitudes and motivational sexual beliefs can show the motivational role of sexual feelings and perceptions in establishing a sexual relationship. On the other hand, negative attitudes and beliefs in the field of sex can prevent a person from having sexual issues. Many women in this study had a positive attitude toward sex, and some participants also had a negative view of sex. They considered women's shame and modesty to be effective in promoting sexual relations. They considered sex as a fault and were ashamed of it. They avoided sex because they considered it sacred. A person's attitude and beliefs in the field of sexual issues, apart from the fact that a woman is fat, can directly affect the sexual relationship.

Body Image

Distorted body image in obese women can directly affect their sexual relations. The participants in this research used codes such as not considering themselves beautiful, not wanting to see their bodies, criticizing their bodies, looking short due to big belly, decreasing self-confidence, and not liking themselves as the factors affecting their sexual relations. Most of the women also mentioned using a bra during sex because of their large and hanging breasts and the fattening of the reproductive system and

the excessive fat around the vagina. One participant said that: *“Fatness affects a person's self-confidence a lot and it is so important to have a good body...”*

Perceived Psycho-sexual Experiences

Perceived psychological experiences in obese women can affect their sexual health. Women suffering from obesity considered the psychological aspect of obesity preferable to its physical aspect and mentioned the bad mental state caused by obesity and the non-acceptance of obesity as important psychological factors. Lack of companionship in some sexual positions due to obesity was mentioned. The lack of comfortable and ideal ability to have sex in obesity, being embarrassed to initiate sex due to having a fat body, lack of self-confidence, the importance of mental peace in having sex, and the increasing effect of intimacy in sexual satisfaction independent of obesity were noted. One of the participants stated that *“an ideal person who is physically healthy, whether he wants to be fat or thin, will never be able to have a relationship without that feeling of loving his wife...”*

Discussion

Sexual issues are among the most important issues of married life, and compatibility in sexual relations and its balance are among the most important causes of happiness and success in married life (3). In the present study, it was found that obesity as a predisposing and limiting factor in life can affect the sexual health of obese people. Although most of the participants indicated that obesity did not affect their orgasm and peak sexual pleasure, women with obesity had different views on the effect of obesity on vaginal arousal and lubrication.

Additionally, the participants in this research highlighted the negative impact of obesity on sexual pleasure. They believed that obese women's attitudes and beliefs about their bodies can influence their sexual health. While most participants had a positive attitude towards sex and viewed it as a mutual relationship, some held negative views and attributed women's shame as a contributing factor. Obesity has become one of the most significant health problems identified by the World Health Organization in the past decade, with a growing trend over the last two decades (3). Given the limited research on sexual problems among obese women in Iran, this study was conducted. The findings of this study revealed that participants acknowledged the negative effect of obesity on sexual pleasure or its potential lack of impact on orgasm. They also considered body image and perceived attractiveness to be important factors in their sexual relationships. This study aligns with previous research indicating that obesity, as a risk factor for cardiovascular and metabolic diseases, can disrupt the vascular endothelium through immunological and endocrine system disruptions, subsequently leading to sexual dysfunction. Furthermore, obesity-induced insulin resistance can cause molecular changes in blood

vessels, resulting in inefficiency of clitoral vessels and an inability to achieve orgasm.

According to Rostami Dovom et al, obesity can also reduce the desirability of body image and lead to sexual dysfunction in women by increasing the risk of polycystic ovary syndrome and causing unpleasant changes in a person's appearance, such as acne and excess hair (12). Kahbazi et al also reported that obesity by causing mental illnesses such as depression, anxiety, low self-confidence, etc, can affect sexual performance by reducing attractiveness for the partner and reducing involvement in sexual interactions (13). Taskin Yilmaz et al examined the effect of mental image on the quality of sex life of obese women and found that by improving body image in women with normal weight, overweight, and obesity, the quality of their sex life also increases. They also concluded that obesity as a multifactorial disease causes a change in the mental image of people, and this causes sexual problems as well as emotional incompatibility with the spouse (14).

In this study, the majority of participants emphasized the importance of feeling loved as a prerequisite for sexual desire. They also highlighted the significance of the quality of couples' sexual relations and the need for mental peace in order to engage in sexual activity. Additionally, some women with first-degree obesity mentioned that obesity had a positive effect on men's sexual desire, although they also noted a decrease in their own desire as their obesity increased. Previous research has shown that as BMI increases, women experience more sexual disorders, resulting in a decline in the overall quality of their sexual lives. This is particularly evident among women with class 3 obesity, who reported the highest number of sexual problems (15). This finding can be attributed to the challenges faced by couples with higher BMI levels when it comes to engaging in sexual relations. Similarly, Bajos et al, who examined the relationship between obesity and sexual behaviors in 553 women, concluded that obese women were less sexually active compared to women with normal weight over the past year (16).

As mentioned in the present study, affection, honesty, attention, respect for the spouse, companionship, emotional support, feeling of security, personal recognition, and understanding, acceptance of each other, mutual attention, and attachment of the spouses in the dimension of intimacy between the spouses can have a positive effect beyond obesity. Ahmadian et al, who investigated sexual dissatisfaction and quality of life in obese patients over a period of three months, found that there is a significant relationship between sexual dissatisfaction and quality of life in obese people, considering the mediating role of marital intimacy. They concluded that marital intimacy can play an important role in modulating the decline in quality of life caused by sexual dissatisfaction in obese people. As was shown in the present study, emphasizing the positive aspects of the spouse instead of the negative

aspects, improving the individual's skills in terms of financial management, improving the parenting style, and creating positive self-confidence in obese women can reduce sexual disorders among them, and this indicates the impact of psychological factors and marital relationships on the quality of people's sexual life (1).

Although in the present study, most of the participants pointed out that obesity does not affect their orgasm and peak sexual pleasure, women with obesity had different views on the effect of obesity on vaginal arousal and lubrication. However, other studies mentioned that overweight women had more problems in the phase of desire, stimulation and lubricant, orgasm, and sexual satisfaction (6,17). In a study conducted by Steffen et al, it was found that nearly half of individuals with severe obesity experienced dissatisfaction with their sex life prior to undergoing bariatric surgery. Factors such as older age, severe depressive symptoms, and the use of antidepressants were identified as contributors to poor sexual performance in both men and women (18). However, other studies have shown no correlation between obesity and certain areas of sexual dysfunction (19,20). It is important to mention that Huang et al found no significant relationship between weight loss medical interventions, BMI, and sexual activity (21). On the other hand, Larsen et al observed an increase in sexual activity among women following weight loss, despite not finding a direct link between obesity and sexual performance (22).

Strengths of the Study

One of the strengths was the comprehensive and detailed examination of obese women in a quiet and isolated environment, following health protocols and social distancing measures, despite the spread of COVID-19.

Limitations of the Study

We conducted it using a small sample size and in a single center with participants from the same ethnicity. Therefore, conducting further multicenter studies with a larger sample size, involving diverse ethnic groups, and comparing the views of individuals from different cities across the country, could be highly valuable. These studies could provide additional insights and useful information to healthcare providers.

Conclusion

Sexual function is a crucial aspect of life (23,24), with sexual desire being one of the most significant factors impacting an individual's personal and social life. The satisfaction of these desires plays a decisive role in human personality development, making it inevitable to separate these desires from one's behavior. According to this study, obesity can affect sexual function in physical, mental, and social aspects. Furthermore, attitudes and beliefs regarding sexual issues can directly influence sexual relationships.

Authors' Contribution

Conceptualization: MA, ZK
 Methodology: MA, ZK, MAR, MN
 Validation: ZK, MAR, MN
 Formal analysis: MN
 Investigation: MA, ZK
 Resources: ZK
 Data curation: MA, ZK, MAR, MN
 Writing—original draft: MA, ZK
 Writing—review and editing: ZK, MAR, MN
 Visualization: ZK, MAR, MN
 Supervision: MA, ZK, MAR, MN

Conflict of Interests

There is no conflict of interest to be declared.

Ethical Issues

This study was approved by the ethics committee of the nursing and midwifery faculty of Shahid Beheshti University of Medical Sciences (Code: IR.SBMU.PHARMACY.REC.1400.027).

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