

Comparison Between Marital Satisfaction and Self-Esteem Before and After Bariatric Surgery in Patients With Obesity

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Abstract

Background: Obesity is one of the most common chronic diseases with important medical effects, as well as mental and social health problems. Bariatric surgery is one of the most effective treatments of morbid obesity.

Objectives: Because of the possible psychological changes, and its effects on weight loss after surgery, the current study aimed to compare marital satisfaction and self-confidence in patients with obesity before and after bariatric surgery in Rasoul-e-Akram hospital in 2013.

Materials and Methods: This prospective observational study was conducted on 69 candidates for bariatric surgery. Marital satisfaction and self-confidence were assessed before and six months after the surgery by Enrich marital satisfaction scale and Coopersmith self-esteem inventory. Descriptive statistics and T-tests were utilized to analyze data. Values of $P \leq 0.01$ were considered statistically significant.

Results: Despite the improvement of sexual relationship, marital satisfaction scores significantly decreased from 141.26 ± 12.75 to 139.42 ± 12.52 six months after the surgery ($P = 0.002$). Satisfaction in scales of conflict resolution and communication showed a descending pattern ($P < 0.001$). No significant difference was found between self-esteem before and after the surgery ($P = 0.321$).

Conclusions: Weight loss after bariatric surgery did not improve self-esteem and marital satisfaction six months post operatively; therefore, psychiatric assessment of patients before and after the surgery is crucial; since even if they are not associated with prognosis of the surgery, it is important to provide treatment for psychiatric problems. Prospective studies are recommended to assess post-operative changes of other psychological aspects.

Keywords: Bariatric Surgery, Marital Satisfaction, Obesity, Self-Esteem

1. Background

Today, obesity is one of the most common chronic diseases that affect the majority of people. It is estimated that about one-third of adults in the developed countries have obesity or overweight (1) and it is predicted that by the year 2040, more than 50% of people have overweight or obesity (2). Due to the lifestyle changes and eating patterns, the prevalence of obesity has also increased in Iran in the recent decades. Studies indicated that the prevalence of overweight and obesity among Iranian adults is 22% and 40%, respectively (3). Various factors including genetics, age, gender, diet, lack of exercise, eating disorders, psychiatric disorders and socioeconomic status can affect the weight and lead to obesity (4).

Besides important medical effects of obesity, including cardiovascular diseases, diabetes, hypertension, cancers,

lung diseases, liver diseases, skeletal and joint diseases, mental and social health problems are also common in patients with obesity. Several studies show that obesity may be associated with mental disorders, and this relationship can be reciprocal (5-13).

Based on the side effects of obesity, researchers are continually seeking solutions to prevent and treat obesity (14). Non-surgical procedures such as diet therapy, medication, exercise, cognitive and behavior therapy and bariatric surgery are the current interventions to treat obesity (14-22).

Despite the growing research on the impact of bariatric surgery on medical conditions such as sleep apnea, diabetes and hypertension, the study on the impact of surgical interventions on mental health, social and psychological well-being of patients with obesity is limited. Some studies show an overall improvement in

depressive symptoms, self-esteem, body image and health-related quality of life after the surgery. Findings were heterogeneous, i.e. in some studies a group of patients experienced post-operational (post-op) mental health benefits, while others reported some emotional problems after the surgery (23-31). A comprehensive research on 4047 Swedish obese subjects (SOS) demonstrated a significant reduction of depression and anxiety scores in the patients, one year after the surgery compared with those of the control group (32).

In contrast to the study by Carlson, a qualitative study showed an increase of psychological conflicts three, six and twelve months after the surgery. It was concluded that identity change, anger towards others and fear of losing food as a friend were the findings not reflected in the questionnaires in quantitative studies. Almost all the patients reported the increased post-op need of psycho-social support. The result of this study indicated that besides the psychological improvement, patients could have some psychological conflicts after bariatric surgery which should be considered (33).

2. Objectives

In regard to the importance of mental health and its possible changes and effects on weight loss after surgery (34), the current study aimed to assess marital satisfaction and self-confidence before and six months after undergoing bariatric surgery in patients with obesity.

3. Materials and Methods

It was a prospective observational study. All of the patients were admitted to the outpatient obesity clinic of Rasoul-e-Akram teaching hospital affiliated to Iran University of Medical Sciences from March 2012 to November 2013.

Patients were evaluated by two psychiatrist faculty members of Iran University of Medical Sciences with special interest in this area. The sampling method was convenient and all eligible patients, candidates for gastric bypass surgery, were selected to obtain a sample size of 69. The study was approved by the ethical committee of Iran University of Medical sciences, Tehran, Iran; it conforms to the provisions of the declaration of Helsinki (as revised in Edinburgh 2000) under the code 54163. Written informed consent was obtained from all subjects.

Excluding criteria were being unmarried, lack of interest to participate in the study, comorbidity of axis I psychiatric comorbidity and inability to complete the questionnaire because of cognitive problems or insufficient education.

In the current study, the following tools were used to collect data:

A) Enrich marital satisfaction questionnaire: Enrich scale is used to assess marital satisfaction of the subjects. The reliability and validity of original and Persian versions are reported in previous studies (35).

B) The Coopersmith self-esteem inventory: A measure of self-study, self-concept questionnaire. Previous studies demonstrated validity and reliability of the Persian version of the questionnaire (36).

C) The Persian structured clinical interview for DSM-IV axis I disorders (SCID-I): It is a diagnostic instrument which should be administered by a clinician. The Persian version had acceptable reliability, validity and feasibility on a large sample of Iranian patients; it was used to exclude the patients with major psychiatric comorbidities (37).

Descriptive statistics were utilized to determine the pre-surgical and post-surgical statuses of marital satisfaction and self-esteem. The changes of mentioned variables after surgery were assessed using T-tests. P values ≤ 0.01 were considered statistically significant.

4. Results

Sixty-nine patients with obesity were enrolled into the study; 63 patients (91.30%) were female. The mean age was 39.42 ± 8.87 years; 59 (85.5%) patients had high school diploma and others had higher educations.

The pre- and post-surgical body mass index (BMI) were 48.88 ± 4.7 and 29.3 ± 7.7 , respectively ($P = 0.0001$). The pre- and post-surgical top scores of marital satisfaction were obtained on communication and sexual relationship scales, respectively. Compared with pre-surgical results, the scale of sexual relationship improved significantly ($P = 0.0001$) and satisfaction in scales of conflict resolution and communication showed a descending pattern post-surgically ($P = 0.0001$). Despite the improvement of sexual relationship, marital satisfaction scores significantly decreased six months after the surgery ($P = 0.002$).

The pre- and post-surgical scores of the other eight scales did not show a statistically significant difference (Table 1).

Also there was no significant difference between the pre- and post-operative scores of the Coopersmith self-esteem inventory (Table 2).

5. Discussion

The current study did not show a positive change in marital satisfaction six months after bariatric surgery.

Table 1. Marital Satisfaction of Patients Before and After the Surgery

Variables	Before the Surgery, n = 69	Six month After the Surgery, n = 69	T Value	df	P Value
Spiritual beliefs	13.52 ± 3.79	13.26 ± 3.63	1.175	68	0.244
Family and friends	14.52 ± 3.49	14.23 ± 3.02	1.297	68	0.199
Sexual relationship	15.37 ± 3.19	18.65 ± 3.35	8.221	68	< 0.001
Children and parenting	14.00 ± 2.42	13.68 ± 2.54	1.518	68	0.134
Conflict resolution	16.51 ± 3.16	14.78 ± 2.31	6.390	68	< 0.001
Financial management	15.24 ± 2.74	15.24 ± 2.70	0.106	68	0.916
Leisure activities	15.44 ± 3.00	15.34 ± 2.63	0.47	68	0.64
Personality issues	16.54 ± 3.67	16.37 ± 3.07	0.414	68	0.680
Communication	16.86 ± 3.70	16.43 ± 4.91	3.989	68	< 0.001
Idealistic distortion	13.90 ± 2.41	13.72 ± 2.33	1.418	68	0.143
Role relationship	13.41 ± 3.75	13.24 ± 3.47	1.183	68	0.293
Marital satisfaction	141.26 ± 12.75	139.42 ± 12.52	3.149	68	0.002

Table 2. The Mean Difference Between the Pre- and Post-Operative Self-Esteem

Variable	Time	Mean ± SD	df	T Value	P Value
Self-Esteem	Before surgery	43.65 ± 4.92	68	-1.0	0.321
	After Surgery	43.53 ± 4.88			

Perhaps one of the reasons was the shortness of the follow-up interval. It is supposed that associations between weight and bio psychosocial status affecting quality of life could become more significant after long term follow-up; since before the surgery patients had a common problem of morbid obesity, the heterogeneity of sample was low. During the first months after bariatric surgery, patients had common problems of fast weight loss, losing food as a friend and adjustment with new life, but after that the heterogeneity increased; therefore, the analysis of correlations was well founded. Some studies concluded that the duration of follow-up after bariatric surgery can affect the impact of bariatric surgery on psychological improvement (24). The result of some studies, such as that of Cooper and Wells on patients with obesity before and after gastric bypass surgery showed that after even three months nearly 69% of the patients had an increase in their marital satisfaction (38).

Results of a study by Bond et al. on 102 females who were candidates for bariatric surgery showed that 61% of them had problems in sexual desire, sexual arousal and orgasm (39).

Consistent with this study, another study on 54 females before and six months after bariatric surgery demonstrated a considerable improvement in sexual functioning

of the subjects. From 63% of patients who complained of sexual problems before surgery and 68% reported improvement of sexual functioning six months after bariatric surgery. This improvement was not associated with the quantity of weight loss and the type of surgery (39). Dano and Hahn-Pedersen also reported that patients experienced a lower rate of sexual problems post-operatively (27).

In the current study, despite the improvement of sexual relationship, marital satisfaction scores, especially the score of conflict resolution, decreased after surgery. In contrast to this, in a study on 54 females one year after bariatric surgery, 52% of the patients reported improvement of marital satisfaction. They also reported post-op improvement of social life, sexual function and self-esteem (40). Rand et al. considered an increased rate of divorce after the surgery and reported that happy marriages had the same or even better situations before the surgery compared with that of after the surgery; in another words, the surgery had a negative effect on pre-surgically conflictual relationships (40).

A study on 69 married females before and 12 months after bariatric surgery by Hafner revealed decrease in the post-op affection feeling/behavior scale of the marital attitudes questionnaire. After the surgery, the females evaluated themselves more social and attractive and their husbands described their wives' social contacts excessive (41).

Hafner et al. also found marital problems were centered on issues of control and power. On the other hand, the role of changes and power struggle between the couples after the weight loss could deteriorate the marriage and lead to marital discord (41).

Concurring with this study, Crisp et al. reported that although 46% of the married patients reported a post-operative enhancement in sexual desire; only 2 of 10 patients stated the improvement of their marriage (26). These results could be explained by decrease of submissiveness of patients with obesity after losing weight and increase of self-confidence and autonomy. These results could show the importance of further psycho-social support for the couple after bariatric surgery. As a result, assessment of marital satisfaction and offer of psychological intervention, if needed, is strongly suggested pre- and post-surgically.

The post-surgical changes in patients' self-esteem is noteworthy, since poor self-esteem can deteriorate their prognosis and increase the risk of post-op weight regain according to the study by Georgiadis (42). In the current study, there was no significant difference between the pre- and post-operative scores of self-esteem. The relationship between self-esteem in patients with obesity before and after the surgery is fairly complicated. Meanwhile, some studies showed the relationship between obesity and poor self-esteem, and concluded that the weight loss could lead to increased self-esteem; some studies showed that obesity after childhood was not correlated with lower self-esteem scores (43).

In contrast to the current study, some studies showed a significant increase in the subjects' self-esteem after the surgery (26).

The results of the current study indicated no significant increase in self-esteem scores, six months after the surgery. Maybe, since the candidates for bariatric surgery had more mental health issues and poorer self-esteem in comparison with other patients with obesity, improvement of their mental health cannot be achieved in short time or only after losing weight and psychological interventions are needed (44-48). Besides, sagging and loose skin after a considerable weight loss is observed in majority of the patients and this could affect their post-op body image satisfaction and their self-esteem (49, 50).

The small number of sample size and the short-term follow-up were limitations of the current study. Prospective studies with long-term follow-up, which consider other psychosocial variables influencing the marital satisfaction such as quality of life, socioeconomic characteristics and marital satisfaction of patients, are recommended.

Footnotes

Authors' Contribution: Atefeh Ghanbari Jolfaei Studied designed and performed the statistical analysis and prepared the manuscript. Abdolreza Pazouki studied, designed and collected clinical data and revised the manuscript. Tahereh Lotfi collected clinical data, revised the manuscript and performed statistical analysis. Azadeh Mazaheri Meybodi prepared the manuscript collected clinical data. Fahimeh Soheilipour and Fatemeh Jesmi re-analyzed the clinical and statistical data and revised the manuscript. All authors read and approved the final manuscript.

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