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Article

Stress Management for Patient after Sleeve Gastroectomy: Case –Control Study

Ahmed Harbi Mohammed[1], Huda Baker Hassan Jawad[2]

1. Student, College of Nursing, Department of Adult Nursing, University of Baghdad, Iraq
* Correspondence: ahmed.harbi2102p@conursing.uobaghdad.edu.iq
2. Professor, College of Nursing, Department of Adult Nursing, University of Baghdad, Iraq
* Correspondence: dr.huda@conursing.uobaghdad.edu.iq

Abstract: In general, obesity has been increasing at an alarming rate over the past 50 years. In 2022, obesity and its comorbidities accounted for 14.3 percent of this world health care expenditure [1]. A lot of people are uneasy about having bariatric surgery, and they could worry about what might go wrong before, during, or after the procedure. The World Health Organization (WHO) reports that between 266 and 360 million surgeries take place globally year. Studies show that over 75% of individuals have stress [2]. This research to determine the impact of the rehabilitation program on the stress levels of patients following sleeve gastrostomy, to find out the relationship between patient's stress status and demographic characteristics (age, sex, level of education, and marital state). The current study was carried out using a quasi-experimental design, (two groups comparison), the study was conducted in center of hepatopathy and digestive diseases in AL-Hussein Teaching Hospital at AL-Muthanna city in Iraq. Study Sample: A non-probability (purposive) sample was taken from patients who performed gastric sleeve and the sample was (50) patients. Use questionnaire in this study. After the program was implemented, it was discovered that the case group had improved compared to the control group on the post-test. The patient stress after sleeve gastrectomy was high stress. The program which implemented on patients had a benefit feedback on patients.

Keywords: Stress, Sleeve Gastroectomy, Stress Management

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1. Introduction

The stress reaction is the body's way of telling you when something has to be done or attended to. Any kind of change that puts strain on one's body, mind, or emotions is referred to as stress. Although stress affects everyone to some extent, it has a significant negative impact on general wellbeing [3]. Both short-term and long-term stress can cause a wide range of symptoms, but chronic stress can cause long-term health problems and serious physical harm over time. These effects can include mood swings, decreased sex drive, diarrhea, trouble sleeping, digestive issues, low energy, muscle tension (particularly in the shoulders and neck), palpitations, an irregular heartbeat, nausea, nervous stomach, shortness of breath, and sleep difficulties. Surgical stress can start as early as the procedure's planning stages, peak the day of the operation, and continue throughout the recovery phase [4, 5]. There are certain physiological, cognitive, and emotional reactions that might occur throughout the weight loss phase [6]. The primary sources of anxiety about sleeve gastroplasties include concerns about long-term side effects, dangers of general anesthesia, a protracted recovery period, the potential for death, unaffected weight loss, and rebound weight gain [7].

2. Materials and Methods

The Study Design

The design used in this study is a quasi-experimental design (two-group comparison), which was attained through the pre and post-tests method for study sample.

Study Setting

The study was conducted in AL-Hussein Teaching Hospital at AL-Muthanna city in Iraq.

Study Sample

A non-probability (purposive) sample was taken from patients who performed sleeve gastrectomy surgery was (50) patients (control group 25 patient and case group 25patien).

Study Instrument

The effect of stress on daily activity was measured by using the Perceived Stress Scale (PSS 2022). The (PSS) contains of 10 items concerning the stress in the last month, which are rate as Never (1), Mostly No (2), Sometimes (3), Often (4), and Always (5) score.

Data Analysis

Use data analysis such as frequencies, percentages, Pearson correlation coefficient test, paired t-test and ANOVA test to measure the stress.

Ethical Consideration

Approval was gained from the Ethics Committee of the College of Nursing. Permission was obtained from AL-Hussein Teaching Hospital, orally and written.

3. Results

Table 1. The study sample's socio-demographic characteristics (Experimental and control group)

Sociodemographic Characteristics		**Case n=25**		**Control n=25**		**Sig**
		F	**%**	**F**	**%**	
Age (years)	20-30	7	28.0	7	28.0	0.58 **NS**
	31-40	9	36.0	11	44.0	
	41-50	5	20.0	4	16.0	
	51 and More	4	16.0	3	12.0	
	Mean ±SD	**37.969±13.499**		**38.350±11.27**		
Sex	Male	14	56.0	14	56.0	0.10 **NS**
	Female	11	44.0	11	44.0	
Education Level	Don't Read and Write	1	4.0	1	4.0	0.09 **NS**
	Read and Write	9	36.0	9	36.0	
	Academic	8	32.0	8	32.0	

	Diploma	5	20.0	5	20.0	
	College and Above	2	8.0	2	8.0	
Marital Status	Single	6	24.0	5	20.0	0.42 **NS**
	Married	12	48.0	15	60.0	
	Widow	4	16.0	3	12.0	
	Divorced	3	12.0	2	8.0	

Table 2. Evaluation of patients' stress at pre and post-test for case and control group

Periods	Scores Ranging	Case Group n=25		Control Group n=25	
		F	%	F	%
Pre-test	Low	0	0	0	0
	Moderate	2	8	3	12
	High Perceived	23	92	22	88
Post-test	Low	11	44	0	0
	Moderate	14	56	6	24
	High Perceived	0	0	19	76

Scores ranging = (0-13 low stress); (14-26 moderate stress); (27-40 high perceived stress).

Table 3. Relationship between the patients' stress after sleeve gastrectomy and their age, sex, level of education, and marital status

Variables		Sum of Squares	Df	Mean Square	F	Sig. P≤0.05
Age	Between Groups	20.457	3	6.819	0.127	0.943 **NS**
	Within Groups	1123.303	21	53.491		
	Total	1143.760	24			
Level of Education	Between Groups	266.746	4	66.686	1.521	0.234 **NS**
	Within Groups	877.014	20	43.851		
	Total	1143.760	24			
Marital Status	Between Groups	170.860	3	56.953	1.229	0.324 **NS**
	Within Groups	972.900	21	46.329		
	Total	1143.760	24			

S=Sig ≤0.05, HS= high sig≤ 0.01, NS=non-sig>0.05

Sex	N	Mean	Std. Deviation	t-value	d.f.	P-Value
Male	14	96.35	8.289	0.227	23	0.823 **NS**
Female	11	97.00	4.979			

4. Discussion

The results were revealed that (36%) of case group and (44%) of control group at age (31-40) years old. Al-Hamad and Hassan (2019), in study conducted about program to

change people with PUD lifestyle found largest percentage of the participants were over 30 years age [8].

The finding of the present study shows that (56%) of the study sample are females more than males in case and control groups Ali and Kadhim (2023), regarding gender, the majority of the study group (60%) was female [9]. The level of education included in the present study was education (36%) of case and control groups read and write, Heymsfield and Wadden, (2017) evaluate of 112 patients in types and causes of bariatric surgery, at Debra Tabor General Hospital, northwest Ethiopia. Their results showed that more than half of the participants did not get the bachelor's degree (54.85%). According to the marital status, most of the samples in present study were 48%, 60% of case and control groups respectively married.

Mohammed and Abdulwahid (2022) found in their study, a marred people were the highest percentage (29.2%), followed by those who are separated (25%), followed by those who are divorced and widower (20.8%) [10]. Finding of this study Table 2: Showed the overall assessment of patients after sleeve gastrectomy regarding stress management at pre and posttest for the case and control group, which appear 92% of case group and 88% of control group with high stress at pretest, while decreased to moderate and low stress (56% and 44%) at posttest in case group, while remained (76%) with high stress at posttest in control group.

De Souza et al., (2019) study the effectiveness of instruction program about management of stress after bariatric surgery at Surgical Ward, University Kebangsan Malaysia Medical Centre for 40 respondents, the researcher finds the program have positive effective on patient after program [11]. Table 3 shows that there were no significant statistical association between the patients' stress and patient age, sex, level of education, and marital status. These results are agreed with the results of the study of Mokabel et al., (2021), done in Saudi Arabia, and showed that non-significant difference between the stress and demographic catachrestic [12], despite the fact that, Al-Jubouri, et al (2021), found in their study recitation of quran and music to reduce chemotherapy-induced anxiety among adult patients with cancer age, gender, educational level and marital status did not play significant roles [13]. Bett (2019) has found that participant of his study had good association that confronted with what researcher found in this study [14].

5. Conclusion

1. Management of stress significantly corrected.
2. Age, six, level of education and marital status of patients do not significantly affect their stress.

6. Recommendation

1. Provide patient way to control stress after sleeve gastrectomy.
2. Providing booklets for patient related to stress after sleeve gastrectomy.
3. Due to a lack of studies on sleeve gastrectomy in Iraq, the researcher suggested more research.

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