

## Post-surgical nursing care in patients with total thyroidectomy

Cuidados de enfermería postquirúrgicos en pacientes con tiroidectomía total

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### ABSTRACT

Total thyroidectomy is the removal of the entire thyroid gland due to an alteration that affects the person's health status. Objective: To analyze nursing care in the post-surgical management of patients with total thyroidectomy. Methodology: A qualitative and descriptive study was carried out. This approach allowed us to explore the experiences and perspectives of nursing professionals, using theoretical sampling. The participants in this study were health personnel until information saturation was reached who had two years of experience in post-surgical care. Results: The majority of the articles investigated indicate that immediate postoperative nursing care focuses on maintaining ventilation and circulation, to control oxygenation, pain and level of consciousness and prevent shock. Conclusions: Nursing staff must act according to their ethics, applying basic care, scientifically supported by a protocol, to be able to provide timely care of quality, warmth and recovery.

**Keywords:** Thyroidectomy, Gland, Cancer, Follicular, Removal.

### RESUMEN

Tiroidectomía total, es la extirpación de toda la glándula tiroides debido a una alteración que afecta el estado de salud de la persona. Objetivo: Analizar los cuidados de enfermería en el manejo postquirúrgico de pacientes con tiroidectomía total. Metodología Se realizó un estudio cualitativo y descriptivo. Este enfoque permitió explorar las experiencias y perspectivas de los profesionales de enfermería, utilizando un muestreo teórico. Los participantes de este estudio fueron el personal de salud hasta alcanzar la saturación de la información que hayan tenido experiencia de dos años en el cuidado post quirúrgico. Resultados: Los artículos investigados en su mayoría nos indica que los cuidados de enfermería post operatorios inmediatos se centran en mantener la ventilación y la circulación, para controlar la oxigenación, dolor y el nivel de conciencia y prevenir el shock. Conclusiones: El personal de enfermería debe actuar según su ética, aplicando cuidados básicos, apoyando científicamente en un protocolo, para poder brindar una atención oportuna de calidad, calidez y en su recuperación.

**Palabras claves:** Tiroidectomía, Glándula, Cáncer, Foliculares, Extirpación.

## INTRODUCTION

Thyroid disorders are common endocrine diseases across all age groups. The most common types of thyroid disease are goiter, thyroid dysfunction (both hyperthyroidism and hypothyroidism), and thyroid cancer. Worldwide, the prevalence of hyperthyroidism ranges from 0.2% to 1.3%. In Europe and the United States, the prevalence of hyperthyroidism is almost similar (0.7% vs. 0.5%). Recently, in 2020, the American Cancer Society estimated 52,890 new cases (12,720 in men and 40,170 in women) and approximately 2,180 deaths (1,040 men and 1,140 women) from thyroid cancer. Likewise, several studies carried out in Brazil, Argentina and Ecuador reported a goiter prevalence of 8.6%, 2.5% and 1.7%, respectively (Alcázar Sánchez-Elvira, Bacian Martínez, del Toro Gil, & Gómez Tello, 2020) (Aversa et al., 2019).

In the last ten years, the incidence of thyroid cancer in Ecuador has experienced a notable increase, especially in women, with a range of 10 to 35 cases per 100,000 inhabitants, with papillary carcinoma being the most common. Currently, this type of cancer ranks third among the most common neoplasms in women and eighth in men in the country. In 2020, it is estimated that there were around 29,300 cases of cancer in Ecuador, a figure that is projected to increase to 53,700 by 2040. The relative proportion of patients with thyroid cancer compared to the total will decrease from 5.77% to 4.58% (Aversa et al., 2019) (Colombo et al., 2021).

It is important to note that, despite a projected 25% increase in population between 2020 and 2040, a 45% increase in thyroid cancer incidence is expected, indicating that there will be more cases than expected due to population growth. Regarding mortality, Ecuador has the highest rate with 1.2 cases per 100,000 inhabitants of the standardized rate, even surpassing Brazil, the country with the highest incidence, whose mortality rate ranks second to last among countries with thyroid cancer in the top 10 malignant tumors (Berta et al., 2019). (Cortés & Mendieta Zerón, 2019).

Faced with this problem, total thyroidectomy aims to completely remove thyroid tissue. This surgical procedure is characterized by the complete removal of the thyroid gland, and is performed in patients with thyroid carcinoma. A disease characterized by the presence of a malignant endocrine tumor derived from follicular epithelial cells in the thyroid gland, which proliferate until they become a cancerous mass. Similarly, this procedure is indicated in cases of Graves' disease with poor compliance with antithyroid drugs, toxic multinodular goiter, very large goiters, cosmetic deformity, and thyroid cancer (Eixerés Esteve et al., 2022). (Forero Saldarriaga, Puerta, & Correa Parra, 2020).

However, thyroid surgery rates have increased dramatically over the past three decades. Between 118,000 and 166,000 patients undergo thyroidectomy each year. In Latin American countries, a continuous increase in the percentage of patients admitted for total thyroidectomy relative to general surgery patients has been observed. These increases were (19.8%, 25.5%, 31.5%, 38.8%, and 44.4%) respectively, in the period from 2018 to 2022 (Berta et al., 2019).

Immediate postoperative nursing care focuses on maintaining ventilation and circulation, monitoring oxygenation and level of consciousness, preventing shock, and managing pain. The nursing team must frequently assess and document respiratory, circulatory, and neurological function. These are vital nursing functions, such as assessing the patient for potential or actual complications after surgery and understanding the most common complications that can occur in these patients. Early detection and rapid response are essential to ensuring safe nursing practice and positive patient outcomes. (Eixerés Esteve et al., 2022).

It is important to emphasize that postoperative nursing interventions directly influence patient recovery and subsequently impact their quality of life. Therefore, nursing management after thyroidectomy involves observing the patient's condition, assisting and cooperating with the medical team in managing and immediately addressing serious complications after total thyroidectomy (Forero Saldarriaga, Puerta, & Correa Parra, 2020).

Thus, the objective of this study is to analyze nursing care in the postoperative management of patients with total thyroidectomy in order to identify patterns, common challenges, and best practices, thus contributing to the continuous improvement of postoperative nursing care.

## METHODOLOGY

A qualitative, descriptive study was conducted to explore in depth the experiences, perceptions, and practices of nursing professionals in the postoperative care of patients undergoing total thyroidectomy. This methodological approach allowed us to capture the complexity of the phenomenon from a holistic perspective, focusing on the meanings attributed by the participants themselves (Taylor et al., 2016).

A theoretical sampling was used, intentionally selecting ten nursing professionals who work in second and third level health care institutions in Ecuador (Flick, 2014).

*Inclusion criteria*

- Nurses with a minimum of 2 years' experience in post-surgical care of patients undergoing total thyroidectomy.
- Professionals working in 2nd and 3rd level health institutions.
- Volunteers willing to participate in semi-structured interviews to share their experiences and knowledge.

*Exclusion criteria*

- Nurses who do not perform care activities.
- Nursing assistants
- Professionals who work at the primary care level.
- Individuals who do not agree to actively participate in interviews or share information about their practices and experiences in post-surgical care.

For data collection, a semi-structured questionnaire was designed and validated, consisting of 11 open-ended questions aimed at exploring five key thematic categories related to the postoperative care of these patients. The interviews, which were conducted in person and confidential, were audio-recorded with the participants' express permission and subsequently transcribed verbatim for analysis (Kvale & Brinkmann, 2015).

The analysis process was developed through inductive coding, which allowed for the identification of emerging categories and subcategories directly from the data. Coding was conducted by two researchers independently, followed by a triangulation process to ensure the reliability and internal validity of the analysis (Nowell et al., 2017). Data saturation was reached at the end of the tenth interview, at which point no new codes or relevant themes emerged, indicating that the data collected were sufficient to comprehensively describe the phenomenon under investigation (Guest et al., 2006).

Throughout the research process, the bioethical principles established in the Declaration of Helsinki were respected. Each participant signed an informed consent form, which explained the objectives, procedures, benefits, and potential risks of the study, as well as the right to withdraw at any time without repercussions. Confidentiality was protected through the use of alphanumeric codes and the omission of real names in transcripts and quotes. The interviews were conducted in a respectful environment, ensuring the participants' comfort and emotional openness to encourage the authentic expression of their experiences.

Finally, the results were organized into core themes that synthesize the findings, integrating the various individual perspectives into a coherent collective vision. This approach allowed for the development of a deep, contextualized, and grounded understanding of the practices and challenges faced by nurses in the postoperative care of patients with total thyroidectomy.

## RESULTS

### Category 1: Care Protocols

#### *1. What standard protocols do you follow for postoperative care in patients with total thyroidectomy?*

At the beginning of this interview, participants were asked if they were aware of nursing care protocols for patients with total thyroidectomy. Most interviewees stated that they do not always follow the protocols. (Aida): "There are few times when we have followed the protocol correctly." (Marco): "On my shift, I try to follow the rules and parameters of the protocols for the patient's proper recovery." (Alexander): "Personally, I try to be as impartial as possible with the protocols." (Mónica): "I follow the protocol, but not always. There are days when I, an assistant, and the resident physician are on duty, and there are patients. During the day, the assistant helps me with some things, but always under my supervision." (Gissela): "The protocol we have is very good, but there are times when it cannot be followed to the letter, but discipline is always maintained for the patient's proper recovery."

#### *2. Do you customize care protocols according to individual patient needs?*

On the other hand, the interviewees choose to follow the same protocol for all patients. (Rubí): "We choose to follow the same protocol for all patients in order to save time and simplify the process." (Liliana): "In my case, I follow the same

protocol for all of them." (Lourdes): "Yes, the same protocol, but sometimes it changes slightly because there are patients of different ages." (Elsa): "There are times when I do follow the same protocol, but on many occasions I don't, because, for example, we are involved in other activities and there are things that we overlook and we don't comply with the protocol."

### *3. What additional measures do you take to ensure compliance with established protocols?*

In another context, four of the interviewees agreed that they try to research their protocols. (Rubí) "I personally try to research protocols and put them into practice, but not when there are many patients." (Lurdes) "In my free time, I review and research updated protocols, things that interest me more in the world of care." (Elsa) "Due to my experience and the years I've worked in this service, I haven't really looked for strategies, but I do try to save time in every aspect and provide good care to the patient."

(Aida) "I really don't take any additional measures because sometimes there's no time due to having too many patients." (Marco) "None because the protocol is hardly even followed correctly." (Alexander) "Yes, I do take measures, for example, when I'm half free I try to follow the protocol to the letter." (Leandro) "No measures, I just try to be efficient in my work, providing the appropriate care to each user who is in recovery." (Mónica): "No measures, I still follow the same protocol as always." (Gissela): "It's not that valid, but I try to research, watch videos, and stay up to date on something to see strategies on how to comply with the agreed protocol."

## **Category 2: Challenges**

### *1. What are the most common challenges you face when providing postoperative care to patients with total thyroidectomy?*

The interviewees' responses highlight that their challenge was pain control." (Rubí): "Pain management, the complexity and variability in patients' perception of pain, as well as the limitation in exploring strategies beyond pharmacological management. (Liliana) "The challenge I have had has been pain management, even with pharmacological treatment." (Lourdes) "My challenge has been trying to calm the patient when they are in severe pain." (Elsa): "The challenge I have experienced the most has been pain management." (Alexander) "For me, the worst challenge I have had is pain management after having already given pharmacological treatment." (Leandro) "It has definitely been pain management for the patient, it is something desperate, knowing that care and medication are being given and not being able to control the pain." (Mónica) "My biggest challenge in that service was pain management. I worked there for a long time, and it's incredibly frustrating to know that you can't control the pain with proper care or treatment strategies. That's the biggest challenge I've ever faced."

However, three people agreed on emotional support (Aida): "My challenge was to make him understand that, at this stage, it is not the same as when he was healthy, without any surgical openings." (Marco): "In the mental health field (Gissela): "My challenge was to control him and make him calm down, when patients were already half recovered they wanted to do things that were not possible on their own, to make them understand that recovery takes time."

### *2. How do you handle unforeseen challenges that may arise during the recovery process?*

At this point in the interview, an active commitment to collaboration between different specialties, allowing for open discussion and the integration of diverse perspectives, is suggested. Four of the ten interviewees indicated that they provide more appropriate management. (Leandro): "In my case, I do what is within my reach, but more is having an open conversation with the patient." (Mónica): "I have always tried to act in the best possible way and do what is in my hands." (Liliana): "I have tried to act in the best possible way and act so that there are positive results in the care." (Rubí): "I have always acted in the best possible way and have maintained appropriate communication with the patient."

## **Category 3: Strategies**

### *1. What strategies have you implemented to improve patient recovery after total thyroidectomy?*

Regarding this section, participants were asked about the strategies implemented to improve patient recovery after total thyroidectomy. Most of the interviewees reported that they accept programs provided by the hospital. (Rubí) "We focus

on early mobilization and postoperative education programs for both patients and their families." (Liliana) "One of the most important strategies is the nutrition program for patients, indicating the diet they should follow for the benefit of their recovery." (Lourdes) "We consider the inclusion of postoperative education programs for their speedy recovery, both physical and mental." (Elsa) "Educate the patient that they cannot make sudden and strenuous movements since these can cause postoperative complications, so objects should be within the patient's reach."

(Aida) "Provide information to the patient about the medications they will be prescribed and the benefits they provide." (Marco) "Monitor for possible signs of infection that could occur in the incision area, which could delay recovery." (Alexander) "Inform the patient that the surgical wound area has a protective dressing that should only be changed if it gets wet or for necessary reasons." (Vinicio) "Teach the patient that it is normal to feel discomfort in the wound area due to the surgery performed, which will prevent them from moving normally." (Mónica) "Provide emotional support to patients and their families because the type of surgery can cause stressful situations that affect their health." (Gissela) "Establish a bond with the patient where there is better service and individualized care for each patient through the hospital's care protocols."

## *2. How do you collaborate with other healthcare professionals to implement and adjust care strategies?*

When discussing how they collaborate with other healthcare professionals, the interviewees stated that the strategy is training. (Liliana) "We constantly train to improve care strategies for patient care." (Lourdes) "The healthcare team members express their perspectives from their different areas of expertise to provide better patient care." (Elsa) "Literature reviews are conducted and discussed, and the best strategic methods are adopted to ensure that the patient's health status does not present complications." (Aida) "Each of the activities performed by each professional is constantly reviewed so that they can be managed appropriately without affecting their health."

## **Category 4: Quality of Care**

### *1. How do you evaluate the quality of care you provide to patients after a total thyroidectomy?*

In the interview conducted with each of the participants, where the question was asked about how they evaluate the quality of care provided to patients, five of them reported that surveys and interviews are conducted and applied. (Liliana) "Interviews with the patient where they can express their views and suggestions regarding the quality of care." (Lourdes) "Users who disagree with the nursing care they receive will show symptoms of conflict, dissatisfaction, and tension, so their displeasure will be evident." (Elsa) "Healthcare personnel are evaluated to measure their knowledge and the quality of services provided." (Aida) "Supervisions are carried out to ensure that staff activities are carried out appropriately and that patients are satisfied with the care received." (Marco) "Based on the results obtained after the care provided, feedback can be provided to address any deficiencies."

### *2. What are the key indicators you consider to measure the quality of post-surgical care?*

Regarding key indicators, five of the interviewees reported patient satisfaction with care. (Rubí) "Patient satisfaction: This indicator reflects the patient's experience and perception of the care received, providing valuable information on perceived quality and overall satisfaction." (Liliana) "Recovery time: Measuring recovery time is an objective indicator that can provide information on the effectiveness of care strategies and the patient's ability to return to their normal functional health." (Lourdes) "Effectiveness of pain management: This indicator focuses on the ability of post-surgical care to effectively manage patient pain, a critical component of postoperative recovery and quality of life." (Elsa) "User satisfaction: This reflects the patient's experience with the care received." (Aida) "Treatment response: This reflects whether the activities performed are supportive or delay recovery."

## **Category 5: Interdisciplinary Collaboration**

### *1. Do you collaborate with other members of the healthcare team, such as surgeons and specialists, to ensure comprehensive post-surgical care?*

On the other hand, regarding collaboration with other members of the healthcare team, five of them indicated that they do. (Leandro): "Yes, because we are a team and the perspective has always been to provide better care and be a united

group." (Mónica): "Yes, I have collaborated with the entire team." (Liliana): "There are things I haven't known, and with good communication and collaboration with the team, I have learned a lot." (Alexander): "Yes, I have always been open to collaborating with any of my colleagues." (Aida): "I have collaborated with my entire team and have learned a lot from them."

*2. How do you manage the challenges that may arise in interdisciplinary collaboration and ensure effective communication between different healthcare professionals?*

Regarding the management of issues that may arise in interdisciplinary collaboration, three of the interviewees emphasized that communication is a very important source. (Vinicio) Conduct motivational talks with all healthcare professionals to maintain a positive attitude and manage problems as best as possible, preventing them from turning into conflicts. (Mónica) Teach courses on effective communication, teamwork, and leadership to address conflicts. (Gissela) Conduct recreational activities among professionals to encourage interaction and participation.

## DISCUSSION

Postoperative nursing care in patients with total thyroidectomy shows a certain lack of rigorous commitment to established protocols. The tendency to follow the same protocol for all patients, with the aim of saving time and simplifying the process, raises concerns about the consistency and updating of staff in relation to established procedures (Jara Orna, Bermeo Villacrés, Rosero Miranda, & Vega Díaz, 2022). The lack of regular training, according to the perception of those interviewed, could be a contributing factor to this lack of commitment (García & Batista, 2021) (Govil et al., 2023).

Variability in pain responses is identified as one of the most common challenges in providing postoperative care to patients with total thyroidectomy. The unpredictability of pain management is linked to the need for personalized strategies. Research supports individualized pain management strategies to improve patient satisfaction and treatment efficacy (Gutiérrez Rodríguez, 2022) (Kania et al., 2019).

Open communication stands out as a strategy for addressing unexpected challenges during the recovery process. Holding regular meetings to address these challenges and adjusting care plans accordingly suggests a proactive and collaborative approach. Studies support the importance of effective communication among care team members to improve adaptability and effectiveness in unforeseen situations (Luo, Wang, Yuan, & Guo, 2021).

Regarding the strategies implemented to improve recovery, a focus on early mobilization, postoperative education programs, and an emphasis on nutrition are mentioned. Early mobilization is highlighted as a recognition of the importance of physical activity to improve circulation and reduce the risk of complications related to immobility. Previous studies have shown that early mobilization and education can accelerate recovery and reduce postoperative complications (Zhang, Li, Li, & Chen, 2020) (Martínez, Concepción, & Salas, 2023).

The assessment of the quality of postoperative care after total thyroidectomy is carried out using several strategies, including regular patient satisfaction surveys. This approach reflects an active consideration of patient experience and perception as key quality indicators. The literature, represented by studies, supports patient satisfaction as a crucial indicator of the quality of postoperative care (Taheriniya et al., 2021) (Merchan et al., 2021).

Collaboration with other healthcare professionals, such as surgeons and specialists, emphasizes a coordinated approach where each team member contributes their specific knowledge and skills to provide comprehensive care (Mero et al., 2021). The existing literature, represented by research, advocates for interdisciplinary collaboration to improve postoperative outcomes (Real et al., 2021).

Although complications after thyroidectomy are rare, their consequences can be life-threatening. These include hypothyroidism, damage to or inadvertent removal of the parathyroid glands, resulting in hypoparathyroidism and hypocalcemia, hemorrhage, injury to the recurrent or superior laryngeal nerve, and wound infection. In addition, patients often experience neck discomfort such as neck pain, neck tension and pressure, and difficulty with neck movement (Pinzón et al., 2022).

This is because the most common complications are recurrent laryngeal nerve injury, hypoparathyroidism, bleeding, and thyroid storm. Furthermore, several factors can influence postoperative complications, such as patient comorbidities, the type of surgical treatment performed by the surgeon, and intrinsic factors of the disease such as the presence of thyroid neoplasia and toxic goiter (Real et al., 2021).

Monitoring for these complications then becomes the primary goal of postoperative care (Pontin et al., 2019). Studies have highlighted that nursing staff should monitor the surgical site for excessive bleeding, frequently check the wound

dressings and the skin of the back, neck, and shoulder, and also check surgical drainage for blood and observe for swelling around the wound site (Qin et al., 2021).

### Limitations and future studies

Research findings on postoperative nursing care in patients with total thyroidectomy, although valuable, are subject to certain limitations that must be acknowledged. First, sample representativeness could be a limiting factor, as the generalizability of the results could be limited if the sample is small or specific to certain healthcare settings. Furthermore, there is the possibility of response bias, as healthcare professionals may present their practices in a more favorable light than they actually are. The lack of quantification in the assessment of care quality is also a limitation, as the inclusion of specific quantitative data could strengthen the validity of the findings (Taheriniya et al., 2021).

Regarding future research, we suggest further exploring the impact of ongoing training on engagement and adherence to postsurgical care protocols. Comparative evaluations of tailored pain management protocols with more standardized approaches could provide a deeper understanding of the effectiveness of such strategies. We also propose specifically evaluating the impact of strategies such as early mobilization, postoperative education programs, and an emphasis on nutrition on recovery outcomes through quantitative analyses. Finally, a detailed exploration of how cultural and organizational factors influence open communication and interdisciplinary collaboration could offer valuable insight into the adaptability of these approaches in different healthcare settings. Addressing these limitations and suggested areas of research will contribute to strengthening the knowledge base in the field of postsurgical care, thereby driving continuous improvements in the quality of care.

### CONCLUSION

In the context of improving postoperative nursing care in patients undergoing total thyroidectomy, three key conclusions emerge. Among them, the prevailing need to implement ongoing training programs for nursing staff stands out. These programs should address the lack of rigorous commitment to established protocols by providing regular refresher sessions and specific training in best practices for postoperative care.

The development of personalized pain management protocols for patients undergoing total thyroidectomy underscores the importance of establishing individualized approaches based on ongoing assessments of each patient's pain perception. Implementing pharmacological and nonpharmacological strategies tailored to each individual's specific needs can significantly improve the effectiveness of pain management and contribute to a more positive postoperative experience.

Promoting interdisciplinary collaboration and effective communication among healthcare professionals, including nurses, surgeons, and specialists, is essential. Participation in interdisciplinary meetings, sharing best practices, and adapting care strategies based on the team's collective experience are essential components. Fostering a culture of open communication will allow for proactively addressing unexpected challenges during the recovery process and collaboratively adjusting care plans.

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