



University of Basrah

College of Nursing

Nurses' Knowledge toward Sleeve Gastrectomy in Al-Basra City

A Research Project

By

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In the Partial Fulfillment of the Requirements for the

Degree of Bachelor in Nursing Science

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April 2022 AD

Ramadan, 1442 H

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا^ط
إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ)

صدق الله العلي العظيم

سورة البقرة الآية (32)

Supervisor Certification

I certify that this research project (Nurses' Knowledge and toward Sleeve Gastrectomy in Al-Basrah City) was prepared under my supervision at the College of Nursing, University of Basrah, as partial fulfillment of the requirement for a baccalaureate in nursing science.

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2021-2022

Dedications

أرى مسيرتي الجامعية قد انتهت اليوم بالفعل, من بعد مشقة وجهد لوقت طويل

وها انا اليوم أختم بحث تخرجي بكل ما لدي من همة ونشاط

وبداخلي الكثير من التقدير والامتنان لكل شخص قدم لي المساعدة, لكم أمي

وأبي, أصدقائي و أساتذتي المجلين.

Acknowledgments

Firstly, I wish to praise **Allah (the Great and Almighty)** for giving me the ability to do and complete this project.

A lot of thanks are presented to the dean of the College of Nursing/University of Basrah (Prof. Dr. **Abdulameer A. Al-Mussawi**).

Special thanks to my supervisor (**Lecturer Farhan Laith**) for his guidance, scientific assistance, and encouragement throughout the study.

Abstract

Background: Sleeve gastrectomy is considered an efficient and permanent for losing weight strategy in several patients. A gastrectomy procedure may be a suitable loss weight choice for patients with a BMI greater than 40 kg/m², so those with BMI between 35- 40 who have acquired obesity-related diseases and those who have not been active in weight loss due to weight loss to additional weight loss strategies.

Objectives: To assess the level of nurses' knowledge about sleeve gastrectomy. And To find the relationship between nurses' knowledge about sleeve gastrectomy and their demographic characteristics (age, gender, marital status, level of education, and years of experience).

Methodology: A descriptive study on nurses' knowledge toward sleeve gastrectomy in (Al-Sader Teaching Hospital, Al-Faiha Teaching Hospital, Al-Basrah Teaching Hospital, and Al-Mawani Teaching Hospital) in Al-Basrah Governorate. The study period was extended from the 25th of November 2021 to the 10th of April 2022. Purposive (non-probability) sample of (100) nurses. To determine the content validity of the study, (10) experts were selected to review the questionnaire. The reliability of the questionnaire is determined by using the Cronbach's Alpha test.

Results: This study showed that (71%) of studied nurses had poor knowledge about sleeve gastrectomy, (13%) of nurses had moderate knowledge, and (16%) of nurses had good knowledge.

Conclusions: The present study concluded that the nurses have poor knowledge about sleeve gastrectomy.

Recommendations: The researcher recommends special training courses to all nursing staff about sleeve gastrectomy, complications of sleeve gastrectomy, and postoperative nursing care for patients with sleeve gastrectomy.

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List of Abbreviations	
Terms	Meanings
ALT	Alanine aminotransferase
AST	Aspartate aminotransferase
BPD-DS	Biliopancreatic Diversion With Duodenal Switch
BMI	Body Mass Index
BUN	Blood Urea Nitrogen
CDVs	Cardiovascular Diseases
CKD	Chronic Kidney Disease
CBC	Complete Blood Count
CAD	Coronary Artery Disease
DM	Diabetes Mellitus
ECG	Electrocardiogram
Et. al.	And Others
HF	Heart Failure
HIV	Human Immunodeficiency Virus
HTN	Hypertension
IV	Intravenous
LAGB	Laparoscopic Adjustable Gastric Band
LRYGB	Laparoscopic Roux-en-Y gastric bypass
LSG	Laparoscopic Sleeve Gastrectomy
NHANES	National Center for Health Statistics' National Health and Nutrition Examination Survey
NAFLD	Nonalcoholic Fatty Liver Disease
NBO	Nothing by Mouth
NSAIDs	Non-Steroidal Anti-inflammatory Drugs
OSA	Obstructive Sleep Apnea
PCA	Patient Controlled Analgesia
SDB	Sleep-Disordered Breathing
SPSS	Statistical Package for Social Science Program
US	United States
VTE	Venous Thromboembolism
WHO	World Health Organization

Chapter One

Introduction

Chapter One**Introduction****1.1. Introduction**

Obesity refers to body fat accumulation and abnormal distribution caused by several causes, such as heredity, high-calorie, high-fat diet, and absence of physical activity (Nimptsch et al., 2019).

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 United States (Behary and Kumbhari, 2015). Obesity, known as a 30 kg/m^2 or higher body mass index (BMI), was correlated with comorbidities such as diabetes mellitus, obstructive sleep apnea, heart disease, dyslipidemia, and increased occurrence of certain cancers (Brunton et al., 2014).

When the body mass index of an individual is 30 kg/m^2 or higher, the term obesity is used. This number is obtained by dividing body weight in kilograms by height in meters squared (Linton, 2016).

Obesity has a genetic origin and is often attributed to lifestyle, with central and environmental variables. The increased prevalence of this complication in recent years is caused by lifestyle-related variables such as diet, socio-cultural issues, and physical activity (Makhdoumi et al., 2013).

Diet and exercise-themed management require significant discipline. 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 (Schroeder et al., 2016).

Surgical intervention is traditionally recommended only as medically necessary. It acts as an ancillary measure when patients with body mass index (BMI) ≥ 40 kg/m² or with body mass index ≥ 35 kg/m² with obesity assessed 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 demand for operation is growing nationwide (Courcoulas et al., 2014).

Bariatric surgery is an effective treatment for extreme obesity that leads to the improvement and remission of multiple comorbidities associated with obesity, sustained weight loss over time, quality of life improvement, and prolonged survival (Mingrone et al., 2015).

Sleeve gastrectomy involves cutting about 80% of the stomach along its greater curvature, leaving a tube-like stomach residue and leaving the remainder of the intestine intact (Ponce et al., 2016).

In the United States (US) and internationally, sleeve gastrectomy is the most commonly performed bariatric surgery. Adjustable gastric banding was approved in the United States in 2001, but following the development of sleeve gastrectomy, its use has gradually decreased (Valera and Nguyen, 2015). Finally, biliopancreatic diversion with duodenal switch (BPD-DS) is conducted in only a few patients. It accounts for less than one percent of the United States bariatric procedures (Ponce et al., 2015).

The mortality rate for bariatric operations is low, but the possibility of postoperative complications is high; potential postoperative complications include anastomosis leak with peritonitis, wound infections, abdominal wall

hernia, deep venous thrombosis, gallstones, hemorrhage, gastrointestinal symptoms, and dietary deficiency (Lemone et al., 2017).

1.2. Importance of the Study

In both economically stable and emerging areas of the world, obesity has been one of the most critical public health issues. About 1.9 billion people were overweight globally in 2016, and of these, more than 650 million were obese, a figure that has tripled since the 1970s. If the rate continues to grow, it is projected that by 2025, about one-third of the world's adult population will be overweight. Over 1 billion will be obese (World Health Organization [WHO], 2019) and up to 57.8% of the adult population of the planet (3.3 billion people) will be either overweight or obese by 2030 (Forse et al., 2020).

In 2015-2016, according to the National Center for Health Statistics' National Health and Nutrition Examination Survey (NHANES), the prevalence of obesity in the United States was 39.8 percent, affecting about 93.3 million people. From 1999 to 2016, the number of obese Americans has significantly increased (Hales et al., 2018).

Every second, an extra 2.5 individuals are added to the global population, and one of them would be obese or overweight. In the US, 39.8 percent of the adult population is obese (Hales et al., 2017).

In the Eastern Mediterranean region, the prevalence of overweight and obesity ranges from 74% to 86% in women and 69% to 77% in men (Al-Daydamouni, 2019); in Iraq alone, about 23.6 million are obese, accounting for 65.6% of the adult population (Chooi et al., 2019).

There were nearly 252,000 bariatric operations performed in the United States each year as of 2018. About 61% of primary bariatric operations are sleeve gastrectomy, 17% are Roux-en-Y gastric bypass procedures, 15.4% are

revision surgeries, and 4.3% others. Less than 2 percent of adjustable gastric banding and biliopancreatic diversion procedures (Arterburn et al., 2020).

Improvement in chronic disorders (comorbidities) apart from diabetes mellitus, laparoscopic sleeve gastrectomy (LSG) provides improvement. Even resolution for a range of comorbidities in several types of research report improvement or reduction of obstructive sleep apnea, dyslipidemia, hypertension, and progressive joint disease after LSG reported that hypertension was enhanced or resolved in 97% of cases, while enhanced in 77 percent of long-term cases reported. Hypertension resolution in half of the cases undergoing LSG obstructive sleep apnea, typically seen in morbidly obese cases, may also be enhanced in 80 percent of patients after surgical management (Brunault et al .,2015).

Enhancement in quality of life by LSG findings significant improvement in the quality of life and psychosocial functioning first and primary. Safety food bariatric surgery pills are commonly well-tolerated, and medications such as aspirin and NSAIDs. Food tolerance is very good, particularly in the long term; the majority of cases show high Postoperative satisfaction rates, and a large number of them shift their eating habits to a healthy diet over time, as well as postoperative progress due to rapid recovery and sufficient weight loss, physical activity, sexual life, and self-esteem (Charalamp et al., 2015).

Sleeve gastrectomy is considered one of the modern methods of treating many conditions. In addition to that, a gastric sleeve is used a lot, especially in cases of excessive obesity. For this reason, the researcher considered the subject of the gastric sleeve to be one of the topics that must be studied in detail. In Iraq, all dimensions (knowledge and skill) must be studied. Limited research and literature about sleeve gastrectomy.

The task of bariatric nurses is to guarantee the patient's organized treatment while in the hospital. It is important for the safe and efficient care of the bariatric patient and the avoidance of caregiver accidents to coordinate with the supporting personnel, ensure the provision of suitable services and qualified staff to care for bariatric surgical patients (Puplampu and Simpson, 2016).

A nurse plays a vital role in the treatment and care of patients, in their preparation for surgery, in teaching patients about possible complications after surgery, and in preparing for discharge (Akkayaoğlu and Çelik, 2020). This increase in bariatric surgery, especially sleeve gastrectomy, requires nurses to have sufficient knowledge to provide high-quality nursing care essential to achieving good patient outcomes and reducing complications.

1.3. Statement of the problem

Nurses' Knowledge toward Sleeve Gastrectomy in Al-Basra City.

1.4. Objectives of the Study

- 1- To assess the level of nurses' knowledge about sleeve gastrectomy.
- 2- To find the relationship between nurses' knowledge about sleeve gastrectomy and their demographic characteristics (age, gender, marital status, level of education, and years of experience).

1.5. Definitions of Terms

1.5.1. Nurse

1.5.1. a. Theoretical definition:

A qualified individual with advanced information and skills promotes wellness and gives services to persons with each health and disease in several places for practice (Hamza & Hakeim, 2016).

1.5.1. b. Operational definition:

He is a professional and trained person who cares for sleeve gastrectomy patients.

1.5.2. Knowledge**1.5.2. a. Theoretical definition:**

Knowledge, comprehension, or abilities gained by experience or schooling. The truth or conditions of facts familiarly attained accomplished under the framework of practice (Al-Asadi & Al-Tae, 2016).

1.5.2. b. Operational definition:

Nurses' information about sleeve gastrectomy, its complications, and pre and post-operative nursing care.

1.5.3. Sleeve Gastrectomy**1.5.3. a. Theoretical definition:**

Is it an operation for losing weight? The stomach is decreased to about 15 percent of its original volume by surgical removal of a large part of the stomach and more curvature, resulting in a sleeve or tube-like structure that permanently reduces the size of the stomach. In contrast, some dilatation of the stomach may occur later in life. The operation is normally done laparoscopically and is permanent (Chung et al., 2018)

1.5.3. a. Operational definition:

It is a surgery used for weight-loss procedures in which the stomach is reduced from the original size by surgical removal of a large portion of the stomach.

Chapter Two

Review of Literature

Chapter Two**Review of Literatures****2.1. History of Sleeve Gastrectomy**

The history of bariatric surgery may be traced back to the 1950s. Still, its procedure remained unknown until obesity became a recognized epidemic condition of life-threatening comorbidities such as diabetes, sleep apnea, asthma, venous stasis, and dyslipidemia (Sjöström et al., 2007).

The novel Laparoscopic Sleeve Gastrectomy (LSG). It is a purely restrictive operation designed to reduce total gastric reservoir volume/capacity, limiting caloric intake by promoting early satiety. SG was first described in 1988 by Douglas Hess, MD, and again in 1990 by Picard Marceau, MD, as a first step to the duodenal switch procedure. As an extension of the Magenstrasse and Mill gastropasty in 1998, the first experience of the open technique of SG was performed. In 1999, the first laparoscopic duodenal switch (DS) with SG was performed in a porcine model. A feasibility study between the latter and the open approach occurred (Verger et al., 2016).

A 40-French bougie was first used, but the size was reduced to a 32-French bougie due to unsatisfactory weight loss, leading to a larger excess weight loss at 5.9 years (Sieber et al., 2014). A narrow sleeve can raise the risk of serious complications, and one of the controversial issues leading to the low standardization of the technique is the chosen bougie size (Victorzon, 2012). The ghrelin hormone level is decreased, and appetite is reduced when the fundus region of the stomach is eliminated. Its popularity is growing, especially in Europe and the US (Buchwald and Oien, 2013).

2.2. Sleeve Gastrectomy

Sleeve gastrectomy is considered an efficient and permanent for losing weight strategy in several patients. A gastrectomy procedure may be a suitable loss weight choice for patients with a BMI greater than 40 kg/m², so those with BMI between 35- 40 who have acquired obesity-related diseases and those who have not been active in weight loss due to weight loss to additional weight loss strategies. The main objective of the gastrectomy procedure is to minimize food consumption by physically reducing the body's total gastric capacity. Gastrectomy operation has been associated with substantial losing weight, decreased certain weight-related comorbidities, and improved quality of life-related elements relative to traditional management (Colquitt et al., 2014).

It is a life-changing surgery intended to help a patient who is extremely obese (BMI 40 + or BMI 35 + and certain health problems) as losing weight and enhancing their weight loss. Also, it will help minimize the likelihood of having obesity-related medical issues (e.g., D.M, hypertension, respiratory difficulties, asthma, and sleeve gastrectomy, which makes it much smaller and may change the amount consumed for meals, which is allowed to lose weight, it is not a reversible operation. Usually, clients are contemplating a sleeve gastrectomy that has already been tested; other non-surgical alternatives are available to help them lose weight during the operation. It is usually done laparoscopically, usually known as a keyhole operation, ensuring that patients are up and about shortly after the operation and make a speedy recovery (Juza et al., 2015).

Sleeve gastrectomy reduces the stomach by about 80% to a banana shape by stacking down the stomach and removing the rest of the stomach; the new stomach will hold up to 200 ml of fluid at any one time, which means that the amount of food you will be able to eat will be much smaller. Will feel full faster;

the smaller stomach still works the same way to optimize weight loss; it is crucial to make long-term dietary and lifestyle adjustments. There is no sense in pursuing this treatment unless there are completely committed to implementing the dietary and lifestyle advice provided (Gagner and Buchwald, 2014).

2.3. Bariatric Surgical Procedures

Surgical bariatric operation techniques are categorized as restrictive and malabsorptive based on the presumed mechanism of losing weight restrictive the operation involves constructing a small gastric pouch limited to the upper the portion of the stomach to restrict food intake and delay gastric emptying to induce early satiety. "Malabsorptive techniques divert biliopancreatic secretions, limiting the absorption of nutrients in the intestine" combined procedures incorporate both restrictive and malabsorptive elements (Arterburn & Courcoulas, 2014).

2.3.1. Laparoscopic Adjustable Gastric Band

The laparoscopic adjustable gastric band procedure is purely restrictive. In the United States, the use of LAGB is less common. The procedure includes placing a synthetic band with an expandable silastic balloon distal to the gastroesophageal junction, resulting in a 20 to 30 ml gastric pouch at the cardia (ASMBS, 2015). The band is inflated with saline solution to form a small stomach pouch with a limited passageway leading to the remainder of the stomach, limiting the amount of food ingested. A port placed underneath the skin can be used to alter the amount of band inflation (Lemone et al., 2017). The restrictive technique of LAGB reduces the gastric volume in the proximal portion of the stomach, causing a delay in gastric emptying. Despite having a

lower morbidity ratio and fewer peri- and postoperative complications, LAGB has a high reoperation rate (ASMBS, 2015).

According to reports, device-related complications can affect up to 48% of morbidly obese people. Band obstruction, wound infection, gastric perforation, and bleeding are among the most often recorded early (within one month of the operation) complications after LAGB. Patients performing LAGB are at risk for band slippage/migration, pouch enlargement, esophageal dilation, gastric erosion, gastric necrosis, port-site infection, port breakage, and tubing complications, in addition to the early postoperative complications of this surgery. Late postoperative complications mentioned above have resulted in inadequate weight loss, secondary weight gain, and revision or conversion to another bariatric procedure, i.e., laparoscopic Roux-en-Y gastric bypass, LSG, and BPD (Manatakis et al., 2014). Adjustable gastric banding is declining due to a marked rise in sleeve gastrectomy procedures performed worldwide (Buchwald et al., 2013).

2.3.2. Biliopancreatic Diversion/Duodenal Switch (BPD/DS)

Scopinaro identified biliopancreatic diversion as an alternative to Jejunoleal Bypass for patients with morbid obesity in 1979. In the BPD, the distal end of the duodenum (duodenal stump) is closed with a partial distal gastrectomy. The original division of the small bowel (small intestine) is a distal transaction between the Treitz ligament and the ileocecal valve about 250 cm from the detached Roux arm, resulting in a gastric pouch (volume of gastric residual 200 to 500 ml) (Ballsmider et al., 2015).

The biliopancreatic limb (duodenum) is bypassed, and the alimentary limb (gastric remnant) is anastomosed to the ileum 50 cm from the ileocecal valve, creating a 50 cm normal duct. In 1986, Dr. Douglas Sterling Hess

changed the protocol with a duodenal turn. (1) “Preservation of the lesser curvature, antrum, pylorus, and [initial section of duodenum]” is the updated procedure. (2) duodenal-ileal anastomosis with vertical, subtotal sleeve gastrectomy and alimentary limb development, and (3) small bowel reconstruction with a typical channel length of 100 cm BPD/DS are successful operations (Ballsmider et al., 2015).

The surgeons perform Biliopancreatic Diversion/Duodenal switch less often than in other operations because the risk of adverse postoperative outcomes is comparatively high. The complexity of the surgery and expert surgical experience and preparation may also play a role in declining patterns in using these procedures (Salehi and D’Alessio, 2014).

For patients with extreme obesity, a biliopancreatic diversion/duodenal switch is normally considered. The permanent surgery is a variant of the biliopancreatic diversion procedure (the original surgery is now rarely performed). The biliopancreatic diversion/duodenal switch procedure entails cutting 65–70% of the stomach while leaving the pyloric valve unchanged. The proximal part of the ileum is then attached to the remaining portion of the intestine. Since digestive enzymes cannot mix with food before it meets the distal ileum, the surgery limits consumption and delays digestion and absorption (Gagnon & Sheff, 2012).

2.3.3. Laparoscopic Roux-en-Y gastric bypass (LRYGB)

The Roux-en-Y gastric bypass, which has a dual limiting and malabsorptive mode of operation, is now the “gold standard” form of weight loss (Coupaye et al., 2015).

Through forming a narrow gastric pouch anatomized to the distal section of the small intestine, the duodenum is added further down the distal section of

the intestines, providing a "Y"-shaped food that bypasses the stomach and also the proximal small intestine, the Roux-en-Y gastric bypass is an irreversible procedure that requires the combination of restricting and malabsorptive mechanisms (Colquitt et al., 2014).

The LRYGB is an irreversible operation that involves LRYGB is effective in achieving substantial, long-term weight loss in morbidly obese people with BMIs ranging from 40.0 kg/m² to 50.0 kg/m² (Verger et al., 2016).

The proximal jejunum is split 5–10 cm distal to the Treitz ligament with a 45-mm linear cutter in LRYGB. A 100-cm limb is chosen for patients with a BMI of less than 50, and a 150-cm limb is chosen for patients with a BMI of more than 50. A 45-mm linear cutter and 2.5-mm stapler are used to do a side-to-side jejunojejunostomy, and the enterotomy is closed with interrupted sutures. Using a 35-mm linear cutter and a 3.5-mm stapler, a 20-mL gastric pouch is formed (ENDOPATH Endoscopic Linear Cutter; Ethicon Endo-Surgery Inc). A normal 2-layer hand-sewn gastrojejunostomy anastomosis is performed along an intraluminal 32 F tube after the Roux limb is pulled up along the retro colic pathway (Yousuf-Guraya & Strate, 2019).

2.4. Reasons for Sleeve Gastrectomy

Obesity is connected with elevated mortality and a heightened risk the factor for comorbidities, comprising (T2DM), major cardiovascular diseases (CVDs), sleep-disordered breathing (SBD), nonalcoholic fatty liver disease, chronic kidney disease (CKD), and certain cancers. Most studies have shown poor health is related to the quality of life by higher grades of obesity with comorbidities in individuals with obesity (Slagter et al., 2015).

2.4.1. Type 2 Diabetes Mellitus

Obesity is the main risk factor for T2DM, a disease characterized by insulin resistance and dysfunction of pancreatic beta β -cells. In the early years, the national incidence of T2DM among adults ≥ 20 years old has increased, reaching 12.3% in 2014, corresponding to 28.9 million. The T2DM prevalence increases substantially with increasing BMI; each 1 kg/m² BMI the increase is associated with approximately 20% higher T2DM risk at a BMI of 27 to 29.5 kg/m², the risk of developing T2DM increases by 100%; for a BMI > 29.4 kg/m², the risk for developing T2DM elevated by 200% risk for mortality is 1.5 times higher in adults with diagnosed D.M type 2 than in those without diagnosed T2DM of similar age (CDC, 2014).

2.4.2. Cardiovascular Disease

Cardiovascular disease (CVD) is a heart and blood vessel disorder that affects an estimated 85.6 million adults in the United States, with 43.7 million over 60 years old. These people have one or more types of CVD, with hypertension, coronary artery disease, stroke, heart failure, and congenital heart defects being among the most common. Even though CVD has decreased in the United States in recent decades, it remains the leading cause of death, with approximately 800,000 deaths per year (Mozaffarian et al., 2015).

2.4.3. Hypertension

Hypertension (HTN) is defined as an elevation of arterial pressure, including patients with a mean resting systolic blood pressure of more than 140 mm Hg, diastolic blood pressure of more than 90 mm Hg, or both HTN is a common medical problem with approximately 29% in the United States elevated levels of arterial blood pressure frequently coexist with obesity. Obese individuals are 3.5 times more likely to have a higher prevalence of

hypertension. Still, they may paradoxically have a lower risk for all-cause, cardiovascular and non-cardiovascular mortality than normal-weight HTN individuals. However, the pathogenesis of obesity-induced HTN is not clear at this time, several hypotheses have been described in the literature the overactive sympathetic nervous system, stimulation of the renin-angiotensin system, abnormal renal sodium handling, and vascular endothelial dysfunction is proposed to be involved in the pathogenesis (Lopaschuk, 2014).

2.4.4. Heart Failure

Obesity is a common contributing factor to developing heart failure (HF) in the general population, potential mechanisms that may lead to the development of heart failure in obese individuals, including increased systemic inflammation, prothrombotic state, increased prevalence of diastolic hypertension, and higher insulin resistance, the probability of HF increases substantially with increasing BMI; each 1 kg/m² BMI increase is associated with approximately 5% higher HF risk in men and 7% in women duration of morbid obesity is also a significant predictor of HF, an association previously described despite the adverse effects of obesity on CV function and data demonstrating a strong association of obesity with HF, many studies have suggested a favorable prognosis for obese HF patients (Maghbooli and Nezhad, 2015).

2.4.5. Coronary Artery Disease

Obesity is the main risk factor for coronary artery disease (CAD). It is primarily characterized by the narrowing or blockage of the coronary arteries resulting from plaque buildup. The mechanisms linking obesity to CAD are not yet certain, but potential mechanisms are abnormal hemostatic and fibrinolytic

changes, oxidative stress, increased proinflammatory cytokines and increased basal sympathetic tone (Akin and Nienaber, 2015).

2.4.6. Obstructive Sleep Apnea (OSA) and Joint Pain

Obstructive sleep apnea is a common sleep-related breathing condition that results in arterial hypoxia and sleeps fragmentation due to nocturnal upper airway obstruction. Obesity, advanced age, and male gender are significant risk factors for OSA (Busetto et al., 2017).

In obese people, joint pain, including lower back pain, is very common, leading to a lack of autonomy (Ponta et al., 2014).

2.4.7. Nonalcoholic Fatty Liver Disease

Non-alcoholic fatty liver disease (NAFLD) is characterized by triglyceride deposition in hepatocytes without alcohol intake. Obesity is a high-risk factor for NAFLD. Non-alcoholic fatty liver disease is a category of illness that ranges from basic steatosis to non-alcoholic steatohepatitis and can progress to cirrhosis or hepatocellular carcinoma over time and is linked to increased mortality. Non-alcoholic fatty liver disease affects 20% to 30% of the population of Western countries and 63 percent to 95 percent of morbidly obese people (De la Cruz et al., 2014).

2.4.8. Cancer

Obesity has been linked to elevated postmenopausal breast, endometrial, ovarian, liver, colon, and pancreatic cancers (Wiggins et al., 2019; Feigelson et al., 2020). According to data from eight observational studies affecting 635,642 patients, bariatric surgery is linked to a lower risk of cancer and obesity-related cancers, including breast cancer (Wiggins et al., 2019; Feigelson et al., 2020).

2.4.9. Kidney

Obesity is one of the risk factors for chronic kidney disease (CKD). It is “associated with age-related renal function decline accelerated in hypertension, diabetes, and obesity and primary renal disorders” Incidence of CKD has been increasing in parallel with the incidence of obesity; the prevalence of CKD in the U.S has risen from 12% in 1988 to 1994 to 14% in 1994 to 2004. Still, it has remained relatively stable since the “ National Institute of Diabetes and Digestive and Kidney Diseases," 2016 data demonstrate that elevated BMI and waist circumference may increase the incidence of CKD individuals with CKD has a 59% higher mortality rate than non-CKD individuals; mechanisms whereby obesity directly affects kidney disease include elevated glomerular capillary wall pressure, hyperfiltration, and podocyte stress (Hill et al., 2016).

2.5. Indications (Criteria) of Sleeve Gastrectomy

1. A BMI of more than or equal to 40 kg/m² without high surgical risk.
2. Patients with a BMI of more than or equal to 35 kg/m² and at least one extreme obesity-related condition.
3. Obesity-related condition (obstructive sleep apnea, asthma, obesity hypoventilation syndrome, non-alcoholic fatty liver disease, hyperlipidemia, hypertension, diabetes, debilitating arthritis, or a significantly reduced quality of life).
4. Patients with type 2 diabetes or metabolic syndrome have a BMI of more than or equal to 30 kg/m².
5. Ability to carry out normal tasks and self-care.
6. The presence of a family and friend support system.

7. Previous unsuccessful non-surgical weight loss efforts, including nonprofessional services.
8. Expected patient compliance with postoperative treatment, follow-up appointments, and medical management recommendations, including the use of dietary supplements (Honan, 2019).

2.6. Contraindications of Sleeve Gastrectomy

1. Obesity may be caused by reversible endocrine or other diseases.
2. Currently abusing drugs or drinking alcohol.
3. Extreme mental disorder that is uncontrollable.
4. Inadequate understanding of the complications, advantages, anticipated consequences, options, and behavioral changes that bariatric surgery entails (Honan, 2019).

2.7. Complications of Sleeve Gastrectomy

During the early postoperative period, abdominal pain, wound infection, gastrointestinal bleeding, pulmonary embolism, staple line leak, and deep venous thrombosis may occur. Late complications include dumping syndrome, short bowel syndrome, nutritional deficiencies, stomal stenosis, cholelithiasis, internal and incisional hernias, bowel obstruction, marginal ulcers, and anastomotic strictures. Metabolic complications in the postoperative period include metabolic acidosis, alkalosis, and electrolyte abnormalities (Jammah, 2015).

The usual chief electrolyte abnormalities are hypocalcemia, hypomagnesemia, hyponatremia, and hypophosphatemia. Nutritional complications may result from anatomical and physiological alterations of the gastrointestinal tract and postoperative dietary changes. Fat-soluble vitamins A,

D, E, and K, iron, folic acid, copper, vitamin B12, and thiamin constitute the most frequent deficiencies (Jammah, 2015).

Vitamin D deficiency and decreased calcium absorption show metabolic bone disease after surgery. Bariatric surgery is frequently complicated by vitamin D insufficiency, reduces calcium absorption, and secondary hyperparathyroidism, which causes bone disease (osteoporosis and osteoporotic fracture), leading to high morbidity and mortality. Furthermore, the bariatric operation can induce “significant hyperoxaluria and risk of nephrolithiasis increase bacterial overgrowth causing nocturnal diarrhea and abdominal distension and cause episodes of postprandial hypoglycemia (Jammah, 2015).

2.7.1. Venous Thromboembolism (VTE)

Venous Thromboembolism, like pulmonary embolism and deep venous thrombosis, is a moderate to high risk for bariatric surgery patients. Older patients with a higher BMI and who have had a previous VTE or coagulation defect are at a higher risk (Brethauer, 2013).

2.7.2. Anastomotic Leak

Anastomosis disruption (i.e., surgically resected site) may lead to leakage of gastric contents into the peritoneal cavity, resulting in infection and possibly sepsis. Patients who are more likely to develop this complication are elderly, male, and have a higher body mass index. Fever, abdominal pain, tachycardia, and leukocytosis are common symptoms of anastomotic leaks. If not detected and treated quickly, this will lead to sepsis and potentially septic shock (Dunham, 2013). RYGB, SG, or BPD/BPD-DS may happen at either an anastomotic junction or stapler line, leading to extreme peritonitis, sepsis, and multiorgan failure. Leakage affects 1.6-3.6 percent of SG patients, 0.5 percent of RYGB patients, and 5% of BPD-DS patients (Kruger et al., 2014).

2.7.3. Hemorrhage

Following bariatric surgery, postoperative hemorrhage is a possible complication. Frank, bright red oral or rectal bleeding, tarry melena, the bloody output from the wound or drains, if present, and common clinical symptoms of extreme bleeding and hemorrhagic shock, can all indicate intra-abdominal hemorrhage (e.g., tachycardia, hypotension, syncope). A staple or suture disruption is most often the source of bleeding within the first 72 hours of surgery. Bleeding that occurs 72 hours to 30 days after surgery is almost always due to a gastric or duodenal ulcer (Patil & Melander, 2015).

2.7.4. Dysphagia

Patients who have undergone restrictive bariatric operations (e.g., sleeve gastrectomy) may experience dysphagia or trouble swallowing. If it happens, it is usually more serious 4 to 6 weeks after surgery and can last up to 6 months (Mechanick et al., 2013).

2.7.5. Dumping Syndrome

Dumping syndrome is a set of unpleasant vasomotor and gastrointestinal symptoms that often affects people that have undergone bariatric surgery. It was assumed that hypertonic gastric food boluses that rapidly transit through the intestines pulled extracellular fluid from the circulating blood volume into the small intestines to dilute the heavy concentration of electrolytes and sugars, causing symptoms. This accelerated passage of the food bolus from the stomach into the small intestines is now believed to induce a rapid and exuberant release of metabolic peptides, responsible for the dumping syndrome symptoms (Patil & Melander, 2015).

After bariatric surgery, the dumping syndrome has been documented in varying degrees (Banerjee et al., 2013). After eating a high-glycemic-index meal, you can experience early abdominal pain, diarrhea, nausea, bloating, fatigue, face flushing, palpitations, hypotension, and syncope. It's caused by accelerated gastric emptying or rapid nutrient exposure in the small intestine (Tack & DeLoose, 2014).

2.8. Preoperative Nursing Care

Any patient having abdominal surgery or laparoscopy receives equal preoperative treatment. The nurse's main responsibility is to reinforce patient education in the run-up to surgery (Ignatavicius et al., 2013).

The nurse oversees the collection of preoperative screening procedures and reviews the results. A complete blood cell count (CBC), electrolytes, blood urea nitrogen (BUN), and creatinine are examples of common laboratory studies. Other screening tests that can be obtained in obese patients include a sleep study, upper endoscopy, electrocardiogram (ECG), lipid panel, aspartate aminotransferase (AST), alanine aminotransferase (ALT), glucose, and hemoglobin A1c, as well as iron, vitamin B12, thiamine, and folate (Hinkle & Cheever, 2018).

2.9. Postoperative Nutrition Care

The points of postoperative nutrition care for bariatric patients are as follows: (1) Postoperative nutritional management and (2) Postoperative follow-up (Bosnic et al., 2014).

Postoperative nutritional management: Traditional management started with clinical monitoring of laboratory parameters, follow up through a the clear liquid diet that is advanced to regular solid foods as tolerated in the obese patient, the goals of postoperative nutritional management are to

“maximize weight loss and absorption of nutrients, maintain adequate hydration, and avoid vomiting and dumping syndrome” (Bosnic et al., 2014). Guidelines on nutrition care for postoperative bariatric patients generally focus on dietary progression and nutritional supplementation from the immediate postoperative period to six months after surgery, then long-term maintenance and support after that; the prescribed diet for bariatric patients after surgery comprises eating five to six half volume meals spread over the day; separating foods from liquids; consuming adequate protein and fluid; eating slowly, chewing foods thoroughly, and avoiding simple sugars and concentrated sweets (Tsai et al., 2014).

Postoperative diet stages and progression:

The American Association of Clinical Endocrinologists The Obesity Society American Society for Metabolic and Bariatric Surgery (AAACE)/(TOS)/(ASMBS). Guidelines recommend using a staged protocol-based meal progression instructional content of the postoperative diet stages specific to the patient's procedure. Before surgery, these instructions should be given to the patients during a six- to eight-week period; patients progress through five diet stages: clear liquids, full liquids, pureed, mechanically-altered soft foods, and firmer, regular foods. The purpose of the texture progression in all cases is to prevent unnecessarily (Bosnic, 2014).

Postoperative days 1 and 2. For the immediate period after surgery (day one), patients are made Nothing by Mouth (NPO). On the first day after surgery, patients should receive intravenous hydration, according to the guidelines established by the AAACE/TOS/ASMBS. After passing the upper gastrointestinal test, patients may be given water and ice chips on days one and two. A postoperatively clear liquid diet should be initiated within the first 24 hours after surgery; once a swallow protocol is passed, the clinical condition

remains stable. The clear liquid (with no sugar, no carbonation, and no caffeine) the diet should supply fluids, and electrolytes liquids should be consumed with small sips in the patient's amount tolerated. Patients are generally advised to sip one-fluid ounce of recommended clear liquids per hour for the first four hours, slowly increasing to four ounces of liquid/hour, progressing to one fluid once hourly tolerated (Schrier et al., 2016).

Final liquid intake should be around 48 to 64 fluid oz/day (or 1,500 to 1,900 mL/day) acceptable clear liquids include sugar-free gelatin/Jell-O, broth, sugar-free popsicles, decaffeinated beverages (e.g., tea; coffee; herbal tea), allowed beverages made with artificial sweeteners (i.e., Sweet 'N Low, Equal, NutraSweet, Splenda, Sunette, sweet one), and protein supplements. Other acceptable clear liquids include water, flavored water (e.g., Propel; Vitamin Water Zero; Sobe Water; Fruit 2.0). Unsweetened or no sugar added diluted fruit juice, Crystal Lite, powder packages of True Lemon, Lime, and salty liquids, e.g., tomato or V-8 Juice (Schrier et al., 2016).

Patients should be taken fluid when fully aware after the operation and can only be discharged if they adequately tolerate oral fluids. Drinking with a straw is not recommended; large amounts of air may be swallowed, causing pressure and abdominal discomfort before patients are discharged. The physician's assistant and bariatric dietitian will discuss home-going instructions. Patients will be discharged on a full liquid sugar-free or low sugar diet (Aspray et al., 2014).

Stage II discharge diet – full liquids. On day three after the operation, patients can begin a fully liquid diet during the fully liquid phase of the diet, liquids must be thin, smooth, and free of any particles (bumps, lumps, skins, seeds), and all liquids must be thin enough to be taken through a thin (stirrer-type) straw AACE/TOS/ASMBS guidelines recommend that patients

substitute half of the calorie-free liquids with high-protein liquids in addition to high-protein whey or soy supplements, recommended fluid for adequate hydration is 48 to 64 oz/day; acceptable full liquids include milk, milk products, and milk alternatives (e.g., unsweetened almond or soy milk (Aspray et al., 2014)).

Other liquids that contain solutes, vegetable juice, strained and thinned soups and broths, cream cereals, protein shakes/supplements, Carnation Instant Breakfast (no sugar added), sugar-free popsicles (no fruit chunks). Powerade/Gatorade Zero drinking herbal drinks, adding herbal supplements to beverages, and drinking alcohol are ill-advised. The use of alcohol is ill-advised during the rapid losing weight period and after bariatric surgery due to the rapid rate of alcohol absorption, heightened blood alcohol content, and possible defects in alcohol clearance. Protein supplements (e.g., whey or soy protein powder) may be added to full liquids at 20 gm (Aspray et al., 2014).

Stage III pureed diet. Two weeks postoperatively, patients can begin to add pureed foods. The pureed diet consists of blended or liquefied foods that provide adequate fluid. During the pureed phase of the diet, foods generally have a smooth texture that is either a consistency of baby food or applesauce, little fat and sugar, and be free of any particles (lumps, strings, seeds). Foods commonly included in the puree phase are scrambled eggs and egg substitutes, pureed lean meats, canned fish (tuna or salmon), flaked fish and meat alternatives, poultry, cooked beans, milk, soft cheeses, hot cereal, and sugar-free and low-fat gelatin, popsicles, custard, and pudding (Aspray et al., 2014).

Stage IV mechanically-altered soft diet. This diet phase serves as a transition from pureed textures to solid textures. Foods are modified in texture and consistency but not flavor to make chewing and swallow more comfortable;

meats, poultry, and fish may be cooked, ground, minced, flaked, or moistened with sauce gravy, and fruits and vegetables may be soft-cooked or pureed. Theoretically, this diet allows food to pass more easily from the gastric pouch directly into the jejunum (Aspray et al., 2014).

Stage V regular foods (maintenance). Stage V of the diet (regular foods), the last stage of the recovery period, starts approximately six to eight weeks after surgery. This diet phase is generally unrestricted; however, patients will need to follow some tenants of weight loss success, including sugar, fat, and fiber restrictions. The regular diet incorporates a variety of nutrient-dense foods: lean meat, poultry or fish, grains, decreased fat dairy, vegetables, and fruits (Aspray et al., 2014).

Postoperative nutrient requirements. The post-surgical bariatric patient's nutritional requirements are made up of the following components: energy, protein, carbohydrate, lipids (fat), and fluid Energy (calorie) requirements. Current ASMBS clinical guidelines indicate that postoperative nutritional support for bariatric patients includes a period of negative energy balance during the rapid loss weight period followed by dietary control for long-term loss weight maintenance and prevention of weight regains in response to negative energy balance. However, sufficient energy must be supplied to spare protein for tissue protein synthesis in the first six months postoperatively. Patients have been commenced on a caloric intake of 800 to 1,000 calories/day (Yarandi et al., 2014).

Protein requirements. Adequate protein intake is crucial both in the early and late postoperative time due to concerns of protein malnutrition (albumin <3.5 mg/dL). All postoperative patients risk developing protein malnutrition (PM); however, patients submitted to malabsorptive surgical procedures (RYGB and BPD/DS) present a greater risk of protein malnutrition

has been found three to six months after the operation and is largely attributed to inadequate intakes of high-quality protein related to food intolerance and decreased caloric intake (Papamargaritis et al., 2015).

Carbohydrate and lipid (fat) requirements. Once energy and protein requirements are established, dietary carbohydrate and fat needs are determined. While currently, there is no consensus on the exact levels needed for the bariatric patient population, most programs recommend a maximum consumption of 130 gm/day of carbohydrates to prevent ketosis and a maximum of 30 gm/day of lipid from preventing EFA deficiency (Papamargaritis et al., 2015).

Postoperative follow-up. The patient who has undergone a bariatric operation needs long-term, regular follow up care by the bariatric team, comprising the surgeon, the obesity specialist, the endocrinologist, the bariatric dietitian, and psychological health follow-up visits are scheduled at one, three, six, and 12 months, and annually after that, unless otherwise indicated bariatric dietitians who care for the patient after bariatric operation require to identify red flags, triage nutritional deficiencies, and be familiar with common postoperative symptoms related to the surgical risks (e.g., gastric leak; gastric ulcer; gastric stricture) typical postoperative follow-up care involves a reassessment of anthropometric data, laboratory parameters, dietary compliance and adherence with prescribed multivitamin-mineral protocol, and medication review; postoperative follow-up can also address patient concerns and challenges, help troubleshoot dumping syndrome, reestablish and help maintain dietary goals, prevent weight regain, and offer strategies to continue postoperative care at home (Craggs-Dino, 2014).

2.9.1. Prevent Venous Thromboembolism (VTE)

The risk of venous thromboembolism (VTE) is elevated following surgery. Low-dose heparin with compression stockings or intermittent pneumatic compression systems reduces VTE risk. Range-of-motion exercises, both active and passive, are a common feature of everyday treatment (Thorell, 2016).

2.9.2. Ensuring Adequate Nutritional Status

The nurse advises the patient to eat slowly and stop until they are fulling. Vomiting or painful esophageal distention can occur if you consume too much or too much or eat high-calorie liquids and soft foods (Mechanick et al., 2013).

Due to Nutritional deficiency, patients may need oral or parenteral iron supplementation and a low serum amount of vitamin B 12; patients may be given monthly vitamin B12 intramuscular injections to avoid pernicious anemia (Dunham, 2013; Isom et al., 2014). For the rest of their lives, patients can take multivitamins containing folate, calcium, vitamin D, iron, and vitamin B 12 (Cooley, 2017).

2.9.3. Relieving Pain

Analgesics can be given as prescribed after surgery to alleviate pain and discomfort. Patients are normally administered opioids through patient-controlled analgesia (PCA) pumps, which the nurse can inform them about and track for efficacy. It is important to provide sufficient pain relief so that the patient can engage in pulmonary treatment tasks (deep breathing and coughing) and leg movements, move from side to side after 2 hours, and ambulate. If the discomfort is not properly managed, the nurse evaluates the efficacy of the

analgesic intervention and consults with other members of the health care staff (Patil & Melander, 2015).

2.9.4. Ensuring Fluid Volume Balance

Intravenous (IV) fluids are normally given to bariatric surgery patients for the first few hours after surgery. They are advised to start drinking sugar-free oral fluids until they are awake and conscious in the surgical unit. Tiny amounts of these liquids promote gastrointestinal peristalsis and perfusion while still preventing gastric reflux. Sugar-free fluids are favored because they haven't been linked to the development of dumping syndrome (Hinkle & Cheever, 2018).

2.9.5. Dietary Guidelines for the Patient Who Has Had Bariatric Surgery

In most cases, the patient is discharged in four days (24 to 72 hours for laparoscopic procedures) with specific nutritional guidelines (Honan, 2019).

The nurse instructs the patient to:

1. Smaller, more regular meals with protein and fiber should be eaten; each food should not be more than 1 cup in size.
2. Consume only nutrient-rich ingredients (e.g., peanut butter, cheese, chicken, fish, and beans).
3. To prevent dumping syndrome, avoid consuming concentrated candy.
4. Instead of drinking water with meals, drink them up to 30 minutes before and 60 minutes later.
5. Drink lots of water to avoid consuming liquid calories (e.g., alcoholic beverages, fruit drinks, nondiet sodas).

6. Every day, walk for at least 30 minutes.

7. Slow down and chew the food properly (Bosnic, 2014).

2.9.6. Continuing and Transitional Care

Since they are at risk of malnutrition or weight gain after bariatric surgery, all patients must have their weight, comorbidities, physiological and nutritional status, and food and exercise habits monitored. Women of childbearing age who have bariatric surgery should use contraception for at least 18 months after the procedure to prevent pregnancy until their weight stabilizes. Following weight loss, the patient may want to have additional surgical procedures for body contouring. Breast reductions, lipoplasty to remove fat layers, or a panniculectomy or abdominoplasty to remove excess abdominal skin folds are some of the procedures available (OAC, 2015; Wykowski & Krouse, 2013). Nonsteroidal anti-inflammatory medications (NSAIDs) (e.g., ibuprofen [Motrin]) should be avoided by patients after discharge since they have been linked to the formation of stomach ulcers (Mechanick et al., 2013).

2.10. Previous Studies

First Study: Fan et al., (2020) in their study (Knowledge and Attitudes towards Obesity and Bariatric Surgery in Chinese Nurses).

Objectives:

A study done in china to investigate the knowledge of Chinese nurses about obesity and metabolic diseases and their attitudes about bariatric surgery to enhance their ability to function in this new field.

Methods:

This is a multicenter analysis, with the questionnaire circulated to cooperative hospitals in April 2018 as an automated questionnaire by Jinan

University's First Affiliated Hospital. A survey was created to look at nurses' demographics, knowledge, and attitudes towards obesity, weight loss, and bariatric surgery.

Results:

Five thousand three hundred eleven questionnaires were sent, with a response rate of 91.8 percent (4878 questionnaires) and a BMI of 65.2 percent for nurses. Obesity and associated coronary disorders were well-understood by nurses (98.6%), as was type 2 diabetes mellitus (90.2 percent). However, there was a shortage of understanding of some similar areas, such as its links to carcinoma (49.5%), GERD (40.1%), and neurological conditions (49.1%), both of which are contentious concerns of bariatric surgery. Education (p 0.05) was shown to impact nurses' knowledge of obesity comorbidities significantly. Female nurses were more likely than male nurses to prefer weight loss, but male nurses exercised more often than female nurses (p 0.05).

Conclusion:

Obesity-related metabolic conditions are little understood by Chinese nurses, who also have a low acceptance of surgical care options. Our results indicate that continuing education for Chinese nurses in obesity, metabolic diseases, and bariatric surgery is important.

Second Study: Lopez et al., (2020) in their study (Primary care providers' attitudes and knowledge of bariatric surgery).

Objectives:

This research evaluates primary care providers' referral and procedure patterns when handling obese patients. Our mission is to identify treatment challenges better to incorporate tailored approaches to improve patient quality of care.

Methods:

Primary care providers at a single research university of neighborhood doctors were emailed a 39-question electronic survey. Provider demographics, referral rates, understanding of pathophysiologic obesity processes, and bariatric surgery skills were all investigated. The researchers used frequency and univariate comparisons to compare the profiles, roles, and BMIs of referring and non-referring providers.

Results:

We had a 33.9 percent response rate (n = 41) out of 121 surveys. More than 15% of their patients were obese in the previous year, according to 78.0 percent of respondents. For 48.8% of patients, Primary care providers said they started weight loss management discussions 50% of the time. Barriers to negotiating weight loss surgery that providers found included not knowing whether the patient's insurance would cover the operation or whether the patient would be eligible (24.4 percent vs. 19.5 percent). Also, 43.9 percent of healthcare professionals believe that the complications of bariatric surgery outweigh the benefits.

Conclusion:

Even though a vast percentage of Primary care providers' patients are obese, few clinicians conduct weight-loss discussions with surgical applicants who may be qualified. The challenges found suggest that better patient education, streamlining conversations and referrals, and affirmation of the protection of surgical weight loss are all possible solutions. Providers' need for this knowledge indicates a potential to reduce the referral gap by increasing patient discussions on these topics.

Third Study: Güven and Akyolcu (2020) in their study (Effects of Nurse-Led Education on Quality of Life and Weight Loss in Patients Undergoing Bariatric Surgery).

Objectives:

To see how nurse-led education and follow-up care will help bariatric surgery patients lose weight and improve their overall quality of life.

Methods:

This is a control group analysis with a quasi-experimental design. A total of 102 patients undertaking bariatric surgery were included in the study. Patients in the intervention program attended information sessions and phone follow-up care every 15 days after surgery for three months. Bariatric surgery patients' average quality of life, weight loss, and waist circumference were evaluated.

Results:

The overall Short-Form Health Survey total and sub-dimension scores were higher in the intervention group 3 months after surgery, and the gaps between the two groups were statistically significant ($p < 0.05$). While there was no significant difference in weight loss between the two groups three months after surgery, there was a significant difference in waist circumference between the two groups.

Conclusion:

Patients' general quality of life improved significantly due to patient education and follow-up. The 3-month education and follow-up program, on the other hand, had little impact on weight loss.

Fourth Study: Mansour et al., (2019) in their study (Nurses' Performance for Patient Undergoing Bariatric Surgery).

Objectives:

The research aimed to evaluate the efficiency of nurses caring for a patient undergoing bariatric surgery.

Methods:

To achieve the study's aim, a descriptive exploratory design was used. The research was conducted in surgical units at Cairo's Ain Shams University Hospital. A random group of 30 nurses from Ain Shams University Hospital's bariatric surgery units were hired for this research. The data for this analysis was collected using a validated self-administered information appraisal questionnaire and an examination practice checklist.

Results:

According to the findings, 73.3 percent of the nurses surveyed had insufficient knowledge, and 70.0 percent had bad practices for managing bariatric surgery patients. Furthermore, there was a statistically important connection between the nurses' overall experience and total practice.

Conclusion:

According to the findings, more than two-thirds of the nurses surveyed had low knowledge and practice. The importance of introducing an educational training program to improve nurses' efficiency while caring for a patient undergoing bariatric surgery was examined in the report.

Fifth Study: ponstein (2012), in his study (Assessing the Nurses' Knowledge of Bariatric Surgery: A Performance Improvement Project)

Objectives:

This study aimed to assess nurses' awareness and attitudes toward bariatric surgery in a bariatric surgery Center of excellence hospital.

Methods:

To evaluate the nurses' present knowledge of bariatric surgical techniques and attitudes toward patients undergoing bariatric surgery, a voluntary survey was performed using Survey Monkey.

Results:

According to the survey's findings, 66.7 percent of respondents had no prior experience caring for bariatric surgical patients, 3.3 percent didn't understand gastric bypass surgery, 6.7 percent didn't understand the sleeve, and 26.7 percent didn't understand the duodenal transfer surgery. Furthermore, 43.3 percent of nurses believe that bariatric surgery increases the quality of life for certain obese patients who follow diet and postoperative orders, but 6.7 percent disagree with bariatric surgery.

Conclusion:

Since bariatric surgery has become more common in recent years to treat obesity, nurses must be familiar with the treatments and care for these patients. This survey's findings were used to teach the nurses at this hospital about bariatric surgery and the duodenal switch technique.

Chapter Three

Methodology

Chapter Three**Methodology**

Chapter three is concerned with the methodology of the current the study is systematic in the following manner:

3.1. Design of the Study

A descriptive cross-sectional study on nurses' knowledge toward sleeve gastrectomy in Al-Basrah City. The study period was extended from the 30th of November 2021 to the 15th of April 2022.

3.2. Administrative Arrangement

Official approval from the appropriate authority was received before data collection for the following:

- Before collecting the data, formal administrative permissions were obtained to conduct the study. The researcher obtains ethical approval from the Ethical Researcher Committee, University of Basrah /College of Nursing.
- Permission of Ministry of Health and Environment / Al-Basra Health Directorate / Department of Human Development and Training Center).

3.3. Ethical Considerations

The researcher explained the purpose of the study to each nurse before participation. It was confirmed that the study maneuver would not cause any actual or potential damage to the study sample. Oral consent was obtained from each nurse before data collection.

3.4. Setting of the Study

The study was conducted in surgical wards at Al-Sader Teaching Hospital, Al-Faiha Teaching Hospital, Al-Basrah Teaching Hospital, and Al-Mawani Teaching Hospital in Al-Basrah City.

3.5. Sample of the Study

Purposive (non-probability) sample covers (100) nurses who work in the surgical wards. (10) Nurses for the pilot study were excluded from the study.

3.5.1. Inclusion Criteria

1. Nurses who agree to be included in this research.
2. Nurses, both male and female.
3. All educational levels.
4. Nurses who work in the surgical wards and operating rooms.

3.5.2. Exclusion Criteria

1. Nurses refuse to participate in the study.

3.6. Construction of the Instrument Structure

To accomplish the objectives, the researcher takes a questionnaire from a study. It consists of five parts: (Appendices: **A & B**).

Part (I): Questionnaire Related to the Demographic Characteristics of the Nurses Staff

The Present part is comprised of (6) items, include: (gender, age, marital status, level of education, experience years in the nursing field, and have you participated in obesity care courses after gastric sleeve surgery.

Part (II): Questionnaire Related to Nurses' Knowledge toward Sleeve Gastrectomy

This part was constructed to assess the nurses' knowledge concerning sleeve gastrectomy. It consisted of (11) items.

Part (III): Questionnaire Related to Nursing Care Before Sleeve Gastrectomy

This part was constructed to assess the nurses' knowledge about nursing care before sleeve gastrectomy. It consisted of (8) items.

Part (IV): Questionnaire Related to Knowledge about Nursing Care After Sleeve Gastrectomy

This part was constructed to assess the nurses' knowledge concerning nursing care after sleeve gastrectomy. It consisted of (15) items.

Part (V): Questionnaire Related to Nurses' Knowledge toward Complications of Sleeve Gastrectomy

This part was constructed to assess the nurses' knowledge of sleeve gastrectomy complications. It consisted of (16) items.

3.7. Validity of the Instrument

Content validity has been determined to evaluate the tool (questionnaire) through a panel of twelve experts. These experts are from College of Nursing/ University of Basrah. These experts were given a copy of the research instrument and asked to review and test it for material clarity and adequacy to investigate the questionnaire's content. The researcher followed both expert suggestions. Some elements were left out after considering all of the feedback and suggestions. After making the necessary changes based on their answers, the questionnaire was deemed accurate.

3.8. Reliability of the Instrument

The Cronbach's Alpha test was used to assess the testing instrument's reliability using the Statistical Package for Social Science Program (SPSS) for (51) items.

Table (3-1) Reliability of Research Instrument

Methods of Reliability	Criteria of the Study	Actual Values	No.of Items	Assessment
Cronbach's Alpha	Nurses' knowledge	0.87	50	Very good

3.9. Data Collection Methods

The researcher collected the data using a constructive knowledge questionnaire. The data collection period was extended from the 27th of December 2021 to the 8th of March 2021.

3.10. Ranging and Scoring

We used three (3) points Likert Scale, ranging from 1 to (3). This scale is composed of (50) items; these items were measured on a three-point Likert scale, which ranged from 1 (Don't know), 2 (Uncertain), and 3 (Know). About (10–15) Minutes were given to each nurse for test completion. The level of assessment for each item in the knowledge scales was estimated by calculating the cut-off point for the mean of the score and scored as follows: The researcher determined (1–1.66) for poor knowledge, (1.67–2.33) for moderate knowledge, and (2.34–3) for the good knowledge.

Assessment			
Likert Scale	Interval	Difference (Cut-off Point)	Assessment
1	1 – 1.66	0.66	Poor
2	1.67 – 2.33	0.66	Moderate
3	2.34 – 3	0.66	Good

3.11. Data Analysis

The current study's data were analyzed with the Statistical Package for Social Sciences (SPSS) version (26). The study's findings are analyzed and evaluated using the statistical data analysis methods mentioned below.

3.11.1. Descriptive Statistical Tests

3.11.1.a. Frequency (F)

The probability of an occurrence in statistics refers to the number of times it occurs in an experiment or sample (Kenny & Keeping, 2016).

3.11.1.b. Percentage

It is a fraction of 100 expressed as a number or percentage. The percent symbol is sometimes used to represent it (Bennett, 2005).

$$\% = \frac{\text{Frequencies}}{\text{Sample size}} \times 100$$

(Bennett, 2005)

3.11.1.c. Mean of Score (MS)

It is the distribution's arithmetic average. The formula for calculating the

Mean is:

$$\bar{x} = \frac{\sum xi}{n}$$

(Plichta & Kelvin, 2013).

3.11.2. Inferential Analysis

The following criteria are used to support or deny the statistical hypothesis:

3.11.2.1. Cronbach's Alpha

It was used to estimate the internal consistency of the study instrument (Polit & Hungler, 2013) and calculated as:

$$r = \frac{K}{K - 1} \left[1 - \frac{\sum Q1^2}{QY2} \right]$$

R = the estimation reliability.

K = the total number of items in the test.

Q1² = the variance of each item.

Qy² = the variance of the total test score.

∑ = the sum of

3.12.2.2. Standard deviation (Sd.)

The basic formula for the sample standard deviation is:

$$s = \sqrt{\frac{\sum f(x - \bar{x})^2}{n - 1}}$$

(Rentala, 2019)

3.12.2.3. Chi-Square Test

It was used to determine the significant relationship between the nurses' knowledge and practices with their demographic characteristics. The chi-square statistic is computed with the following formula:

$$X^2 = \sum_{i=1}^n \frac{(f_o - f_e)^2}{f_e}$$

(Plichta & Kelvin, 2013)

Chapter Four

Results of the Study

Chapter Four

Results of the Study

(4-1): Distribution of the Variables Related Demographic Characteristics
N=100 nursing staff

Demographic Variables	Variables Classes	F	Percent
Gender	Male	29	29 %
	Female	71	71 %
	Total	100	100 %
Age	21-27	37	37 %
	28-34	41	41 %
	35-41	7	5 %
	42-48	5	5 %
	49-55	10	10 %
	Total	100	100 %
Marital status	Married	74	67.5 %
	Single	26	32.5 %
	Total	100	100 %
Education level	Nursing School	38	38 %
	Nursing Institute	44	44 %
	Nursing College	18	18 %
	Total	100	100 %
Years of experience	1-10	78	78 %
	11-20	13	13 %
	21-30	9	9 %
	Total	100	100 %
Training Course	Yes	20	20 %
	No	80	80 %
	Total	100	100 %

F = frequency

Table (4.1) shows nurses' descriptive statistics (frequency and percentage). It explains that the majority of the nurse's subgroup are: female nurses (71%), nurses aged between (28-34) years old (41%), married nurses (74%), nurses who graduated from the institute of nursing (44%), those with (1-10) years of experience in nursing (78%), those with no training courses (80%).

(4-2): Nurses' Knowledge toward Sleeve Gastrectomy

Table (2): Nursing Staff's Knowledge toward Sleeve Gastrectomy

Nursing Staff's Knowledge						
Assessment levels	F	%	Scale	Total		
				MS	Sd	Ass.
Poor	71	71%	1 – 1.66	1.63	0.783	Poor
Moderate	13	13%	1.67 – 2.33			
Good	16	16%	2.34 – 3			
Total	100	100 %				

F = frequency, % = Percent, MS = Mean Score, Ass. = Assessment, Sd=Standard Deviation.

The findings of this table indicate that the majority of the nurses (71%) have poor knowledge about sleeve gastrectomy, (13%) of them have moderate knowledge, and (16%) of them have good knowledge of the mean score and standard level deviation= (1.63+0.783).

Table (3): Relationships of Demographic Variables with Nurses' Knowledge (all domains)

Demographic Variables	Variables Classes	Knowledge			Chi-Square (X ²)	df	P-Value	Sig
		Poor	Moderate	Good				
Gender	Male	19	6	4	2.155	2	0.340	NS
	Female	52	7	12				
Age	21-27	26	3	8	6.667	8	0.573	NS
	28-34	28	7	6				
	35-41	5	2	0				
	42-48	5	0	0				
	49-55	7	1	2				
Marital Status	Single	52	12	10	3.386	2	0.184	NS
	Married	19	1	6				
Education Level	Nursing School	30	6	2	45.442	4	0.000	HS
	Nursing Institute	38	4	2				
	Nursing College	3	3	12				
Year of Experience in Nursing	1-10	56	8	14	5.035	4	0.284	NS
	11-20	9	2	2				
	21-30	6	3	0				
Training Course	Yes	4	8	8	32.178	2	0.00	HS
	No	67	5	8				

Df: Degree of freedom, P: Probability value, NS: Not Significant, HS: high significance

This table shows a significant relationship between nurses' (education level and training courses) and their knowledge of sleeve gastrectomy at a P-value ≤ 0.05 .

Also, the findings of this table shows there is no significant relationship between nurses' (gender, age, marital status, and years of experience) and their knowledge about sleeve gastrectomy at a P-value > 0.05 .

Chapter Five

Discussion of the Results

Chapter Five**Discussion of the Results**

The findings of this study are discussed in this chapter that is presented through tables in chapter four with organized support from available articles such as the ones mentioned below:

5.1. Discussion of Demographic Variables**5.1.1. Gender**

Regarding gender, the present study found that the majority of females nurses are (71%). This result agrees with (Lee and Wu, 2019). In China, they found that the majority of females nurses. But disagree with the study of (Graham et al., 2017) at Oxford University, which found females nurses among 11%. The difference between the two studies was that the female study nurses were more numerous in hospitals in this current study. Simultaneously, the nursing colleges in Iraq accepts female about 75% more than males, about 25%.

5.1.2. Age

Descriptive statistics are shown for nurses, and they explain that most of the nurse's subgroups are: nurses with ages between (28-34) years old 41%. (Kelley et al., 2016) At Harvard University, researchers found that the nurse's age (range= 23–32) is the dominant age group of the study sample, and this study result is similar to the present study. But this study contradicts another study that showed nurses aged between 27-51 years old with a mean age of 39.1 (Chaghari et al., 2017) in Australia. This difference is because, in this current study, the majority of the nurses were young.

5.1.3 Marital Status

The present study demonstrated of married nurses is 74%. (Griauzde et al., 2018) in the United Kingdom and (Twells et al., 2017) in Canada; these two studies are similar to the present study found married nurses with the same result.

5.1.4. Educational Level

The present study shows nurses who graduated from the Institute of Nursing is (44%); this result is similar to a previous study by (Casella et al., 2016) at the University of Rome, But disagrees with the study by (Fan et al., 2020) in China, this difference is due to the difference in the number of nurses in both studies, so it is natural for them to have different educational levels. The researcher suggests the result comes from a different level of education because countries like Iraq have colleges, institutes, and nursing schools that lead to different education levels.

5.1.5. Years of Experience

Concerning years of experience in nursing, the current study shows 1-10 (78%). this result comes along with (Hoyuela, 2017) in Turkish and disagrees with another result (Castagneto Gisse et al., 2018). This is due to nurses' different ages in this study and referring older ages to retirement.

5.1.6. Training Course

According to nurses' training courses in sleeve gastrectomy, the present study didn't participate (77.5%). This result is likeness to the study by (Wentzell and Neff, 2015) in Brazil. But contradiction to the result obtained by (Yu et al., 2019) in China. This is due to it being a modern technique.

5.2. Discussion of Nurses' Knowledge about Sleeve Gastrectomy

The current study findings in tables (2) explored the statistics of nurses' knowledge toward sleeve gastrectomy. Nurses' knowledge statistics are classified into four main domains: Nurses' knowledge about sleeve gastrectomy, nurses' knowledge concerning preoperative nursing care, nurses' knowledge concerning postoperative nursing care, and nurses' knowledge about sleeve gastrectomy complications.

The present study results indicated that most study samples (71%) have poor knowledge about sleeve gastrectomy.

The present study's findings agreed with (Al-Azawi and Hameed, 2020) in Iraq. In their study, the results showed that studied nurses (92.5%) had poor knowledge.

The results of this study agreed with (Mansour et al., 2019) in Egypt. In their study the results showed that more than two-thirds of studied nurses (73.3%) had poor knowledge and practice.

The study's findings agreed with (Fan et al., 2020) in their study "Knowledge and Attitudes Towards Obesity and Bariatric Surgery in Chinese Nurses" they concluded that Chinese Nurses have poor knowledge of obesity-related metabolic disorders and have poor acceptance of their surgical treatment modalities.

This study also agreed with (Ponstein, 2012) in his study "Assessing the Nurses' Knowledge of Bariatric surgery: A Performance Improvement Project" his results showed that 66.7% had no previous experience in caring for bariatric surgical patients.

In the researcher's opinion, nurses' knowledge deficit regarding sleeve gastrectomy might be due to many causes; This surgery is a new technique for the treatment of obesity, nurses have not studied sleeve gastrectomy at all levels of education for nursing, and the nurses do not have any training courses about sleeve gastrectomy, the nurses do not develop and update their knowledge continuously.

5.3. Discussion of Relationship between Nurses' Knowledge and Demographic Variables

The result is related to associations between nurses' knowledge and demographical data (Table 5). The present study reveals no significant association between nurses' knowledge and demographic data of the study group concerning (age, gender, marital status, and years of experience) except for the level of education. The present study results are supported by studies that indicated no significant difference between demographic data and nurses' knowledge (Al-Azawi and Hameed, 2021), who mentioned that the nurses' demographic data did not affect nurses' demographic data the results.

In the researcher's opinion, most of the sample was secondary school nurses and institute nurses, and few percentages from the college of nursing, this large number of secondary school nurses and institute nurses leads to a significant relationship between nurses' level of education and their knowledge that was poor in most of the nurses.

Chapter Six

Conclusions and Recommendations

Chapter Six**Conclusions and Recommendations****6.1. Conclusions**

The researcher writes the following conclusions based on the findings of this study:

- 1.** Nurses' age was between (28-34) years (41%). Most of them were female (71%), married (74%), nurses who graduated from the institute of nursing (44%), those with (1-10) years of experience in nursing (78%), those with no training courses (80%).
- 2.** Nurses' knowledge about sleeve gastrectomy was poor in all domains (general knowledge, pre sleeve gastrectomy, post sleeve gastrectomy, and complications related to sleeve gastrectomy).
- 3.** There are no significant differences between demographic data (age, gender, marital status, years of experience) and nurses' knowledge.
- 4.** There is a significant association between nurses' knowledge and their (educational level and training course).

6.2. Recommendations

The researcher recommends the following based on the findings of the present study:

- 1.** Training and education programs in their specialty must be designed and created for nurses in this surgical ward to reinforce their knowledge.
- 2.** Enhancing nurses' opportunity in the surgical ward to update their education to demand knowledge and skills regarding sleeve gastrectomy.
- 3.** Providing refreshing training courses for nurses related to sleeve gastrectomy.

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Appendices

Appendix-A**English Questionnaire****Part 1: Nurses' Demographic Information**

Age: years

Gender: male female

Marital Status: single married

Levels of Education:

Graduate School of Nursing

Graduate Institute of Nursing

Graduate of the Faculty of Nursing

Years of experience in nursing:

Have you participated in courses to care for obesity patients?

Yes No

Part two: General Information about Sleeve Gastrectomy

No	Items	Know	Uncertain	Don't Know
1	Laparoscopic sleeve gastrectomy is an optional surgical procedure only			
2	sleeve gastrectomy is about 80% of the stomach removed for weight loss			
3	sleeve gastrectomy is performed for people if their body mass index (BMI) is from 35_39.5			
4	The operation is performed for those suffering from serious obesity-related diseases such as (diabetes, cardiovascular disease, high blood pressure, and obstructive sleep apnea).			
5	The sleeve gastrectomy operation is performed for people if their BMI is 40 or more			
6	when performing a sleeve gastrectomy are removed the ghrelin hormone responsible for hunger			
7	The doctor can perform a laparoscopic sleeve gastrectomy			
8	Gastrectomy is performed for patients from 14 to 65 years of age			
9	The percentage of excess weight loss during the first three months by 33%			
10	Weight loss within six months of 50%			
11	Weight loss during 12 months by 65%			

Part Three: Nursing Care Before Sleeve Gastrectomy

1	Pre-operative examinations (complete blood count, liver function, kidney function, thyroid function, electrocardiogram, chest x-ray, fluoroscopy on the abdomen to diagnose gallstones and liver size)			
2	Stop smoking 12 weeks before surgery			
3	The doctor and nurse took the patient's medical history and the medicines he had used previously			
4	Stop eating a day before stomach the sleeve			
5	The patient's pre-operative diet program was started by the doctor			
6	The nurse educates the patient before the procedure on how to do the following things (diaphragm breathing exercises, how to do a therapeutic cough, deep breathing exercises)			
7	The nurse or nurse educates the patient before the procedure on how to do the following things (leg movement exercises, foot movement exercises)			
8	The nurse or the nurse prepares the location of the operation (Clean place of operation, shave place of operation).			

Part Four: Nursing Care After Sleeve Gastrectomy

1 -	Fluids and food may be given immediately after the operation.			
2	In the first week, the patient takes only clear fluids			
3	The patient's diet in the second and third week is a protein-rich liquid			
4	The second and third weeks, the patient avoids eating sugar and fat			
5	After the third week, the patient turns to thicker and crushed foods			
6	After the fourth week, the patient turns to solid foods			
7	The patient consumes three meals a day containing protein and fiber in addition to two snacks			
8	The patient drinks a lot of water from 90 minutes after each meal to 15 minutes before the next meal			
9	The patient should not combine eating and drinking at the same time			
10	One serving size is less than one cup			
11	The patient walks at least 30 minutes a day			
12	The patient takes medications and vitamins determined by the doctor			

13	The patient made regular visits to the doctor to follow up on his condition			
14	Nursing diagnosis after the quantization the process is subject to the patient's imbalance in nutrition (food is less than the body needs).			
15	Nursing diagnosis after the quantization process, the patient suffers from a lack of information about the quantization process.			

Part Five: Complications

1	Bleeding			
2	Infusion			
3	diarrhea			
4	Indigestion			
5	Nausea and vomiting			
6	Wound inflammation			
7	Anemia			
8	Esophagitis and heartburn			
9	Ulceration			
10	Hair loss and nail breakage			
11	Gastrointestinal obstruction			
12	Hernia			
13	Gastroesophageal reflux			
14	Low blood sugar			
15	Gallstones			
16	Abdominal adhesions			

Appendix-B

استمارة الاستبيان باللغة العربية

الجزء الأول: المعلومات الديموغرافية للممرض

- العمر : سنة
- الجنس : ذكر انثى
- الحالة الاجتماعية :
- اعزب متزوج
- المستوى التعليمي: خريج اعدادية تمريض
- خريج معهد التمريض
- كلية التمريض
- عدد سنوات الخبرة في التمريض :

هل شاركت في دورات للعناية بمرضى السمنة (عملية تكيم المعدة)؟

نعم كلا

الجزء الثاني : معلومات عامة عن قص المعدة

ت	الفقرات	اعرف	غير متأكد	لا أعرف
1 -	تكميم المعدة (sleeve gastrectomy) بالمنظار هي عملية جراحية اختيارية فقط			
2	تكميم المعدة هو أزاله حوالي 80% من المعدة لفقدان الوزن			
3	يتم إجراء عملية تكميم المعدة للأشخاص اذا كان مؤشر كتلة الجسم (BMI) من 35_5.39			
4	تجرى العملية لمن يعانون من امراض خطيره مرتبطة بالسمنة مثل (السكري , امراض القلب والاعوية الدموية ,ارتفاع ضغط الدم وتوقف التنفس الانسدادي اثناء النوم).			
5	يتم إجراء عملية تكميم المعدة للأشخاص اذا كان مؤشر كتلة الجسم 40 أو أكثر			
6	عند إجراء عملية تكميم المعدة تتم إزالة هرمون الجريلين المسؤول عن الجوع			
7	يستطيع الطبيب إجراء عملية تكميم المعدة بالمنظار			
8	تجرى عملية تكميم المعدة للمرضى من عمر 14 _ 65 سنة			
9	النسبة المئوية من فقدان الوزن الزائد فقدان الوزن خلال الثلاثة أشهر الاولى بنسبة 33%			
10	فقدان الوزن خلال 6 أشهر بنسبة 50%			
11	فقدان الوزن خلال 12 شهر بنسبة 65%			

الجزء الثالث: العناية التمريضية قبل عملية تكميم المعدة

			أجراء الفحوصات قبل الجراحة (صورة دم كاملة , وظائف الكبد , وظائف الكلى ,وظائف الغدة الدرقية , رسم القلب , و أشعة على الصدر , أشعة تلفزيونية على البطن لتشخيص حصوات بالمرارة وحجم الكبد)	1
			ايقاف التدخين قبل 12 اسبوع من الجراحة	2
			أخذ الطبيب والممرض للتاريخ الطبي للمريض والادوية التي يستخدمها سابقا	3
			التوقف عن تناول الطعام قبل يوم من عملية تكميم المعدة	4
			بدأ برنامج نظام غذائي للمريض قبل العملية يحدده الطبيب	5
			تقوم الممرضة بتنقيف المريض قبل العملية على كيفية القيام بالأمور التالية (تمارين تنفس الحجاب الحاجز، كيفية عمل السعال العلاجي، تمارين التنفس العميق)	6
			يقوم الممرض أو تقوم الممرضة بتنقيف المريض قبل العملية على كيفية القيام بالأمور التالية (تمارين حركة الساق ، تمارين حركة القدم)	7
			يقوم الممرض أو تقوم الممرضة بتحضير مكان العملية (تنظيف مكان العملية، حلاقة مكان العملية.)	8

الجزء الرابع: العناية التمريضية بعد إجراء تكميم المعدة

1	-	يعوز إعطاء السوائل والطعام بعد إجراء العملية مباشرة	اعرف	غير متأكد	لا أعرف
2		يتناول المريض في الأسبوع الأول سوائل صافية فقط			
3		النظام الغذائي للمريض في الأسبوع الثاني والثالث سائل غني بالبروتين			
4		الأسبوع الثاني والثالث تجنب المريض تناول السكر والدهون			
5		بعد الأسبوع الثالث يتحول المريض الى اطعمة اكثر سمكا ومهروسة			
6		بعد الأسبوع الرابع يتحول المريض الى الأطعمة الصلبة			
7		يتناول المريض ثلاث وجبات يوميا تحتوي على البروتين والالياف بالإضافة الى وجبتين خفيفتين			
8		يشرب المريض الكثير من الماء من 90 دقيقة بعد كل وجبة الى 15 دقيقة قبل الوجبة التالية؟			
9		على المريض ان لا يجمع بين الاكل و الشرب في نفس الوقت			
10		حجم الوجبة الواحدة اقل من كوب واحد			
11		يمارس المريض المشي 30 دقيقة على الأقل في اليوم			
12		يتناول المريض ادوية وفيتامينات يحددها الطبيب			
13		أجراء المريض زيارات منتظمة الى الطبيب لمتابعة وضعه			

			14	التشخيص التمريضي بعد عملية التكميم يكون معرض المريض لعدم توازن التغذية (الغذاء اقل مما يحتاجه الجسم).
			15	التشخيص التمريضي بعد عملية التكميم يعاني المريض من قلة المعلومات حول عملية التكميم

الجزء الخامس: المضاعفات

1	النزيف	اعرف	غير متأكد	لا أعرف
2	التسريب			
3	الأسهال			
4	عسر الهضم			
5	الغثيان والقئ			
6	حدوث الالتهاب الجرح			
7	فقر الدم			
8	التهاب المريء والحرقة			
9	التقرح			
10	تساقط الشعر و تكسر الأظافر			
11	الأنسداد المعوي المعدي			
12	الفتق			
13	الأرتجاع المعدي المريئي			
14	انخفاض نسبة السكر في الدم			
15	حصوات المرارة			
16	التصاقات البطن			

Appendix-C

Panel of Experts

ت	اسم الخبير	اللقب العلمي	مكان العمل	الاختصاص الدقيق	سنوات الخبرة
١	د. سجاد سالم عيسى	استاذ	جامعة البصرة/ كلية التمريض	طب أسرة	٢٦ سنة
٢	د. محفوظ فالح حسن	استاذ	جامعة البصرة/ كلية التمريض	فسلجة مرضية	٢٢ سنة
٣	د. سميرة محمد ابراهيم	استاذ مساعد	جامعة البصرة/ كلية التمريض	طب الاسرة	٣٥ سنة
٤	د. وصفي ظاهر عبد علي	استاذ مساعد	جامعة البصرة/ كلية التمريض	فسلجة مرضية	٣٠ سنة
٥	د. زينب علك حسن	استاذ مساعد	جامعة البصرة/ كلية التمريض	أحياء مجهرية	١١ سنة
٦	أ.م عبدالكريم سلمان خضير	استاذ مساعد	جامعة البصرة/ كلية التمريض	تمريض بالغين	١٢ سنة
٧	م. أفكار فاضل كريم	مدرس	جامعة البصرة/ كلية التمريض	نفسية و عقلية	٢٧ سنة
٨	م.د. عادل علي حسين	مدرس دكتور	جامعة البصرة/ كلية التمريض	تمريض أطفال	٨ سنوات
٩	م.م. ماهر عبدالأمير عطية	مدرس مساعد	جامعة البصرة/ كلية التمريض	تمريض بالغين	٨ سنوات
١٠	م.م. زينب سلمان داوود	مدرس مساعد	جامعة البصرة/ كلية التمريض	تمريض بالغين	٧ سنوات

الخلاصة

الخلفية العلمية: يعتبر تكميم المعدة فعالا ودائما لاستراتيجية فقدان الوزن لدى العديد من المرضى. قد يكون إجراء تكميم المعدة خيارا مناسباً لفقدان الوزن للمرضى الذين لديهم مؤشر كتلة الجسم أكبر من ٤٠ كجم / م ٢ ، لذلك أولئك الذين لديهم مؤشر كتلة الجسم بين ٣٥-٤٠ الذين أصيبوا بأمراض مرتبطة بالسمنة وأولئك الذين لم يكونوا نشطين في فقدان الوزن بسبب فقدان الوزن إلى استراتيجيات إضافية لفقدان الوزن.

الأهداف: هدفت هذه الدراسة إلى تقييم معارف المرضين تجاه تكميم المعدة وإيجاد العلاقة بين معارف المرضات تجاه تكميم المعدة وخصائصهم الديموغرافية مثل (العمر، الجنس، مستوى التعليم، سنوات الخبرة، الدورات التدريبية).

المنهجية: دراسة وصفية لمعارف واتجاهات المرضين تجاه تكميم المعدة في (مستشفى الصدر التعليمي، مستشفى الفيحاء التعليمي، مستشفى البصرة التعليمي، مستشفى الشفاء، مستشفى المواني التعليمي) في محافظة البصرة. امتدت فترة الدراسة من ٢٥ تشرين الثاني ٢٠٢١ إلى ١٠ أبريل ٢٠٢٢. عينة قصدية (غير احتمالية) من (١٠٠) ممرض. ولتحديد مصداقية الاستبانة، تم اختيار (١٠) خبيراً لمراجعة الاستبانة. تم تحديد ثبات الاستبانة باستخدام اختبار ألفا كرونباخ.

النتائج: أظهرت هذه الدراسة أن (٧١٪) من المرضين الذين شملتهم الدراسة لديهم معرفة ضعيفة بتكميم المعدة ، و(١٣٪) من المرضين لديهم معرفة متوسطة، و(١٦٪) من المرضين لديهم معرفة جيدة.

الاستنتاجات: خلصت الدراسة الحالية إلى أن المرضين لديهم معرفة ضعيفة تجاه تكميم المعدة.

التوصيات: يوصي الباحث بدورات تدريبية خاصة لجميع الملاكات التمريضية حول تكميم المعدة، ومضاعفات تكميم المعدة ، والرعاية التمريضية بعد العملية الجراحية للمرضى الذين يعانون من تكميم المعدة.



جامعة البصرة/ كلية التمريض

معارف الممرضين باتجاه تكميم المعدة في مدينة البصرة

مشروع بحث مقدم الى كلية التمريض/جامعة البصرة

لنيل درجة البكالوريوس في علوم التمريض

من قبل

سارة شمخي عبود

إشراف

م. فرحان لايد

نيسان ٢٠٢٢ ميلادية

رمضان ١٤٤٣ هجرية