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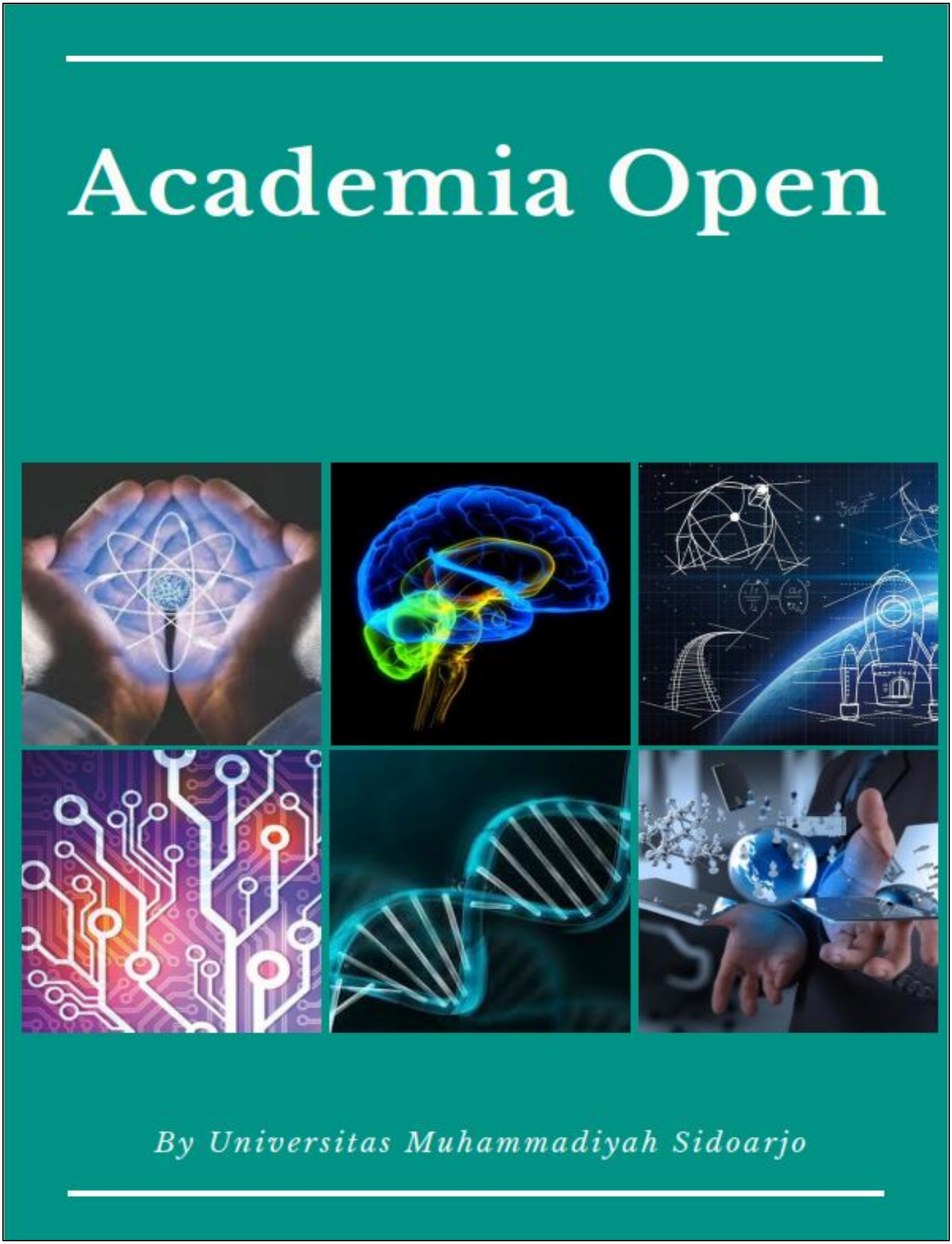

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Assessing Nursing Students' Knowledge of Sleeve Gastrectomy Effects

Menilai Pengetahuan Mahasiswa Keperawatan tentang Efek Gastrektomi Lengan

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Abstract

This descriptive study assesses the knowledge of gastric sleeve procedures among 55 fourth-year nursing students at the College of Nursing in 2024. Recognizing the crucial role of nurses in managing obesity through surgical interventions, this research aims to identify educational gaps within the nursing curriculum. The students were evaluated using a structured questionnaire focused on their understanding of the procedure's link to obesity factors. Results indicated that the majority of students had a satisfactory knowledge level, with significant mean scores; however, about 25% of the responses—mainly those detailing surgical specifics—showed insufficient knowledge. These findings highlight the need for enhanced educational focus on bariatric surgery in nursing programs to better prepare students for clinical responsibilities in patient care and surgical support.

Highlights:

- Knowledge Level: Majority of students showed good understanding of gastric sleeve procedures.
- Knowledge Gaps: About 25% lacked detailed surgical knowledge.
- Educational Implications: Results suggest the need for enhanced bariatric surgery content in nursing curricula.

Keywords: Gastrectomy, Obesity, Nursing Education, Bariatric, Knowledge

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Introduction

To explain the roots of the contemporary obesity pandemic, a number of ideas and hypotheses have been proposed. A geneticist named James V. Neel proposed his idea in 1962, explaining how the development of natural human evolution supported the persistence of obesity and diabetes by encouraging "thrifty genes." [1]. According to a more contemporary explanation put out by John Speakman, the obesity phenotype is the consequence of genetic drift, brought on by a collection of "drifty genes," which takes into account the fact that not all modern people are fat [2]. Bariatric surgery has demonstrated remarkable clinical results. But our understanding of the intricate metabolic consequences and physiological mechanisms behind bariatric surgery is still developing. The scientific basis of obesity and its treatment has been greatly expanded by ongoing research; the physiology of metabolic and bariatric surgery is reviewed in this article [3]. Following a subtotal gastrectomy, Friedman and associates observed "the amelioration of diabetes mellitus." [4]. Experience with gastric bypass surgery on obese individuals resulted in an 83% resolution of diabetes (defined as normoglycemia without medication) and successful and long-lasting weight loss (during a 14-year period) [5]. The body of research supporting bariatric surgery's efficacy, long-term viability, and safety has kept increasing [6]. Laparoscopic sleeve gastrectomy cause decrease in liver enzymes level, Patients with hepatic steatosis and morbid obesity may benefit from laparoscopic sleeve gastrectomy as a modality of therapy [7]. Within five to ten years of diagnosis, one-third of people with non-alcoholic fatty liver disease (NASH) are thought to proceed to fibrosis. When taking into account liver transplant criteria, NAFLD/NASH is now the reason why patients on waiting lists in the US are developing HCC at the fastest rate [8].

M ethods

The present study design as a cross-sectional the achieve the evaluating of knowledge of undergraduate nursing students regarding a physiological effects of sleeve gastrectomy. Through a questionnaire prepared for this purpose,55 students (male and female) from college of nursing – University of Basrah -Iraq were participate the assessment questionnaire include the some information questions regarding sleeve gastrostomy and it’s physiological effects for statically analysis, Spss program used for percentage , mean sore calculation and significancy.

Results and Discussion

Fifty-five students from nursing college at the final academic year of university of Basrah’ participated questionnaire to assess their knowledge regarding physiological effects of stomach sleeve

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No	Question	Yes	No	Don't know	MS	S
1	Obesity is the main reason for undergoing gastric sleeve surgery	50	5	0	2.9	s
2	Overweight and obesity are fatal causes in many countries of the world	46	6	3	2.8	S
3	The first gastric sleeve operation was performed in 1988, performed by Miller	9	7	39	1.5	NS
4	Bariatric is the term used to refer to gastric sleeve surgery	16	3	36	1.6	NS
5	Gastric sleeve surgery reduces 20% of the stomach's volume	33	4	18	2.3	S
6	The hormone a ghrelin secreted from the intestines is affected by the gastric sleeve process, which increases in cases of obesity	29	3	23	2.1	S
7	The hormone leptin secreted from the intestines is affected by the gastric sleeve procedure	25	3	24	1.9	NS
8	The hormone leptin is secreted from adipose tissue and its level decreases after the gastric sleeve procedure	23	4	29	1.9	NS
9	After gastric sleeve surgery, appetite decreases and the level of the hormone ghrelin decreases	43	2	10	2.6	S
10	Liver enzymes are affected by the gastric sleeve process, as ALT, AST, and ALP enzymes increase	30	3	22	2.1	S
11	BMI is affected within two months of gastric sleeve surgery	43	6	6	2.7	S
12	Gastric sleeve surgery only includes weight loss and has a role in reducing complications	22	19	14	2.1	S
13	The gastric sleeve procedure depends on the patient's age	19	19	17	2.0	S
14	Liver functions are not affected by gastric sleeve surgery	46	3	3	2.7	S
15	It is preferable to adopt a nutritional program and lifestyle changes rather than gastric sleeve surgery	12	31	12	2.0	S
16	Gastric sleeve surgery is 100% safe	31	16	12	2.5	S
	Total				2.2	S

Figure 1. *Questionnaire to Assess their Knowledge Regarding Physiological Effects of Stomach Sleeve*

The results showed that the participants student had general knowledge about the sleeve gastrotomy so that results were significant but they haven't a knowledge corresponding the procedure or hormonal effect or the history of this surgical operation and the rustles s revealed significant mean of score (2.23). Obesity has become one of the most important health problems among everyone, especially among young people. Obesity surgery has become widespread in China and still is for most people. Knowledge regarding obesity surgery in college students is important in making health decisions [9].

There were 1,730 participants in the study by Mohamed et al., with the majority being female and having a bachelor's degree [10]. The participants ranged in age from 18 to 25. Although just 50.1% of participants correctly identified the BMI range for obesity categorization, awareness of gastric sleeve surgery was notably high, with 99% having heard of it. 3.1% had intermediate knowledge, 7.2% had high knowledge, and 61.7% had inadequate knowledge, according to knowledge scores. Out of those who had gastric sleeve surgery, only 56.1% properly answered [11]. Public education and health awareness campaigns have an important role [12]. The most important thing that concerns us is the need to get the right people for their specific needs [13].

Knowledge of the possible complications after gastric sleeve surgery has not produced the desired results. It is not as well-known that some of the most frequent side effects, such iron shortage, anemia, stomach content leaks, and bleeding, exist [14]. Gaining further understanding is essential to effectively avoid the possible hazards and advantages of this process [15].

Conclusions

One very safe and successful option for addressing the illness of obesity is bariatric surgery. Since more than one in twenty persons in the US are morbidly obese, bariatric surgery has become increasingly widespread and is probably here to stay. Thus, it is essential that prelicensure nursing programmes equip students to provide bariatric surgery patients with competent, high-quality care. Nursing students can learn about the special requirements of bariatric surgery patients by using This article presents the case study. The requirements for pre-

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operative, peri-operative, post-operative, and continuing care are satisfied for the bariatric surgery patient through the use of a nursing process framework and critical thinking exercises.

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