

THE QUALITY OF LIFE OF WOMEN OF REPRODUCTIVE AGE WHO ARE OVERWEIGHT AND OBESE

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Abstract: The quality of life (QOL) of 208 women of reproductive age was studied: the main group included 108 women with excess body weight and obesity. The comparison group included women with normal body weight. The SF-36 questionnaire (Short Form 36 Health Quality Survey) was used. The results indicate a difference in the quality of life of women with normal body weight and various degrees of obesity.

Key words: women of reproductive age, overweight, obesity, quality of life, SF-36.

Introduction. Modern society contributes to the development of unintentional obesity among citizens by promoting the consumption of high-calorie and fat-rich foods. In addition, thanks to the achievements in technology, people are shaping a less mobile lifestyle. These social and technological aspects have contributed to the increase in obesity in recent decades. Excessive body mass (BMI) and obesity are the most significant medical and social problems in terms of prevalence among the world's population and health damage. The significance of the obesity problem is determined by the threat of disability among patients and a decrease in overall life expectancy due to frequent development of severe comorbidities [1,3,4,7]. Many of these people suffer not only from diseases and limited mobility, but also from low self-esteem, depression, emotional distress, and other psychological problems caused by prejudice, discrimination, and isolation. The social significance of this problem lies in the fact that individuals suffering from severe obesity find it difficult to find employment. Obese people experience discriminatory restrictions on promotion, everyday life inconveniences, restrictions on movement, clothing selection, and adequate hygiene measures; sexual disorders are often observed [2.6].

All of the listed problems negatively impact the quality of life of people with obesity. Over the past 30 years, scientific and clinical studies have confirmed that quality of life is closely linked to human health and deteriorates with various chronic diseases. As a result of clinical and psychological studies, health-related quality of life (HRQL) [5, 6, 8] was identified. According to the definition of the World Health Organization (WHO, 1947), human health is determined not only by the absence of diseases, but also by physical, mental, and social well-being, which is currently combined with the concept of "quality of life" [9]. When developing this concept, an attempt was made to identify aspects of the patient's life that most closely depend on their health status, the presence of diseases, and their treatment. In the context of increasing prevalence of obesity and associated diseases, there is a growing interest in studying the quality of life of this category of patients.

The goal is to study the quality of life of overweight and obese women compared to the control group.

Material and methods: Based on the international standardized SF-36 questionnaire and questionnaire, a comparative sociological study was conducted among women of reproductive age (18 to 49 years). The study included 208 women. For comparative analysis, all respondents were divided into two groups - the control group (100 - with a normal BMI up to 25 kg/m²) and the main group (108 - with a BMI greater than 25 kg/m²). The diagnosis of "obesity" was determined according to the WHO body mass index formula (1997).

The study did not include patients with coronary heart disease, diabetes mellitus, non-alcoholic fatty liver disease, cancer, joint diseases.

According to the questionnaire data, the opinions of women regarding overweight (overweight) and obesity were assessed. The quality of life (QoL) indicators were assessed using the SF-36 questionnaire, using the results of eight scales and two summary indicators reflecting physical and mental well-being. The scores on each scale range from 0 to 100 points. A higher score indicates a higher level of quality of life. The following indicators of quality of life were quantified: general health (General Health, GH); physical functioning (Physical Functioning, PF); role functioning due to physical condition (Role-Physical Functioning, RP); pain intensity (Bodily Pain, BP); emotional state's influence on role functioning (Role-Emotional, RE); social functioning (Social Functioning, SF); vitality (Vitality); self-esteem of mental health or viability (Mental Health, MH). The physical component, which combines the first 4 indicators, and the mental component, which combines the remaining indicators, were also calculated and evaluated.

Results: According to the study, the number of women with normal body mass was 100 (48.1%), with BMI (25.0-29.9 kg/m²) - 32 (15.4%), with obesity of the first degree (30.0-34.9 kg/m²) - 35 (16.8%), with obesity of the second degree (35.0-39.9 kg/m²) - 29 (13.9%) and with obesity of the third degree (≥40.0 kg/m²) - 12 (5.8%). Overall, 76 (36.5%) women had different degrees of obesity.

The survey revealed that most women, despite their varying degrees of obesity, are characterized by neglect of their body weight. They often thought that being obese and overweight affected their appearance, giving it an unsuitable appearance. In this regard, it is advisable to study their views on the given conditions of the organism (Table. 1).

Table 1. Opinions of women with different body mass about BMI and obesity

Survey respondents' opinions on BMI and obesity	Frequency of opinions of women with different body mass							
	Normal n =100		BMI n=32		Obesity n=76		All n=208	
	abs.	%	abs.	%	abs.	%	abs.	%
The cause of overweight and obesity is:								
-inheritance	21	21%	6	18,8 %	21	27,6 %	48	23,1 %
-hormonal disorders	53	53%	15	46,9 %		57,9 %	112	53,8 %
-overeating	36	36%	10	31,3 %	33	43,4 %	79	38%
-small mobility	39	39%	11	34,4 %	37	48,7 %	87	41,8 %
Health impact:								
- does not affect	36	36%	10	31,3 %	21	27,6 %	70	33,7 %

-Relatively affects	22	22%	6	18,8 %	44	57,9 %	72	34,6 %
-Has cosmetic value	52	52%	15	46,9 %	33	43,4 %	103	49,5 %
BMI and obesity correction:								
- important	17	17%	9	28,1 %	29	38,2 %	56	26,9 %
- hard to do	24	24%	11	34,4 %	35	46% %	72	34,6 %
- no sense	59	59%	12	37,5 %	12	15,8 %	88	42,3 %
Food restrictions:								
- important	20	20%	8	25% %	28	36,8 %	58	27,9 %
- hard to do	53	53%	18	56,3 %	41	53,9 %	115	55,3 %
- no sense	27	27%	5	15,6 %	6	7,9 %	40	19,2 %
Increase physical activity:								
- important	21	21%	11	34,4 %	32	42,1 %	66	31,7 %
- hard to do	51	51%	17	53,1 %	40	52,6 %	112	53,8 %
- no sense	29	29%		15,6 %	5	6,6% %		19,7 %
Use treatment:								
- harmful to health	44	44%	12	37,5 %	34	44,7 %	93	44,7 %
- lack of information	32	32%	13	40,6 %	33	43,4 %	80	38,5 %
-materially unprofitable	25	25%		21,9 %	9	11,8 %	43	20,7 %

Note: in each group, the number of opinions is greater than the number of women, as each of them simultaneously noted 2 or more opinions

According to more than half of the women - 112 (53.8%) who participated in the study, hormonal disorders are the cause of overweight and obesity. 87 (41.8%) women believe that a sedentary lifestyle can contribute to obesity. Only 79 (38%) agree that overeating is the cause of overweight and obesity. Forty-eight (23.1%) women who participated in the survey attributed the development of obesity to heredity.

According to the survey, a significant portion of women attribute body mass index and obesity to purely cosmetic values - 103 (49.5%). At the same time, 70 (33.7%) representatives of the beautiful sex believe that these factors do not affect their health. Only 72 (34.6%) women consciously acknowledge the detrimental impact of body mass index and obesity on their physical well-being.

In this regard, there is an ambiguous attitude of women towards the correction of body mass index and the fight against obesity. Only 56 (26.70%) of them believe that these measures have meaning, while 72 (36.4%) believe that they are difficult to implement, and 88 (42.3%) see no meaning in them. Women's opinions on limiting food consumption, which is the main tool for weight loss, are particularly noteworthy. Despite this, only 58 (27.9%) women believe this weight loss measure is significant, while 115 (55.3%) are skeptical, believing it is difficult to achieve. The main reason for this opinion is the need to cook for the whole family, which makes it difficult to allocate time for creating individual dishes with low calorie consumption and leads to additional financial costs. At the same time, 40 (19.2%) women do not see any sense in limiting their diet.

Physical activity is an important element for weight loss, which 66 (31.7%) women acknowledged, however, 112 (53.8%) believe it is difficult to achieve. Many women perceive physical activity as engaging in sports, attending fitness clubs, morning runs, and other intense physical exercises. Taking into account their employment, household management, and childcare, these types of activity become a challenging task for them. At the same time, they are not aware that even a simple walk can provide the necessary physical load. However, 41 (19.7%) women believe that such workloads are meaningless.

Women's attitudes towards the use of weight loss medications are also ambiguous: 93 (44.7%) consider them harmful, 80 (38.5%) indicate a lack of information, and 43 (20.7%) note their inefficiency due to the long course of use.

It is noted that in all presented opinions, the results for obese women are more optimistic than for women with excess and normal BMI. This is due to the fact that some obese women have tried different weight loss methods at different stages of their lives. They increased their physical activity and adhered to a diet, but these attempts often did not yield the expected results.

The presented data highlights the importance of women's perception of body mass index (BMI) and obesity. The conclusions of many women about the cause of obesity are incorrect. Indeed, there are a number of diseases in which obesity can develop secondarily (as a result of hormonal disturbances) and they account for only 3-4% of all cases of obesity. In 95% of cases, the cause of overweight and obesity is excessive energy intake over the body's energy expenditure.

Many of the survey participants consider these questions purely cosmetic, not realizing that they can have serious medical consequences.

Since a person's health is determined not only by the absence of diseases, but also by their physical, mental, and social well-being, we studied the relationship between body mass index and key quality of life parameters (Table 2). In the surveyed group of respondents, a wide variability in the total quality of life indicators was observed with different values of the body mass index.

Table 2. Quality of life indicators in the study groups

Indicators	Normal n =100		BMI n=32		Obesity n=76	
	abs.	%	abs.	%	abs.	%
physical functioning (PF)	83	83%	24	75%	49	64,5%
role functioning due to physical condition (RF)	95	95%	28	87,5%	59	77,6%
pain intensity (BP)	90	90%	27	84,4%	54	67,1%
general health (GH)	81	81%	23	71,8%	51	57,9%
vital activity (VT)	78	78%	24	75%	50	65,8%
social functioning (SF)	82	82%	25	78,1%	56	73,7%

role functioning due to emotional state (EW)	85	85%	26	81,3%	44	71,1%
mental health (MH)	81	81%	25	78,1%	47	61,8%

The results obtained suggest a correlation or influence of obesity on quality of life indicators.

A significant difference in the scale of physical functioning was established in patients of groups I and III (83% and 64.5%). Obese women noted significant limitations in performing heavy workloads. Moderate workloads were performed without any restrictions in both groups. At the same time, the differences in responses when assessing difficulties in performing light workloads (lifting and carrying a bag of food) did not significantly differ, although a trend towards greater difficulties was also observed in the group with obesity. The same trend was observed when assessing the difficulty of climbing several stairs. Significant limitations were found equally rarely in both groups, but in the absence of obesity, the subjects practically did not observe any limitations, while the presence of obesity was associated with a moderate limitation in ascending one flight of stairs.

According to the role functioning scale due to physical condition (Role-Physical Functioning - RP) - the influence of physical condition on daily role activity (work, performance of daily duties) also received low indicators (95% and 77.6%), which indicates that daily activity is significantly limited by a person's physical condition. These women focused on the fact that being overweight to some extent hindered their professional realization, so it required additional effort to begin work.

The intensity of pain (Bodily pain - BP) and its impact on the ability to engage in daily activities, including home and non-home work, also showed low scores in the main group (90% and 67.1%, respectively). The pain was mainly observed in women over 40 years old and with 2-3 degrees of obesity. The pain was mainly observed in the musculoskeletal system and significantly limited the activity of the patients.

Patients' current health status and treatment prospects were assessed using the general health scale (General Health - GH). The lower the score on this scale, the lower the health status. The results of the study showed differences in the perception of health problems depending on age and the degree of obesity. The majority of respondents in the main group (57.9%) noted that being overweight has a strong impact on health.

Life activity (Vitality - VT) implies feeling full of strength and energy or, conversely, feeling weakened. This indicator also showed low scores compared to the control group (65.8% and 78%), indicating a decrease in patients' fatigue and decreased vital activity. Excessive weight, according to the majority of the main group, primarily affects physical well-being, respondents noted a decrease in strength.

Social functioning (Social Functioning - SF) was determined by the degree to which a physical or emotional state limited social activity (communication). Low scores indicated a significant limitation of social contacts, a decrease in communication levels due to a deterioration in physical and emotional state. According to this scale, the women in the main group experienced a feeling of uncertainty about their weight, they agreed that they did not like themselves because they were overweight. Due to their dissatisfaction with their appearance, they were often afraid to be in public places, and had difficulty communicating with people of the opposite sex. They avoided situations where any actions should be taken in front of others. Staying in public places was accompanied by somato-vegetative symptoms.

Role functioning, due to emotional state (RoleEmotional - RE), assumes an assessment of the degree to which emotional state interferes with the performance of work or other daily activities (including large time expenditures, reduced work volume, reduced quality, etc.). Low scores on this scale were interpreted as a limitation in daily work due to a deterioration in emotional state. Most women in the main group exhibited emotional instability due to excessive self-restrictions on food, dieting, and other types of weight loss. These women maintained a poor mood for a long time, exhibited rapid fatigue, increased irritability, a

feeling of internal tension and constant fatigue, aggression and hostility, and depression. They became indifferent to all that was happening.

Mental health (Mental Health - MH) characterized mood: the presence of depression, anxiety, and a general indicator of positive emotions. Low indicators indicated the presence of depressive, anxious experiences, and mental disorders. Women with BMI and obesity noted a loss of interest in usually pleasant activities, a feeling of depression in the morning, and a gloomy perception of the future.

Conclusions: the study found that in patients with BMI and obesity, the quality of life indicators reflecting physical and psychological components were significantly lower than in the comparison group. The decrease in the physical component in patients with BMI and obesity is due to lower quality of life indicators on the scales of general health and physical functioning compared to the control group. The psychological component of the quality of life was reduced in all parameters of this indicator, especially in terms of self-assessment of mental health and life activity, the results were lower than in the comparison group. These results indicate that the quality of life of patients with BMI and obesity is reduced both in terms of physical and mental well-being.

The obtained results indicate a difference in the quality of life of women with normal body weight and obesity. With a fairly high prevalence of BMI and obesity among women of reproductive age, many of them do not perceive these conditions as health risk factors. At the same time, the identified indicators of quality of life and self-esteem of one's health are quite unfavorable.

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