



## Nursing Care Plan for Patients Undergoing Bariatric Surgery at the IESS Ambato Hospital

Gloria Rebeca Medina Naranjo<sup>1</sup>, Adisnay Rodríguez Plasencia<sup>2</sup>, Nayrovis Gómez Martínez<sup>3</sup>, Guadalupe Eduvige Cuello Freire<sup>4</sup>

<sup>1,2,3,4</sup>Universidad Regional Autónoma de Los Andes Ambato, Ecuador

Email: [ua.gloriamedina@uniandes.edu.ec](mailto:ua.gloriamedina@uniandes.edu.ec)<sup>1</sup>, [ua.adisnayrodriguez@uniandes.edu.ec](mailto:ua.adisnayrodriguez@uniandes.edu.ec)<sup>2</sup>,  
[ua.nairovysgomez@uniandes.edu.ec](mailto:ua.nairovysgomez@uniandes.edu.ec)<sup>3</sup>, [ua.guadalupecuello@uniandes.edu.ec](mailto:ua.guadalupecuello@uniandes.edu.ec)<sup>4</sup>

ORCID ID: 0000-0001-5660-9171<sup>1</sup>, 0000-0002-5293-2817<sup>2</sup>, 0000-0003-1120-8408<sup>3</sup>, 0000-0003-2251-2528<sup>4</sup>

\*Corresponding author's E-mail: [ua.gloriamedina@uniandes.edu.ec](mailto:ua.gloriamedina@uniandes.edu.ec)

Article History	Abstract
Received: 06 June 2023 Revised: 15 Sept 2023 Accepted: 21 Sept 2023	<p><b>Aim:</b> Bariatric surgery has emerged as the most effective option in the treatment of obesity, but it is important to recognize that it also involves significant changes in the patient's lifestyle. Psychology plays a crucial role in helping the patient understand and adapt to these changes to improve their health. <b>Material and method:</b> The objective of this study is to develop a nursing care protocol that allows optimal management of patients undergoing bariatric surgery at the IESS Ambato Hospital. This research employed both a quantitative and qualitative approach since the quality of care is linked to the level of knowledge and competence of the nursing staff in the care of bariatric surgery patients. The study sample consisted of 30 nurses and 44 patients, and being a limited population, all participants were included. Nursing staff interviews and patient surveys were conducted. <b>Statistics and Result:</b> The results revealed that 100% of the patients surveyed underwent a gastric sleeve without adequate preparation for this type of surgery. Therefore, the proposal of this research focuses on the implementation of a nursing care protocol that improves the quality of care provided to patients.</p>
CC License CC-BY-NC-SA 4.0	<p><b>Keywords:</b> Bariatric Surgery, Surgical Procedures, Patients, Psychological Support</p>

### 1. Introduction

Patient safety and recovery is the responsibility of all healthcare personnel. Nurses have a fundamental role in the care, protection and safe conduct of this. Bariatric surgery has positioned itself as the best alternative for the treatment of type I, type II and morbid obesity and their comorbidities, such as diabetes, hypertension problems, among others. According to research publications carried out by health management agencies, the current population is experiencing a negative nutritional transition, which is affected by economic, social and demographic changes. In Spain, it is estimated that the prevalence of overweight and obesity in children under 20 years of age amounts to 27% of men and 23.8% of women. In adults, the figure is much higher: 62.3% of men and 46.5% of women are overweight (Hermosillo et al., 2016). The Confidential National Study on Medical Outcomes and Death in Patients, an investigation carried out by public and private hospitals in the United Kingdom, analyzed the medical care received by more than 300 patients undergoing these procedures. It found that many did not receive sufficient advice and information to be able to adequately consent to operations.

A lack of medical care was also observed after surgery, the study says. In particular, it highlights the fact that patients had not always had specific knowledge of the procedure and that there is no psychological support (De Gordejuela et al., 2010). Obesity surgery has had an impressive development in the last 20 years, due to the need for effective and lasting treatment for this chronic epidemic disease. The introduction of the laparoscopic technique to bariatric surgeries contributed significantly to reducing complications and mortality. The most frequent operations in the world are gastric bypass, vertical gastrectomy, adjustable gastric banding and biliopancreatic diversion. These bariatric surgeries, their technique, complications and results are described (Argüelles et al., 2016). Regarding the degree of satisfaction of patients with the results of surgical procedures, Ruiz, Berrocal and Valero point out that these are more related to satisfaction in social and couple relationships, and body image, than to weight loss obtained.

Obesity is a chronic disease, in Ecuador it considerably increases the risk of suffering from different health problems, so it is considered a serious disease and must be treated aggressively. Bariatric surgery is the best treatment for severe obesity, also called morbid obesity. There are different bariatric procedures, each with its benefits and disadvantages. Bariatric surgery is safe, but because of the risks associated with obesity it is considered major surgery. For this reason, patients should be managed with the necessary caution; and prior comprehensive assessment to achieve the best results (Fernandez, 2021). Currently in Ecuador, approximately 1,000 surgeries are being performed annually with excellent results among all medical groups nationwide. This figure would be an important number and volume of interventions considering that before people did not know what bariatric surgery was and the benefits it provides for problems of obesity, hypertension, diabetes, among other pathologies, says the specialist (De Gordejuela et al., 2010). Bariatric surgery has positioned itself as the best alternative for the treatment of type I, type II and morbid obesity and their comorbidities, such as diabetes, hypertension problems, among others, he commented in (Hermosillo et al., 2016).

Bariatric surgery must be part of a comprehensive program, which is managed by a multidisciplinary group, composed of specialists in the areas of Sports Medicine, Clinical and Metabolic Nutrition, Gastroenterology, Clinical Psychology, Internal Medicine, Cardiology, Pneumology and Traumatology, which prepares the patient (preoperative management) and provides a good post-surgical follow-up, immediate and medium term, to control weight loss and better physical adaptation after your surgery (Argüelles et al., 2016). If a patient is operated and does not have a comprehensive and multidisciplinary treatment there are no good results. The fact that bariatric surgery is managed by a specialized group reduces the risks of processing and above all guarantees long-term results (Argüelles et al., 2016; Villamarín et al., 2020; Bastidas et al., 2020).

In the IESS Ambato hospital there is no protocol or guide for the management of patients with this type of surgery, therefore they are being treated like any other surgery, and that depending on the case and its diagnosis can become a high-risk surgery therefore if it is necessary to establish procedures according to these surgery that is performed and the application of a nursing protocol in the care of patients with bariatric surgery through a work methodology and through related standards in this way will allow us to perform the appropriate care and help us meet the needs of patients who have undergone surgery and help improve their health problem and the quality of the service provided in the surgery area of the IESS Ambato hospital.

## **2. Materials And Methods**

In the present research, different methods, techniques and instruments were used to carry out the study. These aspects are detailed below:

Theoretical methods:

Analytical-synthetic: This method was used to break down the object of study into parts and analyze the field of action affected by the problem, in order to make decisions regarding its solution and achieve the general objective of the research.

Inductive-deductive: This method allowed to identify the reasons that hinder the adequate nursing care to patients with bariatric surgery.

Empirical methods:

Scientific observation: Scientific observation was used to contribute to the characterization of nursing staff's knowledge in relation to bariatric surgery patients. Documentary analysis: An analysis of reports, archival documents, medical histories, among others, was carried out, which provided relevant information on the states of the health-disease relationship of the population group and the current conditions of care for patients with bariatric surgery at the IESS Ambato hospital.

Techniques:

Surveys: Surveys were applied to patients who had undergone bariatric surgery, their relatives as representatives and nursing and technical personnel involved in the research.

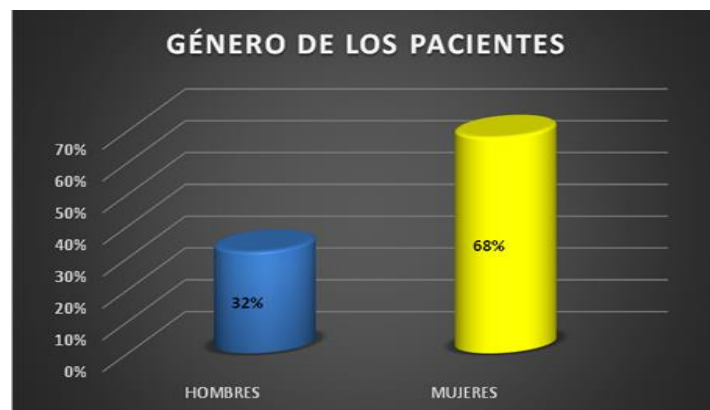
Instruments:

Questionnaires: Questionnaires were used for the construction of the surveys, mainly with closed questions.

Medical history: The medical history was considered an important instrument, since it is a legal document that contains information about the evolution of the patient, as well as the procedures and care provided during her hospital stay. These methods, techniques and instruments allowed the collection of valuable information to carry out the study on nursing care for patients with bariatric surgery, facilitating the obtaining of quantitative and qualitative data relevant for analysis and decision making. Measurement scales: Standardized measurement scales were used to evaluate specific variables related to nursing care, such as patient satisfaction, level of knowledge of nursing staff, postoperative quality of life, among others. These scales allowed quantitative and comparable data to be obtained. Importantly, the choice of techniques and instruments used was made in accordance with the research objectives and the information needed to answer the research questions. We sought to use rigorous and reliable methods to obtain valid and representative results. The combination of different methods, techniques and instruments in the research allowed to collect data in a comprehensive way, obtaining a more complete and accurate view of nursing care in patients with bariatric surgery. The analysis of these data will provide relevant information to improve care and develop more effective strategies in this field.

### 3. Results and Discussion

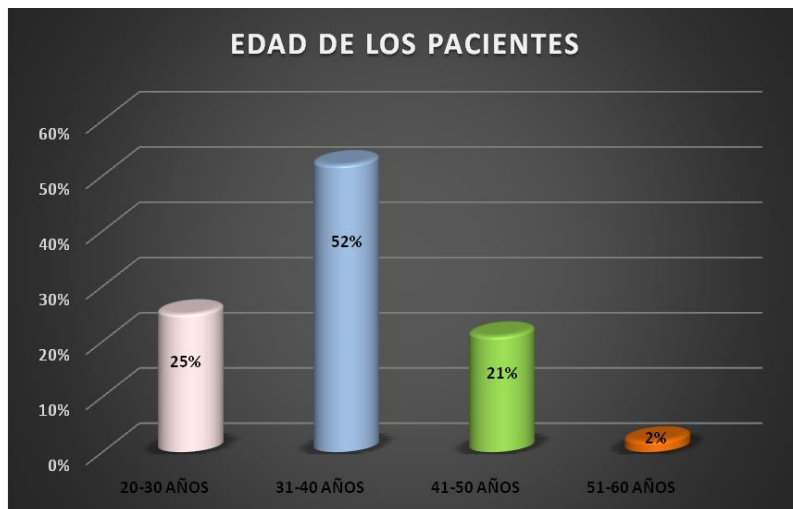
The survey was conducted to 30 nurses from the IESS Ambato General Hospital, and 20 patients undergoing bariatric surgery.



**Figure 1.** Gender of patients

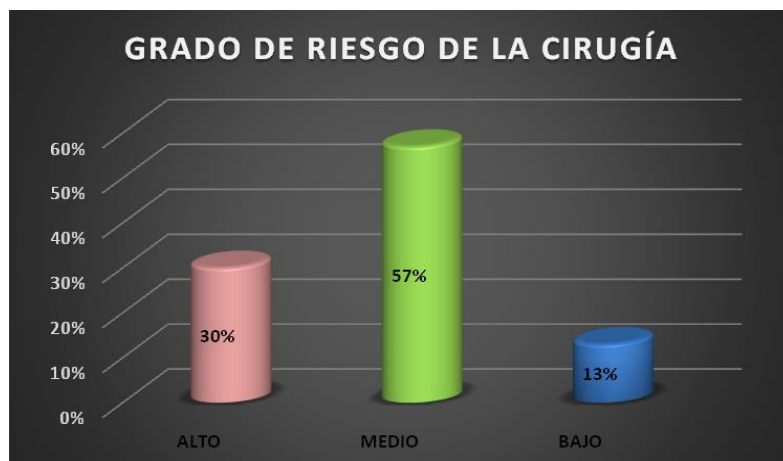
**Source:** Survey of patients undergoing bariatric surgery

Figure #1 presents the gender distribution of surveyed patients who underwent bariatric surgery. According to the data collected, it is observed that 68% of the patients surveyed are women, while 32% are men. This difference indicates a greater presence of women in the sample of patients who underwent bariatric surgery.



**Figure 2.** Age of Patients

52% of respondents undergoing bariatric surgery are in the age range of 31 to 40 years. These patients present health risks due to a family history of diabetes and hypertension, as well as a body mass index greater than 38kg.



**Figure 3.** Do you think bariatric surgery is risky surgery?

57% of respondents consider bariatric surgery to carry a medium risk, 30% consider it high risk and 13% low risk. Associated risks include anaesthesia, the surgery itself, possible nutritional problems and accentuation of psychiatric problems.



**Figure 4.** Did you receive psychological care before surgery?

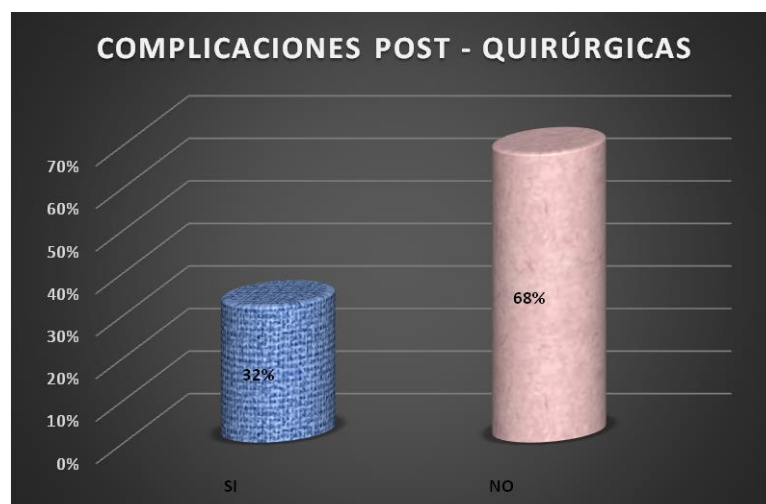
66% of respondents have not received adequate psychological preparation before bariatric surgery. They focus more on changes in eating habits and not on the manifestations of anxiety and lifestyle changes of the patient.

**Figure 5.** Do you think you were correctly informed about the type of procedure that was performed?



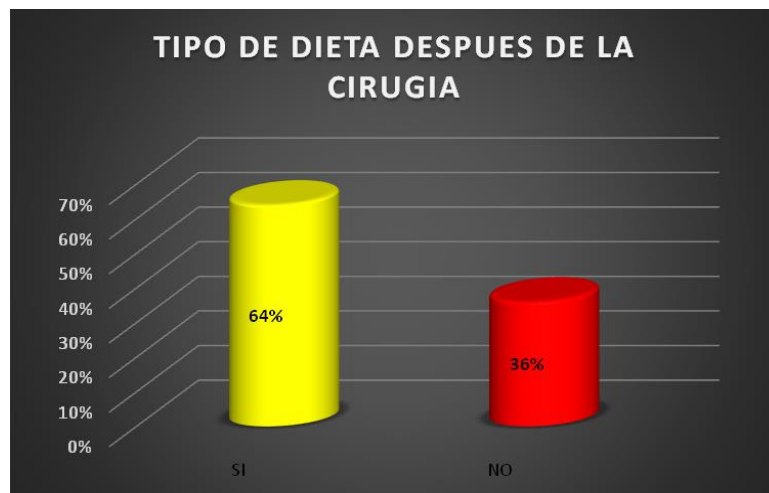
52% of the patients surveyed consider that they have not received adequate preparation from the nursing staff. This indicates that the nursing staff is not trained to provide the care required for patients undergoing bariatric surgery.

**Figure 6.** Do you think you were correctly informed about the type of procedure that was performed?



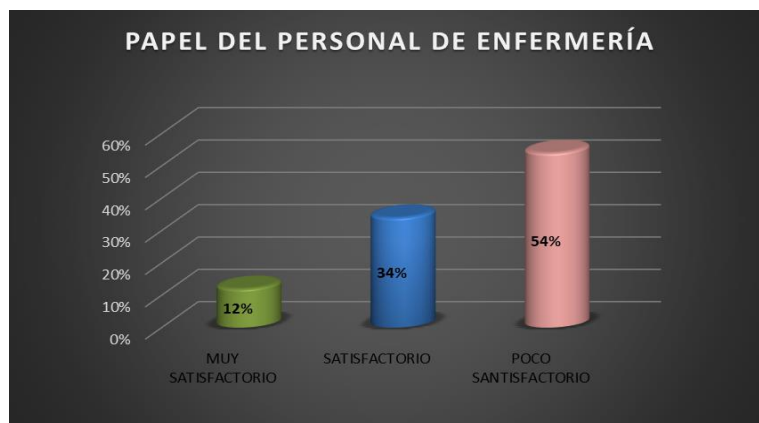
68% of patients surveyed have experienced no post-surgical complications so far. However, it is important to note that complications could arise in the future if proper lifestyle modification and individualized care are not performed.

**Figure 7.** Do you think that after your surgery you should have some kind of diet?



64% of patients surveyed consider it important to have a proper diet after bariatric surgery to test oral tolerance and gradually increase food intake, especially protein and nutritional supplements

**Figure 8.** How did the nurse work with you after your surgery?

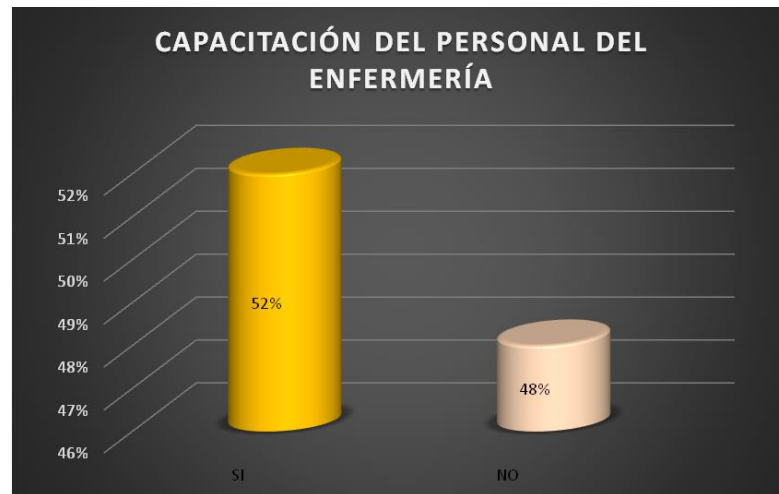


54% of patients not satisfied with care received after bariatric surgery.

surveyed are the nursing

It indicates that specific care for patients with bariatric surgery is not being provided by the nursing staff.

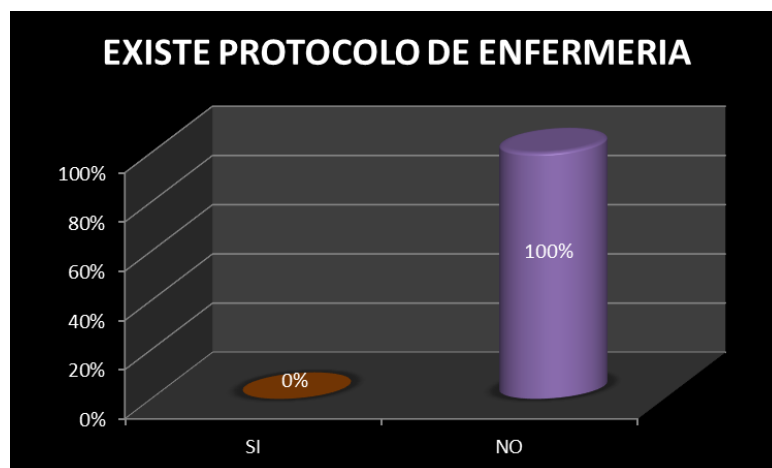
**Figure 9.** Do you think that the nursing staff is properly trained to care for patients with this type of surgery?



82% of patients surveyed indicate that nurses are not trained in specific care for patients with bariatric surgery. Suggests the need for further training of nurses in this field

**Staff Survey**

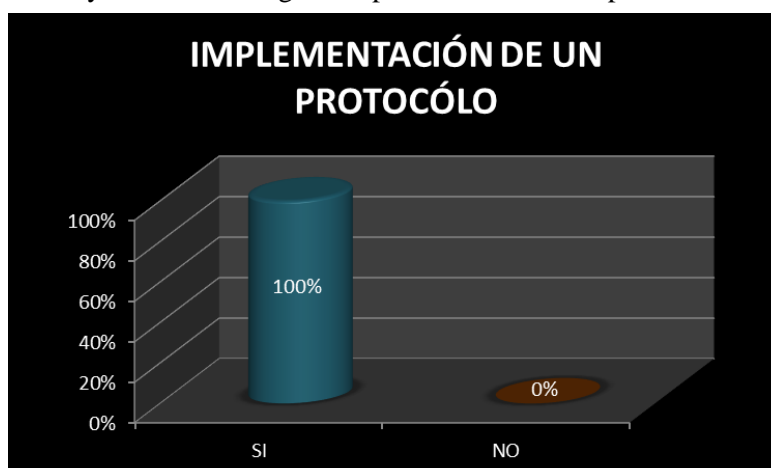
**Figure 10** Is there a protocol for nursing care of patients who perform bariatric surgery at the IESS Ambato Hospital?



100% of the nursing staff surveyed indicate that there is no care protocol for patients undergoing bariatric surgery at the IESS Ambato hospital.

This highlights the importance of developing a protocol to improve the care and attention provided to these patients.

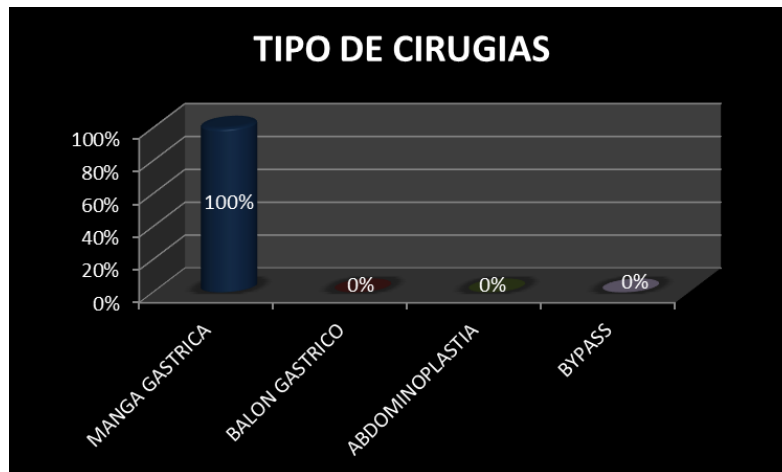
**Figure 11** Would you like nursing care protocols to be implemented in patients with bariatric surgery?



100% of the nursing staff surveyed agree on the need to establish a care protocol for patients with bariatric surgery.

It highlights the importance of having clear and specific guidelines to provide quality care.

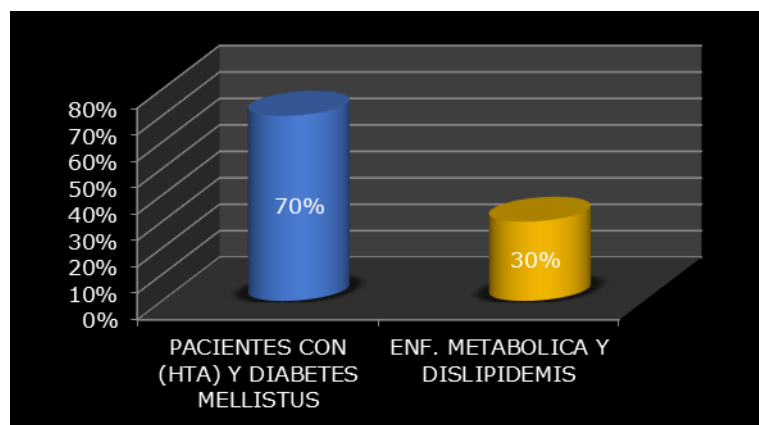
**Figure 12** What type of surgery is performed at IESS Ambato Hospital?



100% of the nursing staff surveyed indicate that patients undergo bariatric surgery because there are no other bariatric surgery options at IESS Ambato hospital.

Patients accept or reject the procedure after receiving information about it.

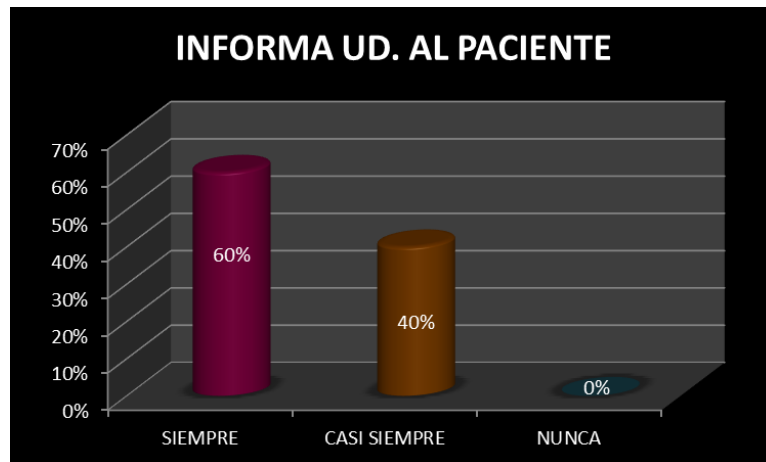
**Figure 13.** Which patients do you consider? What should be performed bariatric surgery?



70% of the nursing staff surveyed consider that the priority diseases that should be addressed are arterial hypertension (HTN) and diabetes mellitus. It suggests that patients with obesity, hypertension and diabetes mellitus would benefit from bariatric surgery to improve their quality of life.

**Figure 14** Do you adequately inform the patient about the existing risk of bariatric surgery?

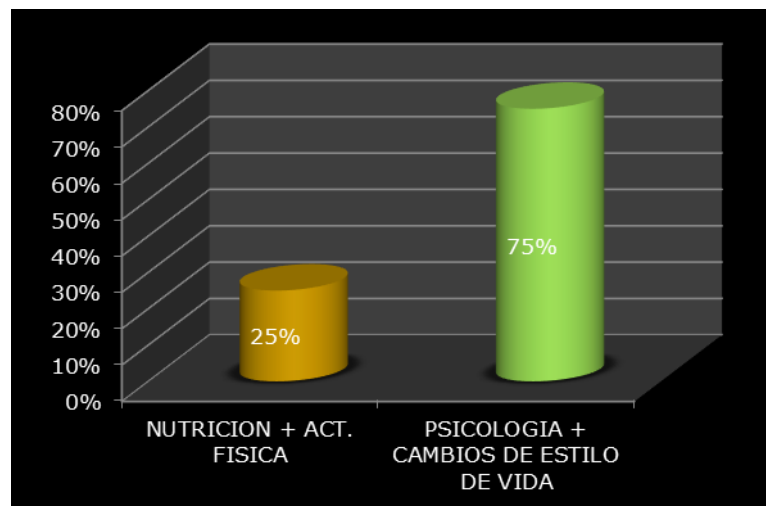




60% of the nursing staff surveyed consider that the necessary and appropriate guidance was provided before bariatric surgery.

The importance of providing complete and understandable information to patients before the intervention is highlighted.

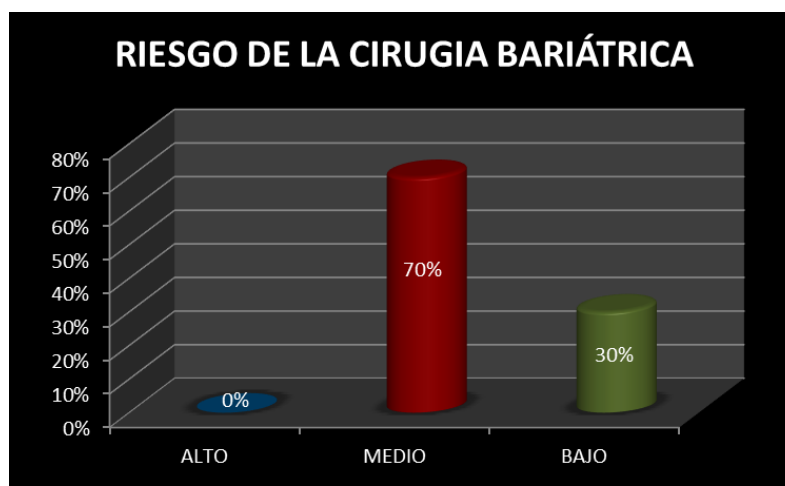
**Figure 15** What kind of preparation does the patient who is going to have bariatric surgery require?



75% of the nurses surveyed consider it important to provide psychological support to patients undergoing bariatric surgery.

The importance of helping patients understand and cope with lifestyle changes after surgery is recognized.

**Figure 16** Do that Bariatric risk?

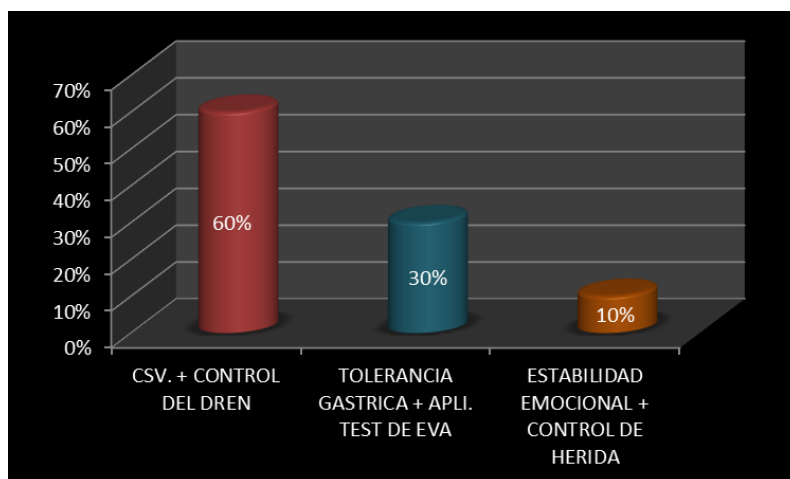


you consider Surgery is at

70% of the nurses surveyed consider bariatric surgery to be a medium risk.

The importance of providing adequate care according to established protocols to prevent complications is emphasized.

**Figure 17.** Within the nursing care that do you think should be provided to patients undergoing bariatric surgery?



60% of the nurses surveyed consider that the control of vital signs and the management of drains are very important in the care of patients with bariatric surgery.

The need to monitor vital signs and ensure adequate fluid drainage to prevent complications is highlighted. These survey results provide valuable information on various aspects related to bariatric surgery and nursing care.

In conclusion, the results of the survey and analysis indicate that there is a need to improve nursing care for patients undergoing bariatric surgery at the IESS Ambato hospital. Areas for improvement were identified in aspects such as adequate psychological preparation, training of nursing staff, implementation of specific care protocols and greater attention to the necessary care for these patients. It is essential to provide adequate preparation both psychologically and educationally, so that patients understand the changes in their lifestyle and can face them successfully. It is also necessary to train nurses in the specific care and needs of patients undergoing bariatric surgery, to provide quality care and minimize post-surgical complications. The implementation of a care protocol for patients with bariatric surgery is essential to standardize care and ensure appropriate and safe care. This includes vital signs monitoring, drainage management, and individualized care for each patient. In general, the importance of improving communication and interdisciplinary collaboration between the different health professionals involved in the care of patients with bariatric surgery, such as doctors, nurses, psychologists and nutritionists, is highlighted. This will allow to provide comprehensive care and

improve the quality of life of patients undergoing this type of surgery. Based on these results, it is proposed to implement the necessary improvements in nursing care for patients with bariatric surgery at the IESS Ambato hospital, with the aim of providing more complete, safe and satisfactory care for these patients.

The gender of patients undergoing bariatric surgery shows a predominance of women, which is consistent with previous studies that have shown a higher prevalence of obesity in women compared to men. The age of patients undergoing bariatric surgery is mainly concentrated in the range of 31 to 40 years, which may be related to the presence of health risk factors, such as a family history of diabetes and hypertension, and an elevated body mass index. This highlights the importance of identifying and treating obesity at early stages to prevent health-related complications (Maliza et al., 2020; Falcon et al., 2020). The perception of risk by patients shows that a considerable proportion consider bariatric surgery as medium or high risk. This highlights the need for thorough evaluation of patients, adequate preparation and selection of candidates, as well as careful follow-up to minimize the risks associated with the surgical procedure.

The lack of adequate psychological preparation of patients prior to bariatric surgery is a concern identified in the study. This suggests the importance of addressing not only changes in eating habits, but also manifestations of anxiety and lifestyle changes that patients must face. It is critical to provide comprehensive psychological support to ensure a successful transition to a healthy lifestyle after surgery (Vazquez et al., 2022; Estupiñán et al., 2021; Ricardo et al., 2019). The nursing care received by patients undergoing bariatric surgery appears to be unsatisfactory, according to the study's findings. Lack of specific care and nurse training related to this surgery could negatively affect patients' experience. It is crucial to improve the education and training of nurses in the specialized care of patients undergoing bariatric surgery to ensure quality and satisfactory care.

The lack of post-surgical complications in most of the patients surveyed is encouraging. However, it is important to note that the lack of complications in the immediate period after surgery does not guarantee an absence of long-term complications. It is essential that patients adopt a lifestyle change and follow medical recommendations to minimize risks and maintain long-term results (Lopez et al., 2020; Benalcázar et al., 2020). The importance of proper diet and consumption of nutritional supplements for patients undergoing bariatric surgery is recognized by the majority of respondents. This highlights the need for continuing education and specialized nutritional care to ensure adequate nutrient intake and optimal recovery after surgery.

Patient dissatisfaction with nursing care and lack of specific protocols for bariatric surgery in the hospital are problems identified in the study. These results support the need to develop and implement standardized care protocols that address the specific needs of patients undergoing bariatric surgery and improve the quality of care provided. Overall, the results provided in the graphs highlight the importance of addressing multidisciplinary aspects in the care of patients undergoing bariatric surgery, including comprehensive evaluation, psychological preparation, specialized nursing care, nutrition education and the establishment of care protocols. These findings support the need to improve the care and outcomes of patients undergoing bariatric surgery through comprehensive and personalized approaches.

#### **4. Conclusion**

A nursing care protocol was designed for a good direct management of the patient undergoing bariatric surgery at the IESS Ambato Hospital. Nursing care for patients undergoing bariatric surgery was theoretically substantiated. The nursing care provided to patients undergoing bariatric surgery is diagnosed. Nursing care protocol guidelines for patients undergoing bariatric surgery were established. A protocol was implemented to improve nursing care.

#### **References:**

Argüelles Argüello, A. B., & Valverde Zúñiga, A. (2016). Bariatric surgery: generalities. *Legal Medicine of Costa Rica*, 33(1), 145-153.

- Bastidas, N. P. E., Cabrita, C. M. M., Flores, D. F. C., & Castillo, M. R. D. (2020). Legal pluralism as an alternative system of law. A proposal from the critical paradigm. *University and Society*, 12(S(1)), 39–46.
- Benalcázar, M. M. B., Berti, L. A. C., & De Jesús Molina Gutiérrez, T. (2020). The fiscal instruction and the right of defense as a guarantee of the accused. *University and Society*, 12(S(1)), 158–166.
- De Gordejuela, A. G. R., Barrios, P. R., Cladera, B. L., del Barrio Martín, M. J., Gebelli, J. P., & Noguera, C. M. (2010). Bariatric surgery: thromboembolic prophylaxis. *Journal ROL of Nursing*, 33(6), 47–52.
- Estupiñán Ricardo, J., Leyva Vázquez, M. Y., Marcial Coello, C. R., & Figueroa Colin, S. E. (2021). Importance of the preparation of academics in the implementation of scientific research. *Conrad*, 17(82), 337–343. Available at: [http://scielo.sld.cu/scielo.php?pid=S1990-86442021000500337&script=sci\\_arttext&tlng=en](http://scielo.sld.cu/scielo.php?pid=S1990-86442021000500337&script=sci_arttext&tlng=en)
- Falcón, V. V., Castro Sánchez, F., & Fernández, A. J. R. (2020). Impact of Covid-19 on global tourism. *University and Society*, 12(S(1)), 207–216.
- Fernandez, N. K. (2021). Characterization of the role of succinate and its succinate receptor in the pathophysiology of obesity and type 2 diabetes. (Doctoral dissertation, Universitat Rovira i Virgili).
- Hermosillo-Cornejo, D. G., Arreola-Ramírez, D. A., Girón-Gidi, A. D., Álvarez-Hernández, D. A., & López-Caballero, C. (2016). Bariatric and metabolic surgery, a historical perspective since its inception. *The Resident*, 11(2), 88–95.
- López, J. R. R., Escobar, L. M. O., & Rosado, Z. M. M. (2020). Commercial strategies to improve management in Ecuadorian microenterprises post Covid-19. *University and Society*, 12(S(1)), 191–196.
- Maliza, M. E. M., Torres, D. F. T., Cejas, M. C. N., & Jaramillo, M. S. I. (2020). Violation of the citizen security right by sex workers due to lack of legal regulations. *University and Society*, 12(S(1)), 151–157.
- Ricardo, J. E., & Silva Vazquez, G. O. (2019). Sex education for parents of children with mental retardation, a way to consolidate it. *Revista Médica de la Universidad Técnica de Babahoyo*, 4(3), 137–144. Available at: <https://revistas.utb.edu.ec/index.php/magazine/article/view/685>
- Vazquez, M. Y. L., Ricardo, J. E., & Vega-Falcon, V. (2022). Artificial intelligence and its application in the teaching of Law. *Estudios y Desarrollo Social Cuba y América Latina*, 10, 368–380.
- Villamarín, S. M. G., Moncayo, J. C. N., & Borbor, A. M. C. (2020). Legal certainty and the paradigms of the constitutional state of rights. *University and Society*, 12(S(1)), 346–355.
- World Health Organization. (2021). Obesity and overweight. WHO, 5–8. [Internet]. June 9, 2021. Available at: <https://www.who.int/es/news-room/fact-sheets/detail/obesity-and-overweight>