

## The Comparison of Quality of Life and Hope in Obese Women with and without Diet Therapy

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### Abstract

**Objective:** The treatment of obesity besides weight loss will have numerous psychological effects. The obese patients have different body image, poor hope and quality of life that influence the process of their treatment. The aim of this study was to compare body image, quality of life and hope in obese women with diet therapy and obese women who are not under diet therapy.

**Materials and Methods:** The analytical cross-sectional study was carried out on 180 obese women in Kerman during 2016, by convenient sampling. In this study 90 obese women were under obesity treatment regimen in Nutrition centers of Kerman and 90 obese women who were not under obesity treatment regimen. The World Health Organization Quality of Life questionnaire (1991) with a reliability of 86.0 and life expectancy Schneider (1991) with a reliability of 81.0 was used.

**Results:** The mean score of body image differences between two studied groups were statistically significant ( $P$ -value:0.001). The value of T differences between the quality of life of two studied groups was 2.25 ( $P$ -value:0.001) and was significant with 99% confidence interval.

**Conclusion:** The results showed that there was a significant difference between body image of obese women receiving diet therapy and obese women who did not receive diet therapy. In other words, obese women receiving diet therapy had more positive body image; although body image scores of both groups showed that they are not satisfied with their body image.

**Keywords:** Quality of life, Hope, Obesity, Diet therapy

## Introduction

Following the industrialization in the last century, the prevalence of obesity is growing worldwide and now it is considered as the most common health problem in the most countries. Approximately 1.2 billion people throughout the world are

overweight. It is predicted that by 2020, 3.1 billion people in the world are overweight and 573 million people will be obese (1). By increasing epidemic of overweight and obesity, 100 billion US\$ is annually spent on obesity-related disorders in America and 5 to

10% of the country's health budget is allocated to the direct costs associated with obesity. So, the importance and development of programs concerned with prevention and reduction of obesity increases steadily (2).

In Iran, in a nationwide survey on health in 2005, prevalence of overweight along with obesity was obtained 42.8% and 57% for men and women respectively. The previous studies carried out in Tehran showed that the prevalence of obesity and overweight among individuals older than 20 years is 23% and 40% respectively (3). Obesity and overweight is considered as one of the factors affecting health status and quality of life. Obesity is connected with many common (diabetes, hyperlipidemia, hypertension, cardiovascular diseases, respiratory problems, etc.) and psychological (low self-esteem, self-concept change, eating disorders, etc.) diseases (4). So, in order to cope with the large and growing problem of human societies, today that its dimensions are becoming broader day-to-day, reliable and suitable solutions should be found. It seems that lifestyle change along with diet and increased sporting activities is effective in reducing obesity (5). Obesity has a bilateral relationship with a person's emotional pressures, psychological distresses and psychiatric status. Psychiatric disorders, acute mental stresses and more chronic psychological and personality problems can all be causes of obesity and overweight. Many psychological problems as a primary and constant factor can cause the emergence of obesity. In addition, obesity itself leads to many unfavorable psychological consequences and dissatisfaction with life (6). For example, human being is a creature who likes beauty and desire to beauty has long existed in human nature (7). A desirable face makes a person's imagine better towards her. himselfand gives him. Her confidence. As a result, social activities take place in a more acceptable level (8). Body image is one of the psychological structures and is a central concept for health psychologist (9). Mental health professionals have conducted many studies in this regard

because of the importance of body image in social interaction and interpersonal relations. Another psychological issue affected by overweight is the quality of life. World Health Organization, as a first pioneer, has a particular attention to the development of evaluation of quality of life and defines quality of life as person's satisfaction with life and environment that encompasses the needs, wants, preferences, lifestyle and other tangible and intangible factors that affect individual's all aspect welfare (10). The hope which has also been defined as a psychological feature, process of thinking about goals, along with the motivation to move towards the goals (factor contemplation) and methods for achieving goals (pathway contemplation) (11) is an important factor in an attempt to lose weight. Based upon the Schneider's viewpoint, people with high hope find more ways to get goals and have more determination to achieve their goals. In contrast, people with low hope have weak determination to keep track of their goals and less impetus to find effective paths in order to achieve the goals (12). With regard to the impact of obesity on eating disorders, individual's adjustment and general health, its treatment is taken into consideration (13). The treatment of obesity besides weight loss will have numerous psychological effects. In the meantime, it is possible that obese people have different body image, little hope and poor quality of life that is effective on the process of their treatment. Therefore, the researcher intends to compare body image, quality of life and hope in obese women receiving diet therapy and obese women not receiving diet therapy and consider whether there is any difference between body image, quality of life and hope in obese women receiving diet therapy and obese women not receiving diet therapy.

## Materials and Methods

This was an analytical cross-sectional study. The studied population were obese women of Kerman (BMI>30). The studied sample was selected out of obese women referred to

Nutrition centers in Kerman (9 centers in the city and 3 hospital-based centers) who were under diet therapy for one month. These women (n = 90) were selected by convenient sampling method and 90 obese women (BMI>30) who were not under treatment.

The researcher, after ratification of proposal, tried to collect necessary information regarding variables and then starts to implement the research. In order to collect information, after determining the sample size and entering into the nutritional centers in Kerman, while explaining the purpose of study, obese women who were treated for at least a month, were asked to answer the intended questionnaires. Coincident with this stage, the researcher, using convenient sampling method in collaboration with the friends out of employed, unemployed women and female students, achieved a sample counterpart with the first sample who were not under regime treatment and they were also asked to answer research questionnaires. The process of completing the questionnaires was individual-based and after collecting entire completed questionnaire and removal of faulty questionnaires data were extracted for analysis. The World Health Organization Quality of Life questionnaire (1991) with a reliability of 0.86 and life expectancy Schneider (1991) with a reliability of 0.81 was used.

### Statistical analysis

The data analysis methods used in this study

were descriptive and inferential statistics. In the descriptive statistics, characteristics of the samples were describes using statistical characteristics such as frequency, percentage, mean, standard deviation and the hypotheses were investigated using independent T-test. All statistical analyses were carried out by statistical version of SPSS-21.

### Results

The obese women under diet therapy and women without diet therapy were between 15 to 65 years old. The participants' weight range was between 75 kg - 135 kg. According to Tables (1-2), the mean of body image among women receiving diet therapy was equal to 58.55 and among women not receiving diet therapy was 75.34. The mean of quality of life among women receiving diet therapy was equal to 112.78 and among women not receiving diet therapy was 105.56. The mean of hope in the women receiving diet therapy was equal to 53.89 and among women not receiving diet therapy was 35.66. Since the deformation and elongation values of variables were in the range of +2 to -2, and the amount of Kolmogorov-Smirnov test was more than 0.05, distribution of variables was normal, therefore, parametric tests were used to analyze the data. In order to evaluate significance of the difference in body image in obese women receiving diet therapy and women not receiving diet therapy, independent T-test was used. Using independent T-test

**Table 1. The summary of descriptive indicators of scores of women receiving diet therapy**

Studied variables	Mean	Standard deviation	Minimum	Maximum	Deformation	Elongation	Kolmogorov-Smirnov test
Body image	58.55	4.15	25	80	0.76	0.63	0.053
Quality of life	112.78	3.13	51	132	0.89	0.79	0.052
Hope	53.89	3.76	22	56	1.02	0.63	0.052

**Table 2. The summary of descriptive indicators of scores of women not receiving diet therapy**

Studied variables	Mean	Standard deviation	Minimum	Maximum	Deformation	Elongation	Kolmogorov-Smirnov test
Body image	75.34	3.88	21	91	0.65	0.95	0.052
Quality of life	105.56	4.75	48	130	0.76	1.04	0.053
Hope	35.66	4.16	18	45	0.97	0.99	0.051

showed that there was a significant difference between the two groups in terms of quality of life (Table 3). Following investigation of the significance of difference in mean of hope of obese women receiving diet therapy and obese women not receiving diet therapy showed, there was a significant difference between the two groups in terms of hope (Table 4).

## Discussion

The results showed that there was a significant difference between body image of obese women receiving diet therapy and obese women who did not receive diet therapy. In other words, obese women receiving diet therapy had more positive body image; although body image scores of both groups showed that they are not satisfied with their body image. This finding is consistent with the result of the research by Kashani Assar et al. They showed in their research that obese women have a negative body image of themselves compared to overweight and normal women (14). Khanjani et al (15) and Pasha et al (16), in their studies showed that applicants of cosmetic surgery had a negative body image of themselves compared to those who were not applicant of cosmetic surgery. The research findings are also consistent with the results of research conducted by Sousa and Miguel (13), Haledon et al (17) and Frederick et al (18). They showed in their studies that overweight people who are applicants of cosmetic surgery have a negative body image of themselves. We know that people, who go

under diet therapy, if go ahead by their schedule, gradually achieve to their ideal weight and favorable appearance. Those who once upon were running away from mirror and seeing their appearance now are satisfied through approval by others. So, people who receive diet therapy are feeling more satisfied with their appearance compared to people who are obese but were not treated. The research results also showed that there is a significant difference between the quality of life of obese women receiving diet therapy and those who do not receive diet therapy. In other words, obese women receiving diet therapy had higher quality of life. They obtained higher scores especially in psychological aspects and physical health. This finding is consistent with results of the research conducted by Asgari and Shabaki (19), Kolodziejczyk and colleagues (20) Han and colleagues (21), Kolotkin and colleagues (22), Hopman and colleagues (23). There was a significant relationship between obesity and quality of life. They confirmed that obesity is associated with low quality of life. It is also consistent with result of the research by Rodriguez et al (24). He showed in his research that obesity is associated with depression and since depression is one of the low quality of life aspects, thus it confirms the impact of obesity on quality of life. In this study, people who were not under diet therapy, their quality of life were lower than the people who were under diet therapy. We know that quality of life includes two aspects of mental and

**Table 3. Independent T test results of mean difference of quality of life in obese women receiving diet therapy and obese women not receiving diet therapy**

Variable	Group	N	Levine test for equality of variances		Independent T-test for equality of means		
			F	P-value	t	df	P-value
Quality of life	With diet therapy	90	0.256	0.607	2.52	178	0.000
	Without diet therapy	90					

**Table 4. the independent T-test results of hope difference in obese women receiving diet therapy and obese women not receiving diet therapy**

Variable	Group	N	Levine test for equality of variances		Independent T-test for equality of means		
			F	P-value	t	df	P-value
Hope	Diet therapy	90	4.31	0.309	3.1	178	0.000
	Without diet therapy	90					

physical health. People who undergo diet therapy, not only are satisfied with themselves by achieving their desired weight and their self-concept and self-esteem grows, they physically fall in a suitable condition. It is here that by improving these two aspects, quality of life will be at a higher level than before. Another finding of this study is the high hope of people receiving diet therapy compared to those who did not receive diet therapy. The result of this research is consistent with findings of Cash and Labarge (25) who demonstrated that people applying for cosmetic surgery have more hope after surgery. Additionally, Valle and colleagues (26) have shown that hopeful people have more self-esteem and mental health. Given that in several studies, low levels of mental health and quality of life of obese people has been approved, it can be inferred that obese people have lower levels of hope. Especially when they are not under treatment, As the

obese people, before treatment of overweight, have no hope of recovery, by taking the first step and with decrease of minimum weight, the obese person gains more incentive to lose more weight and receive positive feedback from others. The apparent changes every day make person more hopeful than the previous day for treatment. But an individual who does not take any action for treatment has no hope for treatment from the beginning, so taking the first step will be very hard for him.

## Conclusions

The obese women who receive diet therapy are more hopeful and with higher quality of life score and have a better body image from themselves compared to those women who are not under therapeutic regimen. In this regard, they have the higher physical and psychological health.

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