Assessment of Nurses' Knowledge toward Sleeve Gastrectomy in Surgical Unit at Al-Najaf Al-Ashraf Governorate

Hadeel Abbass Wadi Al-Azawi[1], Dergham Majjed Hameed[2]

[1]Research Scholar, Department of Adults Nursing / Faculty of Nursing/ University of Kufa, Iraq, [2]Professor, University of Al-Muthanna, College of Nursing, Muthanna, Iraq

Abstract

A sleeve gastrectomy is a life changing surgery which used for helping patients who are severing from obesity (BMI 40+ or BMI 35+ with other health problems) for losing weight and enhance their health weight loss help to less the risk for development medical conditions related to obesity as high blood pressure, D.M, arthritis, respiration problems), the sleeve gastrectomy operation makes stomach small to change the amount of meals, and it helps to losing weight. This study aims to assess nurses' knowledge toward quantification sleeve gastrostomy in surgical unit and to identify the relationship between nurses' knowledge about quantification sleeve gastrostomy and their sociodemographic data in surgical unit. A quantitative descriptive design is used in the present study to perform objectives. A purposive sampling method; 40 nurses distributed on hospitals in surgical units, the data collection used through constructed questions divided to demographic data and nurses' knowledge, and data analyzed by descriptive analysis and an Inferential analysis. Nurses' knowledge about sleeve gastrostomy was ranging between poor to moderate, and as general the total score of nurses' knowledge was poor and no significant association between nurses' knowledge and their demographic characteristics.

Keywords: *sleeve gastrectomy, surgery, obesity, losing, weight,*

Introduction

Obesity is a rapidly growing health issue and is likely to represent a significant financial burden to the public healthcare system in most countries morbid obesity is considered the most serious stage of the disease, with a population prevalence of six to eight percent in the U.S management of morbid obesity through lifestyle, pharmacological, or surgical interventions has been described in the literature [(1)] . Obesity, identified as a 30 level or higher body mass index (BMI), was correlated with comorbidities such as D.M, disruptive sleep apnea, cardiac disease and dyslipidemia, and increased occurrence of certain cancers [(2)] .

Diet and exercise themed management require significant discipline and many morbidly obese individuals may find it difficult to instigate and maintain a consistent regimen pharmacologic therapy offers a possible adjunct when weight loss is not achieved through diet and exercise alone; however, its impact is modest and is limited by side effects, contraindications, and compliance rates [(3)] .

Surgical intervention traditionally is recommended only as medically necessary. It acts as an ancillary measure when patients who his body mass index (BMI) at ≥40 kg/m^2 or with body mass index ≥35 kg/m^2 with obesity assess with comorbidities fail diet, drug therapy and exercise, which bariatric surgery provides a durable and effective way of treating morbid obesity and related diseases, and the demanding of operation is growing nationwide[(4)] . Given that demanding of bariatric procedure increases as expected, strategies require to implement aims to optimizing perioperative care; to ensure efficiency and optimize outcomes the Metabolic and Bariatric procedure Accreditation and Quality Improvement Program, which joint program of the American College of Surgeons and the American Society for Metabolic and Bariatric operation, is the only nationally validated outcomes-based program to measure and compare the quality and safety for metabolic and bariatric surgical care in the U.S and Canada in 2016, the ACS and ASMBS published its updated MBSAQIP

Standards for best care of the metabolic and bariatric operation patient.

The Standards offer a nationally reliable and constant set of measures of safety and quality for a system in bariatric surgery care throughout the perioperative period under the Standards, both the ACS and ASMBS require established perioperative protocols that facilitate standardization of care related to the bariatric surgical procedure also, the ACS and ASMBS require the use of comprehensive protocols that outline the continuum of care of the bariatric surgery patient protocols are formal pathways that integrate evidence-based recommendations and algorithms for a specific patient population with a predictable clinical course. (5)

Protocols might be particularly helpful in bariatric surgery because they can define, optimize, and sequence different tasks performed by members of the multidisciplinary team the multidisciplinary team includes surgeons, anesthesiologists, nurses, psychologists, dietitians, and medical subspecialties as clinically indicated the implementation of protocols for use in the perioperative care had been related to improving outcomes in bariatric surgery patient and significant savings to the health-care system (6) .

Method and Material

The Study Design: A quantitative descriptive design is used in the present study to perform objectives. The (non-probability) purposive sampling method; the number of forms was with a generic form, 40 nurses' forms distributed on hospitals in surgical units

The Study Setting: The present study carries out in Al-Najaf Al-Ashraf City/ Al-Hakeem hospital, Al-Sadder Medical City, Iraqi specialist center, Al-Hayat national hospitals, Al-Najaf national hospital, and Al-Ameer . The Present part is comprised of (9) items, include: (gender, age, marital status, residency, occupational status, type of housing whether owned or rented monthly income, number of family members, level of educational, experience years in nursing filed, number of years' experience within the surgical unit and have you participated in obesity care courses after gastric sleeve surgery. Part two: nurses' knowledge includes general information about gastric sleeve comprises of (11) items, nursing care before gastric sleeve (8) items, nursing care after gastric sleeve (15) items, and complications (16) items as in appendix.

Statistical Analysis

The data was investigated with statistical processes and using the SPSS (Statistical Process for Social Sciences) version 23 application statistical analysis coordination .

Results

Table (1) Distribution of the Study Samples by Socio-Demographic Characteristics:

Items	Sub-groups	Study group Total = 40	
		Frequency	Percentage
Age / Years	21-27	11	27.5
	28-34	16	40.0
	35-42	5	12.5
	43-49	4	10.0
	50-56	4	10.0
Gender	Female	28	70
	Male	12	30

Cont... **Table (1) Distribution of the Study Samples by Socio-Demographic Characteristics:**

Marital Status	Single	18	45
	Married	20	50
	Widowed	1	2.5
	Divorced	1	2.5
Residency	Urban	38	95.0
	Rural	2	5.0
Levels of Education	Nursing School	12	30.0
	Nursing Institute	15	37.5
	Faculty of Nursing	13	32.5
	Postgraduate	0	0.0
Monthly Income (IQD)	Sufficient	9	22.5
	Sufficient to some extent	25	62.5
	Insufficient	6	15.0
Type of Hospital	Government	28	70.0
	Private	12	30.0
Year of Experience in Nursing	1-10	34	85.0
	11-20	4	10.0
	21-30	2	5.0
Year of Experience in Surgery Ward	1-9	35	87.5
	10-18	5	12.5
Training Courses	Yes	9	22.5
	No	31	77.5
No. of Courses	0	31	77.5
	1	5	12.5
	≤ 2	4	10

Table (1) show descriptive statistics (frequency and percentage) for nurses, it explains that the majority of the nurses subgroup are : nurses with ages between (24-34) years old (40 %), female nurses (70%), married nurses (50%), those who live urban residents (95%), nurses graduated from institute of nursing (37.5%), those with sufficient to some extent monthly income (62.5%), those with (1-10) years of experience in nursing (85%), those with (1-9) years of experience in surgery (87.5%), those with no training courses (77.5%) .

Table (2): Assessment and Mean of Scores for the Domain of Nurses' Knowledge about Sleeve Gastrectomy and Overall Assessment for Nurses' Knowledge about Sleeve Gastrectomy:

Domains	Mean of Score	RS	Assessment
General Knowledge	1.58	52.50	Poor
Nursing Care before Sleeve Gastrectomy	1.19	39.79	Poor
Nursing Care after Sleeve Gastrectomy	1.36	45.33	Poor
Complications	1.58	52.50	Poor
Total Score	1.43	47.53	Poor

F.=frequency. % = percentage Mean of score (poor=1–1.66 moderate=1.67 –2.32 high=2.33– 3) Relative sufficiency (poor =33.33-55.54 moderate =55.55- 77.76 high =77.77- 100)

Table (2) is about assessment and mean of scores for the domain of nurses' knowledge about sleeve gastroctomy, it shows that the assessment of nurses' knowledge is (poor) for the all four domains **.**

Table (3) is about overall assessment for nurses' knowledge about sleeve gastroctomy, it shows that the overall assessment for nurses' knowledge is (poor) with a mean of score (1.43) .

According to the tables (4) , there is no significant correlation between overall assessment of nurses knowledge about sleeve gastrectomy and their demographic data (P>0.05) .

Table (3): Frequency and percentage of nurses' subgroups according to their knowledge assessment about sleeve gastrectomy:

Nurses' subgroups	Poor	Moderate	Good
Frequency	37	3	0
Percentage	92.5	7.5	0

Table (4): Correlation between Overall Assessment of Nurses' Knowledge and Socio-Demographic characteristics

Demographic characteristics	Chi-Square	Contingency Coefficient	Significance p-value
Age	1.08	0.16	0.58
Gender	0.02	0.02	0.89
No. of Family Members	0.28	0.03	0.87
Residence	0.17	0.06	0.67
Marital Status	0.68	0.13	0.87
Educational Status	2.39	0.24	0.3

Cont... **Table (4): Correlation between Overall Assessment of Nurses' Knowledge and Socio-Demographic characteristics**

Types of Dwelling	0.94	0.15	0.33
Monthly Income	4.27	0.31	0.23
Type of Hospital	3.25	0.42	0.28
Years of experience in nursing	0.57	0.02	0.75
Years of experience in surgery	0.36	0.09	0.54
Training Courses	0.22	0.07	0.64
No. of Courses	0.94	0.15	0.62

Discussion

Table (1), shows and explains that the majority of the nurse's subgroup are: nurses with ages between (28-34) years old (40 %)this result nearly to result of study done by Hameed in (2012), he explained the most of the nurses (36.8%) are between the ages (22-27) years[7] , female nurses (70%), married nurses (50%) the present study demonstration married nurses 50% , the same results obtained by Griauzde et al., 2018 [8] . In United Kingdom and Twells et al.,2017 [9]. In Canada this tow study is similar to the present study found married nurses same result, those who live urban residents (95%), nurses graduated from institute of nursing (37.5%), those with a monthly income of (700-849) IQD (32.5%), those with (2-6) members of the family (55%), those that are owners of their houses (77.5%), those with (1-10) years of experience in nursing (85%), those with (1-9) years of experience in surgery (87.5%), those with no training courses (77.5%).

Table (2) is about Assessment and mean of scores for the domain of nurses' knowledge about sleeve gastrectomy; it shows that the Assessment of nurses' knowledge is (poor) for the all four domains and overall Assessment for nurses' knowledge about sleeve gastrectomy, it shows that the overall Assessment for nurses' knowledge is (poor) with a mean of the score (1.43). The present study shows questions about weight loss during 12 months by 65%, uncertain 25 (62.5%) assessment was moderate and mean of scores 1.75. This study resembles with results obtained in America by (Sharpton et al., 2019) and (Philouze et al., 2017). Because losing weight during this period is different because it follows each person's commitment [10,11].

The present study shows about, general knowledge, mean of scores 1.58, assessment was poor. This study is similar with results obtained in Russia by (Kirkil et al., 2018) [12] , but disagree with study in Franc by (Pizzorno, 2016) [13]. table (2)

In table (3) more than 92% of sample have poor knowledge about sleeve gastrectomy, the correlation between overall assessment of nurses' knowledge and demographic data. According to the Tables (4), there is no significant correlation between overall assessment of nurses' knowledge about sleeve gastrectomy and their demographic data (P>0.05). This study is agreeing with results obtained in India by. [14] but disagrees with study in America by.[15] Most of nurses don't have good knowledge about gastrectomy because this operation is considered new method in Iraq to decrease the weight and most of nurses don't read about this operation in there study program, that is mean all of nurses equal to have bad knowledge, for this reason association cannot be found between overall assessment of nurses knowledge about sleeve gastrectomy and their demographic data between overall assessment of nurses knowledge about sleeve gastrostomy and their demographic data, this result agree with Hameed (2006), he pointed no significant correlation between overall assessment of nurses' knowledge and their demographic data[16]

Conclusions

The age mean of nurses was (29.78) years and

ranging from (28-34) years them (40 %), most of them were female, half of the nurses were married, more than one-third of theme graduated from the nursing institute, most of the samples had employment in nursing from (1-10) years, and most of the samples study hadn't training sessions. Nurses' knowledge about sleeve gastrostomy was ranging between poor to moderate, and as general the total score of nurses' knowledge was poor in all dominos (general knowledge, pre sleeve gastrectomy, post sleeve gastrectomy, and complications related sleeve gastrectomy) and 3-There is no significant association between nurses' knowledge and their demographic characteristics. Special training and education programs should be designed and constructed for nurses in this surgical ward to reinforce their knowledge. 2-Publishing booklets for nurses related to pre and post sleeve gastrectomy. 3-Establishing a continuing education unit in surgical ward to improve the nurses' knowledge regarding sleeve gastrectomy.

Ethical Clearance: Taken from University of Kufa ethical committee

Source of Funding: Self

Conflict of Interest: Nil

References

[1] Behary, J., & Kumbhari, V., Advances in the endoscopic management of obesity. Gastroenterology Research and Practice. 2015 ; 2015 : 9 .

[2] Brunton, A., Skolnik, S., Ryan, H., et al. Management of obesity in adults. J Fam Pract. 2014 ; 63 : S1-S2 .

[3] Schroeder, D., Harrison, and McGraw, L., "Treatment of adult obesity with bariatric surgery," American Family Physician. 2016 ; 93(1) : 31-37,.

[4] Courcoulas, P., Yanovski, Z., Bonds, D., Eggerman, L., Horlick, M., Staten, A., & Arterburn , E., Long-term outcomes of bariatric surgery: a National Institutes of Health Symposium. JAMA Surgery. 2014 ; 149(12) : 1323-1329 .

[5] Serrano, K., Tannebaum, E., Cumella, L., Choi, J., Vemulapalli, P., Scott Melvin, W., & Camacho, R., Weight loss outcomes and complications from bariatric surgery in the super super obese. Surgical Endoscopy. 2015 ; 30(6) : 2505-2511 .

[6] El Chaar, M., Claros, L., Ezeji, C., Miletics, M., & Stoltzfus, J. , Improving outcome of bariatric surgery: best practices in an accredited Surgical Center. Obesity Surgery. 2014 ; 24(7) : 1057-1063 .

[7] Al-Ftlawy DM. Determination of Nurses' knowledge Toward CareProvided to Patients with Acute Myocardial Infarction inAl-Najaf City. kufa Journal for Nursing sciences. 2012; 2(2) : 1-1.

[8] Griauzde DH, Ibrahim AM, Fisher N, Stricklen A, Ross R, Ghaferi AA. Understanding the psychosocial impact of weight loss following bariatric surgery: a qualitative study. BMC Obes. 2018 ; 5 : 38.

[9] Twells LK, Driscoll S, Gregory DM, Lester K, Fardy JM, Pace D. Morbidity and health-related quality of life of patients accessing laparoscopic sleeve gastrectomy: a single-centre cross-sectional study in one province of Canada. BMC Obes. 2017; 4 : 40.

[10] Sharpton SR, Terrault NA, Posselt AM. Outcomes of Sleeve Gastrectomy in Obese Liver Transplant Candidates. Liver Transpl. 2019 ; 25(4) : 538-544.

[11] Philouze G, Voitellier E, Lacaze L, Huet, E. , Gancel, A. , Prévost, G. , Bubenheim, M. and Scotté, M. Excess Body Mass Index Loss at 3 Months: A Predictive Factor of Long-Term Result after Sleeve Gastrectomy. J Obes. 2017; 2017: 7 .

[12] Kirkil C, Aygen E, Korkmaz MF, Bozan MB. Quality Of Life After Laparoscopic Sleeve Gastrectomy Using Baros System. Arq Bras Cir Dig. 2018;31(3):e1385. Published 2018 Aug 16. doi:10.1590/0102-672020180001e1385.

[13] Pizzorno L. Bariatric Surgery: Bad to the Bone, Part 2. Integr Med (Encinitas). 2016; 15(2) : 35-46.

[14] Sharma P, McCarty TR, Ngu JN, O'Donnell M, Njei B. Impact of bariatric surgery in patients with HIV infection: a nationwide inpatient sample analysis, 2004-2014. AIDS. 2018; 32(14) : 1959-1965.

[15] Gill RS, Majumdar SR, Rueda-Clausen CF, et al. Comparative effectiveness and safety of gastric bypass, sleeve gastrectomy and adjustable gastric banding in a population-based bariatric program: prospective cohort study. Can J Surg. 2016; 59(4)

: 233-241.

[16] Hameed AF. Effectiveness of an educational program upon nurses' knowledge about complications in peritoneal dialysis units, unpublished doctoral dissertation. Baghdad University. 2006 :129-3.