Effect of Nursing Instructions on Quality of Life for Females Undergoing Abdominoplasty

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Abstract

Background: Abdominoplasty is the most frequently executed cosmetic surgical procedures globally. Effective postoperative care is crucial for optimal recovery and results. As abdominoplasty techniques continue to advance, they significantly improve aesthetic appearance and patient satisfaction, contributing to enhanced overall well-being and quality of life. **Aim:** Evaluate the effect of nursing instructions on quality of life for females undergoing abdominoplasty. **Design:** This study used a quasi-experimental design. **Setting:** This study was carried out at Assiut University Hospital's general surgical department and surgical outpatient clinic. **Sample:** A purposive sample of sixty females undergoing abdominoplasty, aged between 20 to 60 years who consented to take part in the study. **Tools:** Tool (I): Patients assessment sheet, and Tool (II): The World Health Organization Quality of Life- BREF questionnaire. **Results:** There was a significant difference in knowledge scores between the study and control groups for patients after one and three months, with a p-value of (0.000). Additionally, there was a significant difference in the quality of life of patients for both groups after one and three months, with p-values of (0.006 and 0.000). **Conclusion:** The nursing instructions had a statistically significant positive effect on improving patients' knowledge and quality of life for females underwent abdominoplasty. **Recommendation:** Nursing educational instructions contains comprehensive information should be provided for patients undergoing abdominoplasty.

Keywords: Abdominoplasty, Nursing Instructions & Quality of Life

Introduction:

Abdominoplasty is a cosmetic surgical procedure used to create a slimmer and firmer abdomen. It involves excising surplus skin and fat from the central and lower abdomen to firm up the abdominal wall's muscles and fascia. Patients typically seek this type of surgery to address loose or sagging tissues that occurs following pregnancy or significant weight loss **(Louri et al., 2020)**.

Abdominoplasty is the most frequently conducted cosmetic surgical procedures globally. The main purpose of an abdominoplasty is to alter the shape by removing excess skin and fat tissue to redefine the abdominal wall. This cosmetic procedure has become gained popularity due to its combined advantages of boosting physical appearance and enhancing the function of the abdominal area. The progress in surgical methods throughout the years has greatly enhanced the safety and effectiveness of abdominoplasty, providing a practical choice for numerous individuals looking for body sculpting options **(Rassam & Davoudi., 2024).**

The growing demand for plastic surgery has raised regarding the perioperative period, a new approach to patient care in plastic surgery has been developed, and suggesting that achieving a more satisfactory outcome from procedures depends not only on the surgical planning and expertise of the plastic surgeon

but also on the comprehensive care provided by various professionals involved in this field. During the postoperative phase, it is crucial to ensure that the patient receives the appropriate care to enhance recovery post-surgery, as well as to prevent manage, or reduce potential postoperative complications, ultimately promoting the well-being and quality of life for patients **(Santos et al., 2023)**.

Abdominoplasty surgery is considering a safe procedure, but it carries a higher risk of complications compared to other cosmetic surgeries. Possible complications consist of infections, skin necrosis, seromas, and hematomas. These complications have great negative effect on functional ability of patients and on their quality of life **(Sadeghi et al., 2022)**.

The World Health Organization (WHO) identify the meaning of QoL as an individual's perception of their position in life concerning their objectives, aspirations, standards, and concerns along with the culture and value systems in which they live. It is an extensive concept that significantly shaped by a person's physical and mental health, beliefs, social relationships, and their interaction with essential aspects of their environment. QoL measures patients' subjective assessments of how a clinical condition affects their ability to live independently, feel satisfied in their everyday lives, and complete social and physical duties **(Pant., 2023)**. Obesity effect on

mobility, directly affecting living daily activities **(Jiwattanasuk et al., 2022)**.

Quality of life encompasses various domains, including physical health, which pertains to functional capacity and physical comfort; psychological health, which involves mental well-being, social support, interpersonal relationships, and cultural influences, social relationships, referring to both personal social networks and broader societal structures; environmental factors. Which cover self-esteem, self-determination, cognitive function, and overall life satisfaction; and spiritual dimensions **(Punreddy et al., 2024).**

Recovery from an abdominoplasty typically takes a few weeks, during which the patient needs to follow the post-operative instructions provided by the surgeon. These instructions may include avoiding sever activities and the patients should wear a compression garment, during the recovery period, and maintaining a healthy lifestyle to support the healing process **(Harris & Darby., 2020)**.

Significant of the study:

Throughout the world, abdominoplasty is one of the most popular aesthetic surgery treatments. Although it is thought to be a safe surgery, there is a greater chance of complications than with other cosmetic surgeries. The functional status and, hence, quality of life of the patient are negatively impacted by these complications. The negative effects of obesity on the quality of life especially in female can be avoided through nursing guidelines which are offered before and after bariatric surgeries for morbid obesity patients **(Sadeghi et al., 2022)**. Few studies provide some sufficient data regarding the effects of abdominoplasty on various aspects of quality of life. So the present study was conducted to help these female patients to attain healthy lifestyle and improve quality of life.

Aim of the study:

To evaluate the effect of nursing instructions on quality of life for females undergoing abdominoplasty.

Specific objectives:

1. Assess patients' knowledge regarding abdominoplasty
2. Designing and applying nursing instructions for females undergoing abdominoplasty.
3. Evaluate the effect of applying nursing instructions on patients' quality of life.

Research hypothesis:

- Following the application of nursing instructions, the study group's post-mean knowledge scores will be greater than those of the control group.
- The quality of life will be improved in the study group after application of nursing instructions than the control group.

Subjects and Methods

Research Design: The design used in the study was quasi-experimental (pre-test and post-test), (study and control). The independent variable was the nursing Instructions and the dependent variable was patients' quality of life.

Setting:

This study was carried out at Assiut University Hospital's general surgical department and surgical outpatient clinic.

Patients:

A convenience sample of sixty adult female patients scheduled for abdominoplasty, their age ranged from twenty to sixty years and willing to participate in the study. Those 60 patients were equally distributed on random basis into study and control group (30) patients for each.

Group I: (study group): received the nursing instructions along with the routine hospital care.

Group II: (control group): received the routine hospital care only.

Sample size:

It was computed using (G power software) as sixty patients. Sample size calculated for comparing two independent means with two tails. "error 0.05," "effect size 0.8," and "power 95%" were used.

Tools:

Tool (I): Patients' assessment sheet:

The researchers created it using current national and international literature as a guide **(Harrison & Brown., (2020)**. Three sections were featured in it:

Part (I): Demographic data for the patient as (age, occupation, marital status, residence, level of education).

Part (II): Medical data: It was included patients' physical data as (height, weight, body mass index) and presence of chronic diseases, previous surgery.

Part (III): Patients' knowledge assessment sheet:

It was developed by the researchers to assess Patients' knowledge regarding meaning of abdominoplasty, preoperative instructions and preparation and postoperative care, postoperative complications, diet, exercises and physical activity and the instructions on discharge.

Scoring system:

Each right answer was given two degree. The total scores were (grade 54), these scores were then converted to a percentage score, and the patient's results were divided into three groups: low knowledge (less than 50%), fair knowledge (between 50% and 70%), and good knowledge (more than 70%).

Tool (II): WHO Quality of Life Scale (WHOQOL-BREF, Questionnaire, 1997)

It comprises 26 items, which measure the following broad domains:

Physical domain (7 items)**:** This domain assess pain and discomfort, energy and fatigue, sleep and rest, mobility, activities of daily living, dependence on medicinal substances and medical aids, and work capacity.

Psychological domain (6 items)**:** This domain contains number of questions about positive feelings as thinking, learning, memory and concentration, self-esteem, bodily image and appearance, and negative feelings as spirituality, religion and personal beliefs.

Social relationships domain (3 items)**:** This domain involves personal relationships, social support and sexual activity.

Environmental domain (8 items): This domain covers issues related to physical safety and security, home environment, financial resources, health and social care, opportunities for acquiring new information and skills, participation in and opportunities for recreation/leisure, physical environment and transport.

Two other items measure overall QOL and general health. Items are rated on a 5-point Likert scale (low score of 1 to high score of 5) to determine a raw item score.

Scoring system:
Patients were categorized as having a low, fair, or good quality of life based on the range of total scores, which vary from 26 to 130. A total score of ≥70% indicated a good quality of life, a score of 50<70% indicated a fair quality of life, and a score of <50% indicated a bad quality of life.

Nursing Instructions:
The researchers reviewed current national and international literature to improve patients' quality of life, and then formulated nursing instructions based on patients' assessment needs (**Harris & Darby., 2020, Nuveen et al., 2020 and Martins et al., 2022**). It was created and presented to the patients during sessions. Based on the expert feedback, the nursing instructions booklet was updated and changed. It was written in Arabic in plain language and included drawings that addressed the following topics:
- Definition of abdominoplasty, indications and contraindications of abdominoplasty.
- Preoperative instructions for abdominoplasty (day before operation, day of operation).
- Postoperative instructions for abdominoplasty (Immediately postoperative care, wound care, benefits of abdominal binders or compression garments, diet (Eat small, balanced meals that are low in calories, fats, and sweets; chew your food slowly and thoroughly; and take supplements of vitamins and minerals), simple exercises like walking at beginning then moderate exercises as job activities and daily living activities, travel, sex, pregnancy, and sleep).

- Appointments for follow-up following hospital discharge.
- Signs and symptoms of complications, that necessitated the patient to go back immediately to the hospital.

Content validity:
The tools and the nursing instructions were reviewed and determined by a panel of five experts (two from the field of general surgical medicine and three from medical surgical nursing department, Faculty of Nursing, Assiut University). The tools' correctness, consistency, design, format, information, and relevance were all subject to their opinions. From their perspective, just minimal adjustments were made.

Reliability:
The Cronbach's Alpha coefficient test was used to evaluate the WHOQOL-BREF's reliability, and the results showed that the instrument's items were comparatively homogeneous (0.95).

Pilot study:
Ten percent (6) of the study sample patients undergoing abdominoplasty participated in a pilot study to evaluate the tools' viability, comprehensibility, and usefulness before the required adjustments were made. None of the patients who took part in the pilot study were included in the research sample.

Ethical considerations:
The research proposal was accepted by ethical committee in faculty of nursing. Official permission was acquired from the head of General Surgical Departments and surgical outpatient clinic to gather data after study aim explanation. Oral consent and agreement were taken from patients and reassured them about the confidentiality after clarifying the nature and reason of the study. The patients had the right to quit from the study at any moment and for any reason, as well as to refuse to take part.

Data collection (fieldwork)
After approval was granted to gather data and the objective of the education was clarified, the researchers started data collection from September, 2023 till the end of June, 2024. Five phases comprised the study's execution: preparatory, assessment, planning, implementation and evaluation phase.

Preparatory phase:
A pilot study and contents validation were conducted to conclude this phase, which involved a survey of previous and current local and worldwide related literature, including textbooks, articles, journals, periodicals, magazines, then study tools were developed.

Assessment phase:
Once permissions to proceed with the study were granted, the researchers established a line of communication with the study sample by introducing themselves before initiating data collection. The researchers interviewed each patient individually to assess baseline data on demographic data, medical data and knowledge assessment using tool I and quality of life using tool II. Assessment of BMI (Body Mass Index) was calculated using weight and height measurements pre nursing instructions. BMI was calculated using the formula:

BMI = Weight (kg) / Height (m)^2

Studied groups were categorized based on BMI:
- Underweight: BMI < 18.5
- Normal weight: BMI 18.5–24.9
- Overweight: BMI 25–29.9
- Obesity: BMI ≥30
  - Class 1 Obesity: 30 to less than 35.
  - Class 2 Obesity: 35 to less than 40.
  - Class 3 Obesity (Severe Obesity): 40 or greater

At the end of this phase, the researchers asked the patients their telephone number to conduct further follow up.

Planning phase:
Instructions booklet designed by researchers based on patients assessment needs and a review of the related literature. Designed with illustrations in a basic Arabic language. Contained brief and simple information related meaning of abdominoplasty, preoperative preparation and postoperative care, diet, exercises and physical activity, follow up visits schedule and complications. For the purpose of the study, appropriate teaching aids were created especially for the nursing instructions, and all patients got the identical instructions using the same teaching strategies.

Implementation phase:
Three sessions of nursing instructions were given to the patients; based on the patients' replies, each session lasted between thirty and forty-five minutes.

The first session: The researchers started by presenting themselves to the patients telling them about the purpose of the interview, assessing baseline data using tool I (part 1,2, and 3), then explained what an abdominoplasty is, its indications, contraindications, and preoperative instructions (the day before and the day of the procedure).

The second session: overview of the topics covered in a prior session, the goal of the current one, and the topics covered in this one included postoperative instructions for abdominoplasty (Immediately postoperative care, Routine care). Patients received information about dietary guidelines, including eating small, balanced meals, avoiding high-calorie, high-fat, and high-sugar foods, chewing food slowly, and

taking supplements of vitamins and minerals. They also kept a daily log of their protein and calorie intake. Semi-Fowler position for two weeks after surgery helps prevent overstressing the incision and lowers the chance of hypertrophic scarring. wear an abdominal binders or compression garments over the surgical site for about 4-6 weeks post-surgery, it offer immediate support after abdominoplasty, reduces the risk of fluid build-up and supports the body as it adjusts to its new contours and are vital for holding the abdominal muscles in place, aiding in quicker recovery. Patients' comments and a summary of the session's contents concluded it.

The third session: It included: other instructions as sleep, travel sex, pregnancy, follow-up appointments after discharge from the hospital, and signs and symptoms of complications that necessitated the patient to return immediately to the hospital. The session concluded with a review of the topics covered and input from the patients via questions and discussion.

Everyone in the study group was provided a written, colored, and illustrated nursing instructions booklet filled with pictures and the researchers' phone numbers and other contact details in case they have any questions.

Evaluation phase:
After the application of nursing instructions, the researchers interviewed each patient individually in the surgical outpatient clinic and evaluated them through similar pre-test tools (tool I part 3) regarding patients' knowledge, and tool (II) WHO Quality of Life Scale, then comparing with baseline assessments. At the conclusion of the trial, one and three months after the nursing instructions were applied; a comparison of the pre-test and post-test results for each patient was conducted.

Statistical analysis
Using (SPSS) version (26), the gathered data were tabulated and statistically examined to evaluate the variations among the groups under study using frequencies and percentages with mean ± SD. Pearson's correlation test, one-way ANOVA, chi-square tests, and independent sample T-test were employed to examine the association between the variables. When P is less than 0.05, it is deemed significant; P 0.05 is very significant.

Results:

Table (1): Frequency & percentage distribution of studied groups related to demographic data (n=60)

Items	Study Group		Control Group		F-test	P-value
	No. (n=30)	%	No. (n=30)	%		
Age:						
20 to < 40	4	13.3	5	16.7	0.000	1.000
40 to < 60	26	86.7	25	83.3		
Mean ± SD	44.9 ± 12.2		44.8±11.3			
Range	18 – 60		18 – 60			
Gender:					-	-
Male	0	0.0	0	0.0		
Female	30	100.0	30	100.0		
Level of education:						
Employee	6	20.0	8	26.7	0.004	0.951
Primary education	7	23.3	8	26.7		
Secondary education	15	50.0	13	43.3		
University education	2	6.7	1	3.3		
Occupation:						
Employee	12	40.0	11	36.7	0.269	0.606
Housewife	18	60.0	19	63.3		
Marital status:						
Single	1	3.3	2	6.7	0.939	0.337
Married	25	83.3	23	76.6		
Divorced	3	10.0	3	10.0		
Widow	1	3.3	2	6.7		

Independent sample T-test   ** Statistical significant differences (p < 0.05)*

Table (2): Frequency & percentage distribution of studied groups according to medical data (n= 60)

Items	Study Group		Control Group		F-test	P-value
	No. (n=30)	%	No. (n=30)	%		
BMI						
Overweight	21	70.0	18	60.0	0.047	0.829
Obese class 1	5	16.7	8	26.7		
Obese class 2	4	13.3	4	13.3		
Diabetes:						
Yes	8	26.7	9	30.0	0.318	0.575
No	22	73.3	21	70.0		
If diabetes:						
Disciplined	8	100.0	9	100.0	0.318	0.575
Not disciplined	0	0.0	0	0.0		
Hypertension:						
Yes	15	50.0	17	56.7	0.525	0.472
No	15	50.0	13	43.3		
If hypertension:						
Disciplined	15	100.0	17	100.0	0.525	0.472
Not disciplined	0	0.0	0	0.0		
Do you have children:						
Yes	29	96.7	28	93.4	1.396	0.242
No	1	3.3	2	6.6		

Independent sample T-test   ** Statistical significant differences (p < 0.05)*

Table (3): The deference between study and control groups' knowledge alongside the study period (n= 60)

Items	Study Group (n=30)						Control Group (n=30)						P-value 1	P-value 2	P-value 3
	Pre		Post 1 month		Post 3 month		Pre		Post 1 month		Post 3 month				
	No	%	No	%	No	%	No	%	No	%	No	%			
Poor	24	80.0	2	6.7	1	3.3	25	83.3	15	50.0	5	16.7	0.686	0.000 ***	0.000 ***
Fair	6	20.0	11	36.7	9	30.0	5	16.7	10	33.3	15	50.0			
Good	0	0.0	17	56.7	20	66.7	0	0.0	5	16.7	10	33.3			

Independent sample T-test
* Statistical significant differences (p < 0.05)
P-value1: relation between pre study group & pre control group
P-value2: relation between post 1-month study group & post 1-month control group
P-value3: relation between post 3-month study group & post 3-month control group

Table (4): The difference between quality of life among study and control groups alongside the study period (n= 60)

Items	Study Group (n=30)						Control Group (n=30)						P-value 1	P-value 2	P-value 3
	Pre		Post 1 month		Post 3 month		Pre		Post 1 month		Post 3 month				
	No	%	No	%	No	%	No	%	No	%	No	%			
Poor	24	80.0	2	6.7	1	3.3	25	83.3	9	30.0	7	23.3	0.411	0.006 **	0.000 ***
Fair	6	20.0	9	30.0	10	36.3	5	16.7	11	36.7	11	36.7			
Good	0	0.0	19	63.3	19	63.3	0	0.0	10	33.3	12	40.0			

Independent sample T-test
* Statistical significant differences (p < 0.05)
P-value1: relation between pre study group & pre control group
P-value2: relation between post 1-month study group & post 1-month control group
P-value3: relation between post 3-month study group & post 3-month control group
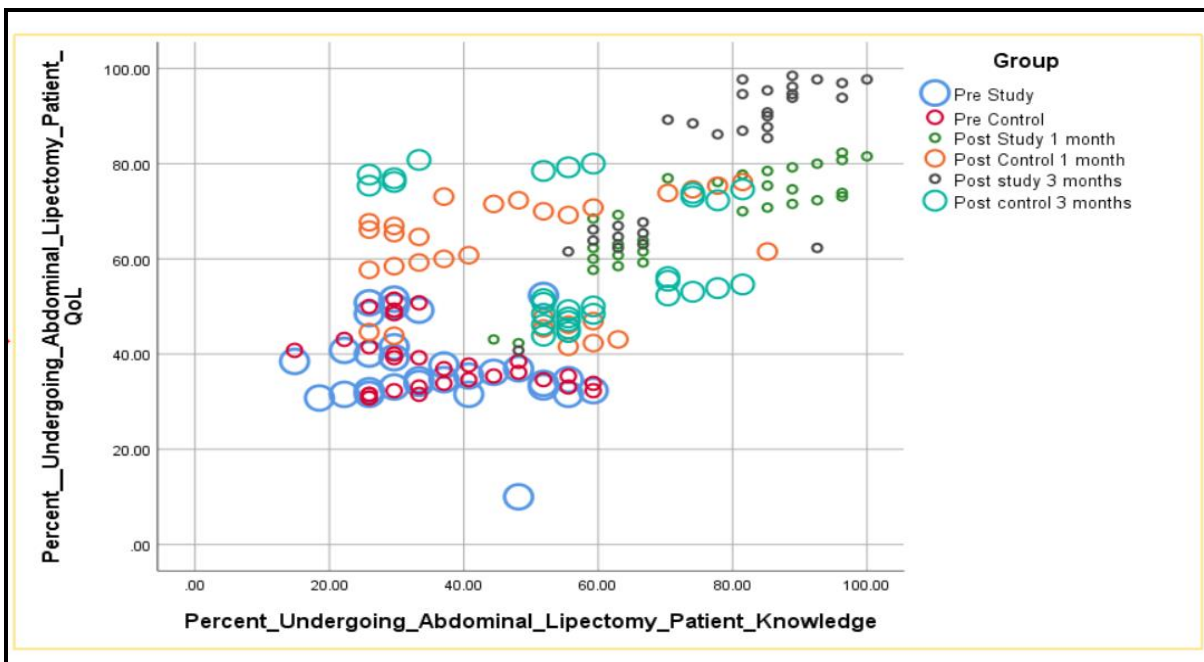

Figure (1): Correlation coefficients between patients' knowledge and quality of life pre, post 1 and 3 months of the nursing instructions.

Table (5): Relationship between patients' knowledge and demographic characteristics

Items	Study Group						Control Group					
	Pre		Post 1-month		Post 3-month		Pre		Post 1-month		Post 3-month	
	F-test	P-v	F-test	P-v	F-test	P-v	F-test	P-v	F-test	P-v	F-test	P-v
Age	1.120	0.299	3.258	0.125	2.114	0.212	1.167	0.289	1.174	0.324	2.125	0.139
Gender	-	-	-	-	-	-	-	-	-	-	-	-
Education	0.654	0.425	2.687	0.321	1.235	0.091	0.008	0.929	2.551	0.143	1.569	0.227
Occupation	5.600	0.125	2.354	0.125	2.335	0.209	3.667	0.066	1.254	0.091	2.144	0.173
Marital status	2.257	0.127	3.218	0.156	3.030	0.129	2.254	0.210	2.354	0.147	2.912	0.132

*One way ANOVA   * Statistical significant differences ($p < 0.05$)*

Table (6): Relationship between patients' Quality of Life and demographic characteristics:

Items	Study Group						Control Group					
	Pre		Post 1-month		Post 3-month		Pre		Post 1-month		Post 3-month	
	F-test	P-value	F-test	P-value	F-test	P-value	F-test	P-value	F-test	P-value	F-test	P-value
Age	1.20	2.99	1.586	0.125	2.878	0.111	1.167	0.289	1.181	0.124	2.137	0.160
Gender	-	-	-	-	-	-	-	-	-	-	-	-
Education	3.841	0.122	1.014	0.158	1.883	0.217	2.516	0.124	2.770	0.147	1.699	0.125
Occupation	0.509	0.481	1.891	0.173	1.684	0.108	2.667	0.166	2.451	0.124	2.176	0.157
Marital status	0.685	0.485	1.800	0.179	2.233	0.125	2.667	0.166	1.447	0.146	0.318	0.730

*One way ANOVA   * Statistical significant differences ($p < 0.05$)*

Table (7): Relationship between patients' Quality of Life and medical data:

Items	Study Group						Control Group					
	Pre		Post 1-month		Post 3-month		Pre		Post 1-month		Post 3-month	
	F-test	P-value	F-test	P-value	F-test	P-value	F-test	P-value	F-test	P-value	F-test	P-value
BMI	0.764	0.389	3.226	0.155	2.633	0.125	2.584	0.119	1.608	0.117	2.666	0.144
Diabetes	2.800	0.105	2.610	0.173	2.421	0.183	2.625	0.116	1.724	0.113	2.866	0.116
Hypertension	2.333	0.125	1.556	0.116	2.316	0.152	1.056	0.133	1.465	0.249	2.409	0.128
Having children	0.243	0.626	1.260	0.109	1..254	0.113	0.406	0.529	1.700	0.185	1.620	0.217

*One way ANOVA   * Statistical significant differences ($p < 0.05$)*

Table (1): Displays that, the mainstream of patients in the study and control groups were between the ages of 40-60 years, with the mean ages were (44.9 ± 12.2, 44.8 ± 11.3) respectively. All of them were females. Half of study group and about half of control group (43.3%) had secondary level of education. About two thirds of both groups were housewives (60% and 63.3%, respectively). Most of them were married (83.4% and 76.6%, respectively). There is no statistical significance difference between both groups concerning demographic data of patients.

Table (2): Illustrates that, over two thirds of study group (70%) and about two thirds of control group (60%) were overweight. About one third of both groups (26.7% and 30 %, respectively) had diabetes. Half of study group and above half of control group (56.7%) had disciplined blood pressure. Most of both groups had children (96.7% and 93.4%, respectively). There is no statistical difference between groups about medical data of patients.

Table (3): Clarifies that, there was no statistically significant difference between pre-study and pre-control groups regarding knowledge scores of patients with p-value 0.686. There was highly statistically significant difference between post-study and post-control groups regarding knowledge scores of patients with p-value 0.000.

Table (4): Clarifies that, there was no statistically significant difference between pre-study and pre-control groups regarding patients' quality of life. There was a highly statistical difference between post-1 month-study and post-1 month-control groups regarding patients' quality of life with p-value 0.006. Also, there was a very highly statistical difference between post-3 months-study and post-3 months-control groups regarding patients' quality of life with p-value 0.000.

Figure (1): Shows a positive correlation between patients' knowledge and their quality of life. By

improving the patients' knowledge, the patients' quality of life improved.

Table (5): Denotes that, there was no significant correlation between demographic data and knowledge in study and control group pre and post one and three months of nursing educational instructions.

Table (6): Denotes that, there was no significant correlation between demographic data and quality of life in study and control group pre and post one and three months of nursing educational instructions.

Table (7): Denotes that, there was no significant correlation between medical data and quality of life in study and control group pre and post one and three months of nursing educational instructions.

Discussion:

The worldwide rise in obesity, with a prevalence of 39%, poses a significant health challenge on a global scale. Consequently, obesity and its associated health issues are increasingly presenting difficulties that carry considerable economic and medical consequences **(Sadeghi et al., 2022)**. Bariatric surgery has been more popular in recent years as a result of the rising prevalence of obesity over the past few decades. For obese patients with significant obesity-related comorbidities or for whom lifestyle changes have not worked, bariatric surgery is an appealing alternative for weight loss **(Chang et al., 2024).**

Abdominoplasty is a recognized cosmetic surgical procedure aimed at enhancing body shape. It involves the removal of surplus skin and fat from the stomach area, which helps to restore the integrity of the muscles and fascia while improving skin elasticity, ultimately creating a more desirable body silhouette and enhancing overall quality of life. While abdominoplasty is generally safe when compared to other body-contouring procedures **(Sadeghi et al., 2022)**.

Regarding demographic data, current study stated, the majority of patients in the study and control groups were between the ages of forty to sixty years, with the mean ages were (44.9 ± 12.2, 44.8 ± 11.3) respectively. All of them were females. Most of them were married. About two thirds of both groups were housewives. Half of study and control group had secondary educational level.

The findings are corroborated by **(Kirstein et al., 2023)**, who reported that the average age of patients seeking liposuction was 40.72 years (± 12.54), with participants ranging from eighteen to eighty one years old. Additionally, **(Maningas et al., 2020)** discovered that the mean (SD) age in the treatment group was 41.8 years (8.37), with a range of thirty two to fifty nine years, while the control group had a mean age of

40.8 years (9.39) within a range of thirty to fifty nine years.

The findings contradict those reported by **(Kamundi et al., 2024)**, which indicated that the average age of the participants was 35.4 years (SD 6.8), with the youngest being twenty two years and the oldest at fifty one years. However, their research aligns with the current study, which revealed that the majority of participants were female and had post-secondary education.

The results were corroborated by **(Neel et al., 2024)**, who reported that most individuals in the study belonged to the thirty one to fifty year age range. The majority of the patients were married women and against the results as they found that, more than two thirds of the sample had a bachelor's degree, and over half of the sample was employed.

The results of the study were inconsistent with those reported by **(Fathi & Mahmoud., 2022)**, whose findings indicated that the majority of women studied were between the ages of thirty five and forty five, with two-fifths having obtained a bachelor's degree. Furthermore, findings from the research by **(Alotaibi et al., 2022)**, titled "Post-Bariatric Surgery Patients: A Quality-of-Life Assessment in Saudi Arabia," revealed that approximately half of the four hundred participants were aged between thirty six and forty five years and had completed their bachelor's education.

In terms of medical data, the results showed that more than two-thirds of both the study and control groups were classified as overweight. Approximately one-third of individuals in both groups were diagnosed with diabetes. Half of the study group and slightly more than half of the control group had hypertension under control. The majority of participants from both groups had children. There was no significant difference between the study and control groups in terms of the medical data collected from the patients. From the researchers' perspective, these results support the idea that obesity, hypertension, and diabetes are often interconnected.

The findings were supported by **(Ali., 2019)**, who demonstrated that almost half of both the study and control groups experienced hypertension, with about one-quarter of them having diabetes (type I & II); however, there was no statistically significant difference observed between the two groups. This was further corroborated by **(Kamundi et al., 2024)**, who indicated that the average BMI of the patients was 28.0 (SD 4.1) kg/m2. Moreover, **(Neel et al., 2024)** aligned with the current findings regarding the presence of comorbidities, as they found that approximately one-fifth of patients had comorbid conditions, with diabetes and hypertension being the most frequently observed chronic illnesses.

Additionally, this outcome is in agreement with **(Oyekale, 2019)**, who found that the risk of hypertension was positively correlated with overweight and obesity among the women they studied.

Concerning patients' knowledge, the study reported that there was no statistically significant difference in knowledge scores between the pre-study and pre-control groups, with a p-value of 0.686. However, there was a highly significant difference in knowledge scores between the two groups after one and three months of educational nursing interventions, with a p-value of 0.000. This can be attributed to the fact that nursing educational interventions provide knowledge, expertise, and support to patients undergoing abdominoplasty, facilitating essential changes and weight reduction.

The results align with the findings of **(Ali et al., 2023)**, which indicated a notable statistical enhancement in the overall knowledge levels of the studied patients one month, three months, and six months following the program's implementation. Additionally in accordance with **(Sierżantowicz et al., 2020)** , who stated that the participants who participated in the education sessions, the knowledge level was high, both after 3 months and after 6 months, which was statistically significant. According to recommendations strength training should be undertaken two to three times a week.

That Furthermore, **(El-Maghawry et al., 2021)** stated that most patients lacked adequate knowledge regarding lifestyle changes after surgery prior to the implementation of the health education program. However, following the health education program, the patients demonstrated satisfactory knowledge in the first, second, and third postoperative evaluations. This change was found to be statistically significant.

The result was strengthened by **(Ali., 2019)**, who demonstrated that most participants in both the study and control groups had a low level of knowledge before the implementation of the nursing guidelines. However, there was a notable enhancement in the level of knowledge within the study group after the nursing guidelines were applied, in comparison to both the control group and the initial assessment of the study group.

Regarding the quality of life of patients, the study found no statistically significant difference between the pre-study and pre-control groups concerning patients' QoL, with a p-value of 0.411. However, a highly statistically significant difference was observed between the study and control groups in terms of QoL after one and three months of educational nursing instructions, with p-values of 0.006 and 0.000, respectively. This indicates the effectiveness of the topics covered in the nursing

educational instructions, which focused on essential practices to combat unhealthy behaviors and encouraged improvements and modifications in lifestyle.

The result was reinforced by **(Ali., 2019)**, who found that, a notable enhancement in the quality of life among the study group following the implementation of nursing guidelines, in contrast to the control group, where a statistically significant difference was observed. Additionally, these conclusions were affirmed by another study conducted by **(Alkassis et al., 2019)**, which indicated that weight loss surgery enhances quality of life and facilitates the reduction of associated health conditions.

These findings also in line with **(Fathi & Mahmoud., 2022)**, who demonstrated that there were notable differences in the quality of life levels among the women studied before and after the program implementation. This indicates that significant enhancements occurred in self-esteem, physical well-being, social connections, work life, and sexual health among the women after the program. Additionally, this finding corresponds with the research conducted by **(Ambak et al., 2018)**, which indicated that weight loss intervention programs employing behavioral modifications resulted in a marked improvement in quality of life for obese housewives.

The present study found that, there was a positive correlation between patients' knowledge and their quality of life. By improving the patients' knowledge, the patients' quality of life improved. From researchers view, this could be attributed to the strong association between patients' knowledge and quality of life, compliance of patients to knowledge presented will be reflected on improving their quality of life. This finding aligns with the work of **(Mohamed & Bahgat., 2019)**, who noted that increasing patients' knowledge significantly affected the reduction or prevention of postoperative complications, thereby enhancing both quality of life and overall health.

The research stated that, there was no significant correlation between demographic, medical data and knowledge in study and control group pre and post one and three months of nursing educational instructions.

This finding in conflict with **(Ali et al., 2023)**, who revealed, there was a significant difference between the patients' total knowledge score, residence, level of education and occupation preprogram implementation and after three months post program implementation. Also was in conflicts with **(Cadena-Obando et al., 2020)**, who displayed that in posttest; significant relationship was present between patients' educational level, residences and knowledge level.

The research found that, there was no notable relationship between quality of life, demographic and

medical data in both the study and control groups before and after one and three months of nursing educational instructions.

The result was disagreeing with **(Ali., 2019)**, who claimed, there was a statistically significant correlation between patients' overall quality of life after guideline implementation and both their age and marital status, proposing that younger and married patients reported a higher quality of life compared to other demographics. Additionally, **(Janik et al., 2016)** indicated that among the nine variables examined, including gender, age, and marital status, these factors influenced quality of life and should be considered in future research regarding quality of life and bariatric surgery. Furthermore, **(Bunker & Kucheria., 2017)** noted in their study that there was a positive relationship between quality of life and marital satisfaction for women.

Conclusion:

The results of this study concluded that nursing educational instruction significantly enhance patients' knowledge and quality of life for the women who underwent abdominoplasty.

Recommendations:

- The research findings suggested that these educational guidelines should be implemented as standard care in the hospital and similar settings.
- Nursing educational instructions contains comprehensive information should be provided for patients undergoing abdominoplasty.
- Conducting the current study with a larger sample would allow for the broader application of the results.

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