

Quality of Life among Patients with Sleeve Gastrectomy

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Abstract:

Background: Sleeve gastrectomy is currently the only effective treatment for morbid obesity that results in substantial and sustainable weight loss, remission of obesity-related comorbidities, and improvement of quality of life. **Aim:** Assess the quality of life among patient with sleeve gastrectomy. **Research design:** A descriptive research design was used in carrying out this study. **Setting:** This study was conducted at Surgical Outpatient Clinic, in Benha University Hospital and Benha Teaching Hospital. **Sample:** A purposive sample of 150 patients with sleeve gastrectomy. **Tool of data collection:** Two tools were used for data collection as following: **Tool (I):** A structured interviewing questionnaire which of four parts: Socio-demographic data of the studied patient, medical history of patient's regarding sleeve gastrectomy, patients' knowledge regarding sleeve, and reported practices of patient's regarding sleeve gastrectomy. **Tool (II):** Quality of life among patients with sleeve gastrectomy. **Results:** 44% of the studied patients aged from 18 to less than 30 years old with mean was 42.61 ± 9.35 years, 72.7% of them were female. 11.3% of them had poor total knowledge level regarding sleeve gastrectomy. 83.0% of the studied patients had satisfactory reported practices level regarding sleeve gastrectomy. 70.7% of studied patients had good total quality of life level. **Conclusion:** There was statistically positive correlation between studied patients total knowledge scores, total practices scores and their total quality of life scores regarding sleeve gastrectomy. **Recommendation:** Investigation of other factors that affect quality of sleeve gastrectomy patients.

Keywords: Patients, Quality of life and Sleeve gastrectomy.

Introduction:

Obesity represents a serious medical and public health challenge and carries a global economic burden estimated to be of 1.72 trillion. Over the past decade, the prevalence of obesity has not stopped increasing worldwide, contributing to the development of numerous diseases such as diabetes, sleep apnea, cardiovascular disease, and joint diseases. The obesity is still increasing worldwide. Sleeve gastrectomy is currently the only effective treatment for morbid obesity and improvement of Quality of Life

(QoL) in the long term. Sleeve gastrectomy has been the most frequently performed bariatric and is still showing a steady annual increase both in number and proportion of all sleeve gastrectomy procedures (Grönroos, et al., 2021). The sleeve gastrectomy procedures performed worldwide increases every year and has recently exceeded to 685,000. Over 50% of these are laparoscopic sleeve gastrectomy (Felsenreich, et al., 2020).

Sleeve gastrectomy is a surgical weight loss procedure that involves the removal of a

large portion of the stomach. During the procedure, the surgeon removes approximately 75-85% of the stomach, reducing its size and capacity. This restrictive procedure helps to limit the amount of food that can be consumed, resulting in a feeling of fullness with smaller portions. Sleeve gastrectomy is considered a valuable option for individuals with severe obesity who have been unsuccessful in achieving sustainable weight loss through non-surgical methods **(Han et al., 2020)**.

The goal of sleeve gastrectomy is not only to decrease weight but also to improve overall health and reduce obesity-related comorbidities. By reducing the size of the stomach, the procedure can help control appetite and promote healthier eating habits. It can lead to improvements in conditions such as type 2 diabetes, high blood pressure, high cholesterol, obstructive sleep apnea, and joint pain. Additionally, sleeve gastrectomy can enhance quality of life by increasing mobility, boosting self-esteem, and reducing the psychological burden associated with obesity. It is important to view sleeve gastrectomy as a holistic approach that focuses on long-term health and well-being rather than just a means of weight reduction **(Felsenreich, et al., 2020)**.

Some of the common complications related to sleeve gastrectomy include bleeding, infection, leakage from the staple line, blood clots, and adverse reactions to anesthesia. There is also a risk of developing gastrointestinal issues such as acid reflux, strictures (narrowing of the stomach opening), or ulcers. In rare cases, more serious complications such as a leak or a fistula (abnormal connection) between the stomach and other organs may occur. Additionally, patients may experience nutritional deficiencies, particularly if they do not adhere to recommended dietary guidelines

or fail to take prescribed vitamin and mineral supplements **(Sharpton, et al., 2021)**.

Quality of life refers to the overall well-being and satisfaction an individual experiences in various aspects of the life, including physical health, mental and emotional state, social relationships, and general living conditions. It encompasses factors such as access to healthcare, education, employment opportunities, safety, and the ability to engage in meaningful activities and pursue personal goals. A high quality of life is often associated with a sense of fulfillment, happiness, and a positive outlook on life, while a low quality of life may be characterized by various challenges and limitations that affect an individual's daily functioning and overall happiness **(Fiorillo et al., 2020)**.

Community Health Nurses (CHN) play a crucial role in supporting individuals who undergo sleeve gastrectomy. CHNs provide education and counseling to patients before and after the surgery, helping them understand the procedure, potential risks, and necessary lifestyle changes. CHNs assist in developing personalized care plans, including dietary guidelines, physical activity recommendations, and post-operative care instructions. Community Health Nurses also monitor patients' progress, provide emotional support, and address any concerns or complications that may arise. CHNs working closely with patients, families, and healthcare providers, Community Health Nurses contribute to the overall success and well-being of individuals undergoing sleeve gastrectomy, promoting a healthier lifestyle and improved quality of life **(Graham, 2019)**.

Significance of the study:

According to "100 million health" survey, which was conducted in Egypt in 2019 and screened 49.7 million adult Egyptians, and

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found that; 39.8% of adult Egyptians suffered from obesity (Body Mass Index 30 kg/m²). Obesity was more prevalent in adult females than adult males (49.5% of Egyptian adult females suffered obesity compared to 29.5% for males) (Aboulghate et al., 2021).

A prospective observational cohort study performed During the period between September 2018 and June 2019, patients \geq 18 years of age were recruited from the Gastrointestinal Surgery Center, Mansoura University, Egypt (Bassiony, 2020).

The significance of studying the quality of life among patients with sleeve gastrectomy in countries with a high prevalence of obesity like Egypt lies in understanding the impact of this surgical procedure on the well-being and overall health outcomes of individuals. By examining the post-operative quality of life, including physical, mental, and social aspects, researchers and healthcare professionals can gain insights to improve patient care, inform decision-making processes, and develop tailored interventions to enhance the long-term success and satisfaction of patients undergoing sleeve gastrectomy.

Aim of the study:

This study aimed to assess the quality of life among patient with sleeve gastrectomy.

Research questions:

1. What are the patient's knowledge levels regarding to sleeve gastrectomy?
2. What are the patient's reported practices regarding to sleeve gastrectomy?
3. What is the quality of life among patients with sleeve gastrectomy?
4. Is there a correlation between patient's knowledge, practices and their quality of life related sleeve gastrectomy?

Subject and Methods:

Research design:

A descriptive research design was used in carrying out this study.

Setting:-

This study was conducted at Surgical Outpatient Clinic, in Benha University Hospital and Benha Teaching Hospital. These located in grand floor, contains from one room to give care for patients. The researcher chose this setting because of the large number of patients attended this Hospital to be cared and follow up after sleeve gastrectomy.

Sampling:-

A purposive sample was used in selecting sleeve gastrectomy patients from Surgical Outpatient Clinic in Benha University Hospital and Benha Teaching Hospital during follow up through 6 months to follow up the diet and treatment regimen. The patients discharge from the hospital at 24 hours after the operation. The total number of the sample size was 150 patients who had sleeve gastrectomy surgery. Patients inclusion criteria selected according the following:

- Patients more than 18 years old
- Patients accepted to participate in the study.

Tools of data collection:

Two tools were used in this study:

Tool 1: A structured interviewing questionnaire: it was developed by the researcher after reviewing literature and revised by supervisors, and it was written in clear simple Arabic language and it was consisted of four parts:

First part: Socio- demographic characteristics of patients it include 8 items about age, sex, place of residence, marital status, level of education, family type, occupation and income.

Second part: Medical history of patients regarding sleeve gastrectomy which include 10 items about previous performance of sleeve gastrectomy, frequency of performing sleeve gastrectomy, duration of performance the previous sleeve gastrectomy, duration of current of sleeve gastrectomy, duration of hospitalization after current sleeve

gastrectomy, taking medications beside the operation, kind of medication, and follow up after sleeve gastrectomy.

Third part: Patients' knowledge regarding sleeve gastrectomy which include 8 items.

Scoring system:

The scoring system of studied patients' knowledge was calculated as follows: (2) score for a correct and complete answer, (1) score for a correct and incomplete answer, and (0) for don't know. For each area of knowledge, the score of items was summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score.

The total score of knowledge were classified as the following:

- Good: When the total score was >75% (> 10 points).
- Average: When the total score was 50 -75 equal (7-10 points).
- Poor: When the total score was <50 (< 7 points).

Fourth part: Reported practices of patients regarding sleeve gastrectomy included 4 sections about (nutrition, physical activity, medication adherence and follow up and checkup of weight).

Scoring system:

Each step of studied patient's reported practices has two level of answers: done or not done. These were respectively 1.0. The scores of the items were summed up and the total divided by the number of the items, giving a mean score for the part. These were converted into a percent score.

-The total practices scores were done satisfactory if the score of the total practices >60% (>17points), while considered unsatisfactory if it is (<60%) (≤17 points).

Tool (II): Quality of life among patients with sleeve gastrectomy which adapted from (**Fezzi et al., 2019**). It was included five domains physical, psychological, social, the spiritual

and environmental domain of patient with sleeve gastrectomy.

Scoring system of quality of life:

The scoring system of quality of life for patients with sleeve gastrectomy scale score was calculated as (2) scores for always, (1) scores for some times and (0) scores for never. For each area of quality of life the score of items was summed -up and the total divided by the number of items giving the mean score for the part. These score were converted into percent score

The total quality of life score =74 points

- Good if the total scoring >75% (>55) points
- Moderate if total scoring equals 50- 75% (37-54) points
- Poor if it equals less than 50% (<37) points.

Content validity:

The tools were reviewed for comprehensiveness, appropriateness and legibility by three experts of Staff from the Community Health Nursing Department, Faculty of Nursing, Benha University. The experts ascertained the face and content validity of the tools.

Reliability of the tool:

Reliability of tools was applied by the researchers for testing the internal consistency of the tool, by administration of the tools to the same subjects under similar condition on one or more occasion answers from repeated testing were compared using (Cronbach's coefficient alpha test reliability) equal .752 for knowledge, and .722 for practices and .716 for quality of life.

Ethical considerations:

Approval from Ethical Committee of Faculty of Nursing Benha University was obtained. Permission has been obtained formally from each patient conducted the interview and given them a brief orientation to the study ; subjects were given an opportunity to refuse the participation after explanation of the purpose of the study. Patients will have right to

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withdraw from study without any rational. Although they were reassured that all information gathered will be confidential and used only for the purpose of the study.

Fieldwork:

The actual field work was carried out at 6 months from the beginning of October 2022 to the end of March 2023. The researchers visited Surgical Outpatient Clinics of Benha University Hospital from 9 am to 12 mid-day, two days per week (Saturday and Wednesday) to collect data from patients because the Outpatient Clinics specializes these days for follow up of patients with sleeve gastrectomy. The researchers met from two to three patients per visit for data collection. The researcher visited Surgical Outpatient Clinics of Benha Teaching Hospital from 9 am to 12 mid-day, one day per week (Monday) to collect data from patients because the Outpatient Clinics specializes these day for follow up of patients with sleeve gastrectomy. The researchers met from one to two patients per visit for data collection. Researchers visited the study setting, introduced herself to participants and explained the aim of the study briefly to patient who have sleeve gastrectomy. Each sheet took about (30-40 minutes) to answer from the patient.

Statistical analysis:

Data were verified prior to computerized entry. The Statistical package for Social Sciences (SPSS version 20) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of chi square was applied to test the study results.

P value is used to determine significant of results as follow.

- P value > 0.05 is non-statistically significant difference .
- P value <0.05 is statistically significant difference.

- P value <0.001 is highly statistically significant difference.

Results:

Table (1): Shows that; 44% of the studied patients aged from 18 to less than 30 years old with mean was 42.61 ± 9.35 years, 72.7 % of them were female and 56.7% of them were living in urban area. 70.7% of the studied patients were married, 66% of them had University education and more, 36.7% of them had nuclear family. Regarding occupation, 49.3% of them were employee. 51.3% of studied patients had enough and saved income.

Table (2): Reveals that; 15.3% of the patients preformed previous sleeve gastrectomy surgery for once time 60.9% of them had sleeve gastrectomy surgery since one year. 42% of studied patients had current a sleeve gastrectomy from 2 weeks to a month ago. Regarding duration of hospitalization after current sleeve gastrectomy, 94.7% of them stayed one day after hospitalization, 100% of them took medications beside the operation, while 83% of them took vitamins and menirals, and 57.3% of patients followed up after weak after sleeve gastrectomy surgery.

Figure (1): Illustrates that; 56.7% of patients had good total knowledge level, while 32% of them had average total knowledge level, and 11.3% of them had poor total knowledge level about sleeve gastrectomy.

Figure (2): Shows that; 83% of the studied patients had satisfactory reported practices level regarding sleeve gastrectomy, and only 17% of them had unsatisfactory reported practices regarding sleeve gastrectomy.

Figure (3): Show that 70.7% of studied patients had good total quality of life level, while 20% of studied patients had moderate total quality of life level, and only 9.3% of them had poor total quality of life regarding sleeve gastrectomy surgery.

Table (3): Reveals that; there was statistically positive correlation between studied patients total knowledge scores, total practices scores and their total quality of life

scores regarding sleeve gastrostomy (p<0.001).

Table (1): Frequency distribution of the studied patients regarding their socio-demographic characteristics (n=150).

Socio demographic characteristics	No.	%
Age\ years		
18 < 30	66	44.0
30 < 40	42	28.0
40 < 50	20	13.3
50 or more	22	14.7
Mean ±SD	42.61 ± 9.35	
Sex		
Male	41	27.3
Female	109	72.7
Place of residence		
Urban	85	56.7
Rural	65	43.3
Marital status		
Single	44	29.3
Married	106	70.7
Level of education		
Can't read and write	8	5.3
Secondary Education	43	28.7
University education and more	99	66.0
Family type		
Single	44	29.3
Nuclear	55	36.7
Extended	51	34.0
Occupation		
Employee	74	49.3
Free working	8	5.3
Does not work	68	45.3
Income		
Enough	64	42.7
Not enough	9	6.0
Enough and saved	77	51.3

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Table (2): Frequency distribution of the studied patient`s medical history regarding sleeve gastrectomy (n=150).

Medical history	No.	%
Previous performance of sleeve gastrectomy (yes)	23	15.3
Frequency of performing sleeve gastrectomy (n=23)		
Once	23	100.0
Duration of performance the previous sleeve gastrectomy (n=23)		
One year	14	60.9
1-3 years	6	26.1
More than 3 years	3	13.0
Duration of current a sleeve gastrectomy		
Week -two weeks ago	44	29.3
Two weeks - month ago	63	42.0
Month - two months	11	7.3
Three months or more	32	21.3
Duration of hospitalization after current sleeve gastrectomy		
Day	142	94.7
Two days or more in case of side effects	8	5.3
Taking medications beside the operation		
Yes	150	100.0
*Kind of medication		
Antibiotics	102	75.6
Sedations	99	73.3
Stomach medications	82	60.7
Anticoagulant medication	90	66.7
Cidovage	60	44.4
diet medication	73	54.1
Vitamins , menirals	112	83.0
Follow up after sleeve gastrectomy surgery		
After a week	86	57.3
After two weeks	32	21.3
A month later	32	21.3

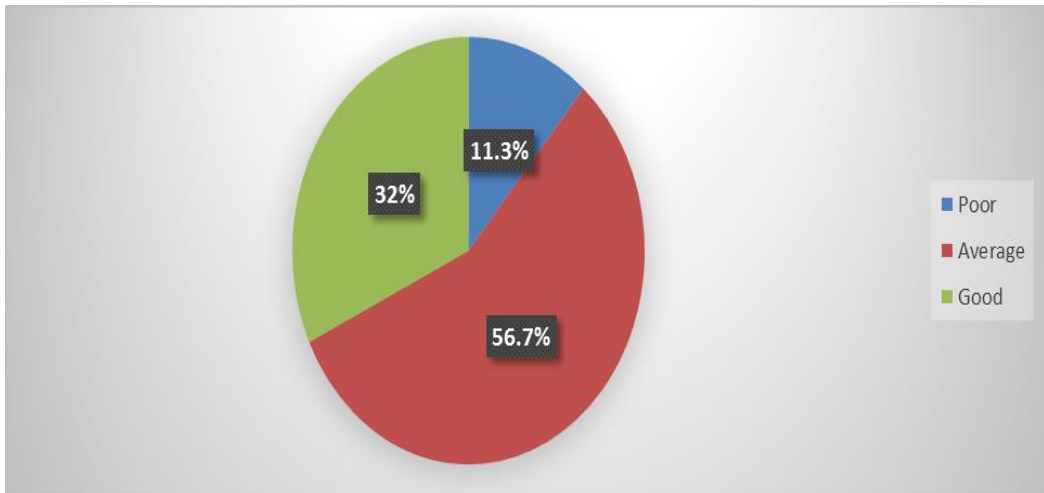


Figure (1): Percentage distribution of the studied patients' total knowledge level regarding sleeve gastrectomy (n=150).

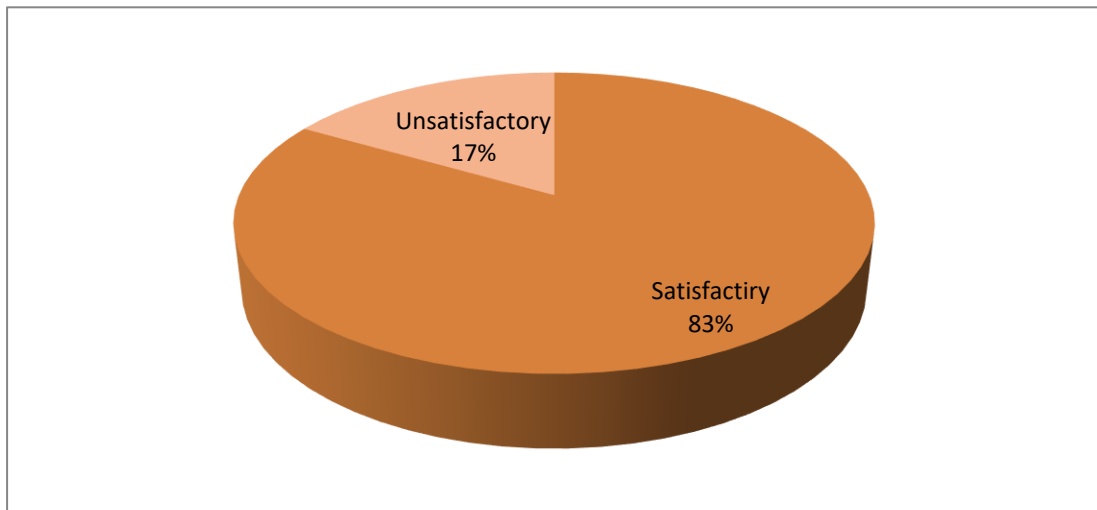


Figure (2): Percentage distribution of patients' total practices level regarding sleeve gastrectomy (n=150).

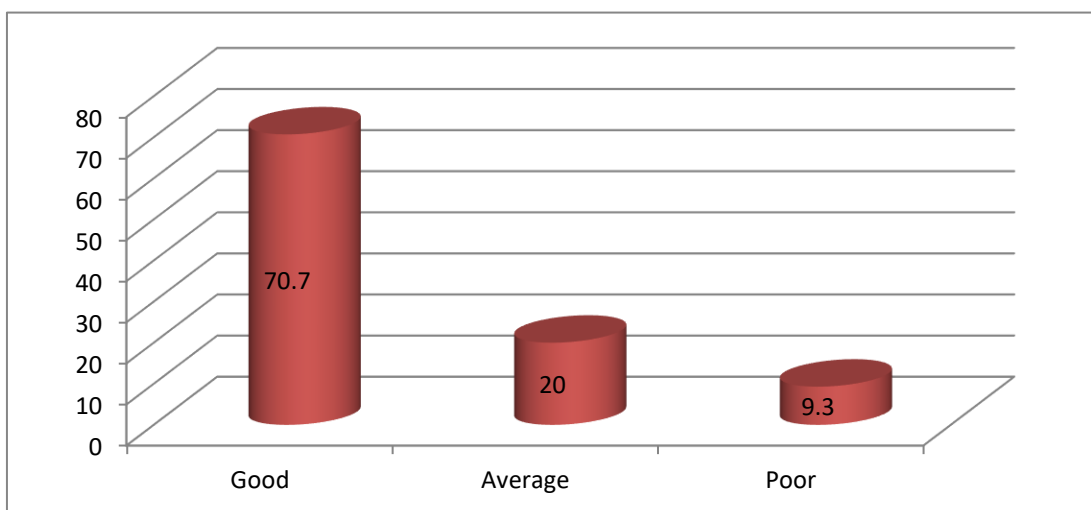


Figure (3): Percentage distribution of studied patient's regarding total quality of life level related to sleeve gastrectomy surgery (n=150).

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Table (3): Correlation between the studied patients' total knowledge scores, total practices scores and total quality of life scores (n=150).

Items	Total knowledge scores	
	r.	p-value
Total practices scores	.467	0.000**
Total quality of life	.684	0.000**

Discussion:

Sleeve gastrectomy is an efficient procedure that can result in considerable sustained weight loss in patients with obesity, resolves associated medical problems with obesity, and improves the quality of life. Weight loss after sleeve gastrectomy results in improvements in health, cellular processes, and metabolic biomarkers. Nevertheless, weight regain is described in approximately 30% of the patient's post-sleeve gastrectomy surgery and is a challenge to many patients and may complicate long-term outcomes. Weight regain after a sleeve gastrectomy procedure is related to the progression or recurrence of associated medical problems and decline in health-related quality of life and satisfaction (Alzaben et al., 2023).

Regarding socio-demographic data of the studied patients, the present study showed that; more than two fifth of the studied patients aged from 18 to less than 30 years old with mean was 42.61 ± 9.35 years. This finding agreed with Kamal et al. (2023), who studied "The impact of laparoscopic sleeve gastrectomy on thyroid functions in Egyptian patients with obesity, in Egypt" (n=106), and found that; 88.7% of the patients' ages ranged from 31 to 52 with a mean of 42 ± 6.1 years. Also this finding agreed with Mahmoud et al. (2023), who studied "Estimation of the impact of sleeve gastrectomy surgery on the morbidity and the effectiveness among Egyptians, in Egypt" (n=426), and found that; 72.5% of the patients' ages ranged from 31-40 years-old. This might be due to sleeve

gastrectomy surgery is the most effective obesity treatment procedures for adult, which has a better effect on weight loss.

Regarding to sex of the studied patients, the present study showed that; less than three quarters of the patients were female.

This finding was in the same line with Kassam et al. (2020), who studied "long-term outcomes in patients with obesity and renal disease after sleeve gastrectomy, in Ohio" (n=243), and found that; 58% of the studied patients were female. Also this finding agreed with the Emile et al. (2021), who studied "Single Anastomosis Sleeve Ileal (SASI) bypass versus sleeve gastrectomy: A case-matched multicenter study, in Egypt" (n=116), and found that, 83.6% of the patients were female. This might be due to females were concerned with their appearance as a motive for seeking sleeve gastrectomy surgery and the obesity affect female more than male.

Regarding to place of residence, the present study showed that; more than half of the patients were living in Urban area. This finding was in the same line with Keighley et al. (2022), who studied "Efficacy and safety of endoscopic sleeve gastroplasty and laparoscopic sleeve gastrectomy with 12 months of adjuvant multidisciplinary support, in Australia" (n=61), who found that; 95.1% of the studied patients had lived in urban regions.

Regarding to marital status, the present study showed that; more than two thirds of the studied patients were married. This

finding was in the same line with **Sharma et al. (2021)**, who studied "Metabolomic profiling of lipids and fatty acids: 3 years postoperative laparoscopic sleeve gastrectomy, in United Arab Emirates" (n=71), and found that; 67.6% of the studied patients were married. Also this finding agreed with **Kheirvari et al. (2021)**, who studied "Changes in clinical depression following sleeve gastrectomy, in Iran", (n=307), and found that; 56.0% of the patients were married.

Concerning to level of education, the present study showed that; two thirds of the studied patients had university education and more. This finding disagreed with **Alayaaf et al. (2021)**, who studied "General public awareness of indications and complications of sleeve gastrectomy in Al'qassim region, in Saudi Arabia" (n=553), and found that; 72.9% of the studied patients were bachelor's degree.

Regarding to family type, the present study showed that; more than one third of the patients had nuclear family. This finding agreed with **Suliman et al. (2022)**, who studied "A systematic review of the effects of sleeve gastrectomy and gastric bypass on type 2 diabetes control in the Middle East, in Qatar" (n=140), and found that; 30.8% of the studied patients had nuclear family.

Regarding to occupation, the present study showed that; slightly less than half of the patients were employee. This finding agreed with **Yildiz et al. (2021)**, who studied "Effect of probiotic supplementation after laparoscopic sleeve gastrectomy on constipation and gastrointestinal quality of life, in Turkey" (n=30), and found that; 73.3% of the patients were employed. Also this finding was in the same line with **Blumenfeld et al. (2023)**, who studied "Quality of life, depression, and food tolerance, after primary sleeve gastrectomy among Israeli patients: A

cross-sectional national study, in Israel" (n=160), and found that; 90.6% of the patients were employed.

The present study showed that; more than half of the studied patients had enough and saved income. This finding agreed with **Yayla & Menevşe (2023)**, who studied "Animation education program applied to laparoscopic sleeve gastrectomy patients effect on patient care results: A randomized controlled trial, in Turkey" (n=33), and found that; more than half of the patients had enough and saved income.

Regarding to medical history of the studied patients, the present study showed that; less than fifth of the studied patients performed previous sleeve gastrectomy surgery. According to **Doumouras et al. (2021)**, who studied "Sleeve gastrectomy and cardiovascular outcomes in patients with obesity and cardiovascular disease: A population-based retrospective cohort study, in Canada", (n=1319), who found that; 20.5% of the studied patients had performed previous sleeve gastrectomy surgery. This might be due to weight regain or inadequate weight loss.

The present study showed that; less than two thirds of the studied patients had sleeve gastrectomy surgery since <one year. This finding agreed with **Qumseya et al. (2021)**, who studied "Barrett's esophagus after sleeve gastrectomy: A systematic review and meta-analysis, in California", (n=680), and found that; 68.3% of the studied patients had performed the previous sleeve gastrectomy since 6 months to one year.

Regarding to duration of current sleeve gastrectomy, the present study showed that; more than two fifth of the studied patients had current a sleeve gastrectomy from 2 weeks to a month ago. This finding agreed with **Karaca (2020)**, who studied "Effects of

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sleeve gastrectomy with transit bipartition on glycemic variables, lipid profile, liver enzymes, and nutritional status in type 2 diabetes mellitus patients, in Turkey", (n=45), and found that; 57.8% of the patients had current sleeve gastrectomy since 2 weeks to a month ago.

The present study showed that; most of the patients hospitalized for one day after current sleeve gastrectomy. According to **Al-Fattah (2022)**, who studied "Efficacy and safety of sleeve gastrectomy after adjustable gastric band failure, in Cairo", (n=40), who found that; 50% of the studied patients stayed for one day postoperatively. However, this finding disagreed with **Alghamdi (2020)**, who studied "Assessment of post sleeve gastrectomy patient's satisfaction and their desire for body contouring surgery in Taif City, in Saudi Arabia", (n=108), and found that; 77.8% of the patients were staying at the hospital for 1-3 days. This might be due to the patients need to be under observation post-operatively.

The present study showed that; all of the studied patients took medications beside the operation. This finding was in the same line with **Howard et al. (2022)**, who studied "Medication use for obesity-related comorbidities after sleeve gastrectomy or gastric bypass, in Ann Arbor, in United States" (n=95405), and found that; 79.4% of the studied patients had taken the prescribed medications beside sleeve gastrectomy surgery. This might be due to medications help patients to treat and prevent sleeve gastrectomy complications.

Regarding to kind of medication, the present study showed that; majority of the patients took vitamins and minerals. This finding agreed with **Heusschen et al. (2021)**, who studied "Optimizing multivitamin supplementation for sleeve gastrectomy

patients, in Netherlands" (n=144), and found that; 63.8% of the patients had taken vitamins and minerals. This might be due to sleeve gastrectomy surgery patients are commonly at risk for deficiencies, so the patients took vitamins and minerals as dietary supplementations to prevent nutritional deficiencies.

Regarding to follow up after sleeve gastrectomy surgery, the present study showed that; less than three fifth of the studied patients followed up after weak after sleeve gastrectomy surgery. This finding agreed with **Quero et al. (2020)**, who studied "The Causes of gastroesophageal reflux after laparoscopic sleeve gastrectomy: Quantitative assessment of structure and function of the esophagogastric junction by magnetic resonance imaging and high-resolution manometry, in Italy" (n=487), and found that; 66.3% of the studied patients were followed up at one week after sleeve gastrectomy surgery. This might be due to help the patients sustain their weight loss efforts over the long term, and also follow-up visits are also necessary to help the patients recognize vitamin and iron deficiencies in the early stages of the weight loss so that appropriate treatment can be given.

Regarding to the studied patients' total knowledge level about sleeve gastrectomy, the present study showed that; more than half of the studied patients had good total knowledge level, while less than third of them had average total knowledge level, and more than tenth of them had poor total knowledge level regarding sleeve gastrectomy. These findings were in the same line with **Alayaaf et al. (2021)**, and found that; 99.1% of the patients were aware of sleeve gastrectomy. Also these findings supported with **Köhler et al. (2020)**, who reported that; 75% of the studied patients had

good total knowledge level regarding sleeve gastrectomy, while 25% of them had poor total knowledge level about sleeve gastrectomy. This might be due to that the medical team teach patients about sleeve gastrectomy surgery and this might be related to the patients' level of education help them to acquire knowledge about sleeve gastrectomy.

Regarding to the patients' total practices level regarding sleeve gastrectomy, the present study showed that; majority of the studied patients had satisfactory reported practices level regarding sleeve gastrectomy, and only less than fifth of them had unsatisfactory reported practices regarding sleeve gastrectomy. These findings were in the same

line with **Osman et al. (2023)**, who studied "Study of feasibility of simultaneous laparoscopic sleeve gastrectomy and cholecystectomy in patients with asymptomatic cholelithiasis, in Egypt", (n=18), and found that; 75.6% of the patients had excellent satisfactory reported practices regarding sleeve gastrectomy, and 24.4% of the studied patients had unsatisfactory reported practices regarding sleeve gastrectomy. This might be due to studied patient follow doctors guid lines after Sleeve gastrectomy to make satisfactory health consequence

Regarding to the studied patients' total quality of life level related to sleeve gastrectomy surgery, the present study showed that; more than two thirds of studied patients had good total quality of life level, while one fifth of the studied patients had average total quality of life level, and only less than tenth of them had poor total quality of life regarding sleeve gastrectomy surgery. These findings were in the same line with **Moustafa et al. (2021)**, who studied

"Laparoscopic sleeve gastrectomy versus laparoscopic single anastomosis gastric bypass: Short-term outcome, in Egypt" (n=40), and found that; 70% of the patients in the gastrectomy surgery had an excellent or very good total quality of life level. This might be due to the sleeve gastrectomy typically leads to pronounced weight loss and improvement of pre-existing diseases, and it can positively affect the QoL of patients, particularly in terms of physical performance.

Concerning correlation between the studied patients' total knowledge scores, total practices scores and total quality of life scores, the present study showed that; there was statistically positive correlation between studied patients total knowledge scores, total practices scores and their total quality of life scores regarding sleeve gastrectomy (p<0.001). These findings were in the same line with **Alkhodair et al. (2021)**, who studied "Comparison of quality of life between pre and post sleeve gastrectomy surgery patients at KAMC, Riyadh, in Saudi Arabia", (n=72), and found that; there was statistically positive correlation between studied patients total knowledge scores, total practices scores and their total quality of life scores regarding sleeve gastrectomy (p<0.001). This might be due to knowledge play an important role in changing practices and quality of life which in turn enhancing health regarding sleeve gastrectomy surgery.

Conclusion:

Approximately more than half of studied patients had good total knowledge level regarding sleeve gastrectomy, majority of them had satisfactory reported practices level regarding sleeve gastrectomy, and less than fifth of them had unsatisfactory reported practices level regarding sleeve gastrectomy and majority of studied patients had total quality of life level. There was statistically

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positive correlation between studied patient's total knowledge scores, total practices score and their total quality of life scores regarding sleeve gastrectomy.

Recommendations:

- Develop and implement health educational program for patients with sleeve gastrectomy to improve their knowledge and practices regarding sleeve gastrectomy .
- Regular follow up for patients with sleeve gastrectomy in Surgical Outpatient's Clinics by specialized team to prevent complication after sleeve gastrectomy .
- Further studies regarding Quality of life among patients with Sleeve Gastrectomy in large area.
- Web page for Sleeve gastrectomy patient to enhance learn studied patient.

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جوده الحياة بين مرضى تكميم المعدة

منار مصطفى موسى - محبوبه صبحي عبد العزيز- أمينه عبد الرازق محمود- تيسير حميدو ابو سريع

تعد عملية تكميم المعدة حالياً العلاج الفعال الوحيد للسمنة المرضية التي تؤدي إلى فقدان الوزن بشكل كبير ومستدام، وشفاء الأمراض المصاحبة المرتبطة بالسمنة، وتحسين نوعية الحياة. هدفت هذه الدراسة الي تقييم نوعية الحياة لدى المرضى الذين يخضعون لعملية تكميم المعدة. تم استخدام تصميم البحث الوصفي في إجراء هذه الدراسة. أجريت هذه الدراسة في العيادة الجراحية الخارجية بمستشفى بنها الجامعي ومستشفى بنها التعليمي. و تم استخدام عينه مكونة من 150 مريضاً ممن أجريت لهم عملية تكميم المعدة. بناءا علي نتائج الدراسة الحاليه واسئله البحث يمكن استنتاج ما يلي: كانت هناك علاقة ذات دلالة إحصائية عالية بين الدرجات المعرفية الكلية للمرضى الذين شملتهم الدراسة وأعمارهم، جنسيتهم، مكان إقامتهم، مستوى التعليم، المهنة، والدخل. الاستنتاج: توجد علاقة ذات دلالة إحصائية عالية بين مجموع درجات الممارسات للمرضى الذين شملتهم الدراسة وأعمارهم، جنسهم، مكان إقامتهم، الحالة الاجتماعية، مستوى التعليم، نوع الأسرة، والمهنة. كانت هناك علاقة ذات دلالة إحصائية عالية بين درجات الجودة الشاملة للحياة والخصائص الاجتماعية والديموغرافية للمرضى الذين شملتهم الدراسة. واوصت الدراسة بضرورة دراسة العوامل الأخرى التي تؤثر على جودة مرضى تكميم المعدة.