



University of Basrah

College of Nursing

Nurses' Knowledge and Attitudes towards Thyroidectomy in Al-Basrah Governorate

A Research Project

By students

Abbas Hussain Abboud

Ali Mahdi Hussain

Ali Hussain Ali

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Supervised by

Assist. Lecturer

Ali Malik Tiryag

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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

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Supervisor Certification

I certify that this research project (Nurses' Knowledge and Attitudes toward Thyroidectomy in Al-Basrah Governorate) 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.

Supervisor

Assist. Lecturer

Ali Malik Tiryag

2021-2022

Dedications

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

وها أنا اليوم أختتم بحث تخرجي بكل ما لدي من همة ونشاط

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

وأبي، أصدقائي و أساتذتي المبدلين.

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Abstract

Background: Thyroidectomy is one of the most common necks, and endocrine surgeries performed today; because of technological advances in thyroid surgeries, the mortality and morbidity rates are low, but some long-term complications that occur post thyroidectomy continue to represent a health and social problem.

Objectives: This study aimed to assess nurses' knowledge and attitudes toward thyroidectomy and find the relationship between nurses' knowledge and attitudes toward thyroidectomy and their demographic characteristics such as (age, gender, level of education, years of experience, and training course).

Methodology: A descriptive study on nurses' knowledge and attitudes toward thyroidectomy in (Al-Sader Teaching Hospital, Al-Faiha Teaching Hospital, Al-Basrah Teaching Hospital, Abi Al-Khasib General Hospital, Umm Qasr General Hospital, Al-Zubair General Hospital, Al-Shifaa Hospital, and Al-Mawani Teaching Hospital) in Al-Basrah Governorate. The study period was extended from the 15th of November 2021 to the 1st of April 2022. Purposive (non-probability) sample of (200) nurses. To determine the content validity of the study, (12) 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 (66.5%) of studied nurses had poor knowledge about thyroidectomy, (14.5%) of nurses had moderate knowledge, and (19%) of nurses had good knowledge. Also, this study showed the majority of the nurses (70.5%) have poor attitudes about thyroidectomy (16.5%) of them have moderate attitudes, and (13%) of them have good attitudes.

Conclusions: The present study concluded that the nurses have moderate knowledge and poor attitudes about thyroidectomy.

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

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List of Abbreviations	
Terms	Meanings
ALT	Alanine aminotransferase
AST	Aspartate aminotransferase
BPM	Beats Per Minute
BUN	Blood Urea Nitrogen
CBC	Complete Blood Count
ECG	Electrocardiogram
Et. al.	And Others
HIV	Human Immunodeficiency Virus
ICU	Intensive Care Unit
IV	Intravenous
NIM	Nerve Integrity Monitor
PCA	Patient Controlled Analgesia
PWH	People With HIV
SPSS	Statistical Package for Social Science Program
T4	Thyroxine
T3	Triiodothyronine
TSH	Thyroid Stimulating Hormone
VTE	Venous Thromboembolism

Chapter One

Introduction

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

Over 150,000 thyroidectomies are performed annually in the United States (Johnson et al., 2009). The main indications for thyroidectomy include the presence of asymptomatic, indeterminate, or suspicious thyroid nodule, a goiter, Graves' disease, or thyroid cancer (Mathur, 2021).

Surgery to remove all or part of the thyroid gland is used for Graves' disease that does not respond to other therapies. It is also used when a large goiter causes tracheal or esophageal compression. Removal of all (total thyroidectomy) or part (subtotal thyroidectomy) of the thyroid tissue decreases the production of thyroid hormones. After a total thyroidectomy, patients must take lifelong thyroid hormone replacement (levothyroxine) (Harding et al., 2020).

Major complications after thyroid surgery are neck hematoma, postoperative hypocalcemia caused by hypoparathyroidism, postoperative vocal cord paresis/paralysis due to injury to the recurrent laryngeal nerves, and postoperative surgical site infection (Salem, 2022).

Providing information and assisting the patients in making the right health decisions and motivating the patient to learn about their health consider a vital nursing role, so implementation of thyroidectomy nursing care guidelines for patients may cause improve patient outcomes by promoting patient compliance with medical treatment regimens and improving healthy lifestyles (Sulaiman & Al- Saigh, 2020).

1.2. Importance of the Study

About 200 to 800 million people worldwide have some form of thyroid disease. Thyroid disorders are very common in the United States, with over 20 million people under treatment (Hassan, 2012). Thyroid operations have increased dramatically and reached threefold over the past three decades ago; in the United States, 118 - 166 thousand patients undergo thyroidectomy for benign or malignant thyroid tumors (Chandrasekhar et al., 2013). While in England, over 13 thousand thyroid operations are done annually (Stedman et al., 2018). It is usually performed for both-sex clients but is more female (Liu et al., 2015). While in Egypt, reviewing the medical records and statistical data of the general surgical departments revealed a continuous increase in the percentage of patients admitted for thyroidectomy concerning general surgical patients. It was 19.8%, 25.5%, 31.5%, 38.8%, and 44.4%, in the period between "2004 to 2008" respectively (Hassan, 2012). Over the past twenty-five years, the incidence of malignant thyroid tumors has steadily increased. Therefore, thyroidectomy rates have increased (Davies & Welch, 2014).

Thyroidectomy is one of the most common necks and endocrine surgeries performed today; because of technological advances in thyroid surgeries, the mortality and morbidity rates are low, but some long-term complications that occur post thyroidectomy continue to represent a health social problem (KG & Shantharam, 2013). Thyroid carcinoma considers the most common endocrine disorder that needs thyroidectomy with a very good survival outcome (Kandil et al., 2013).

Preoperative and postoperative nursing care is important because inadequate preparation of patients for thyroid surgery and non-proper postoperative nursing care seriously influences patients' recovery directly, put patients' lives in danger, and then affects the patient's quality of life. Therefore,

the nursing management before and after thyroid surgeries is carried out by observing the patient condition, assisting and cooperating with the surgeon for management, and aggressively dealing with severe post thyroidectomy complications (Miller, 2007).

1.3. Statement of the problem

Nurses' Knowledge and Attitudes toward Thyroidectomy in Al-Basrah Governorate.

1.4. Objectives of the Study

- 1- To assess the level of nurses' knowledge about thyroidectomy.
- 2- To find the relationship between nurses' knowledge about thyroidectomy and their demographic characteristics (age, gender, marital status, level of education, and years of experience).
- 3- To assess the level of nurses' attitudes about thyroidectomy.
- 4- To find the relationship between nurses' attitudes about thyroidectomy 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 thyroidectomy 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 thyroidectomy, its complications, and pre and post-operative nursing care.

1.5.3. Attitudes**1.5.3. a. Theoretical definition:**

Attitude is the manner, disposition, feeling, or position toward a person or thing (Burton and Ludwig, 2015).

1.5.3. b. Operational definition:

Nurses' beliefs and opinions about thyroidectomy and its complications.

1.5.4. Thyroidectomy**1.5.4. a. Theoretical definition:**

Thyroidectomy is a surgical procedure that aims to remove all or pieces of the thyroid gland depending on the reason for surgery (El-Shenawie et al., 2021).

1.5.4. b. Operational definition:

Procedures for thyroid disorders include removing all or part of the thyroid gland.

Chapter Two

Review of Literature

Chapter Two**Review of Literatures****2.1. Historical Background of Thyroidectomy**

Thyroid surgery was practiced as far back as 500 A.D (Zizic, 2003). Historical documentation from Salerno, Italy, shows that in the 12th and 13th centuries, surgeries were performed on patients with enlargement of the thyroid gland. Most of the patients who underwent surgery died or had complications (Radu Mihai et al., 2009). With a very high mortality rate due to per- and postoperative bleeding, thyroid surgery was banned by the French Academy of Medicine as late as the mid-19th century (Sarkar et al., 2016). Many surgeons, such as Dieffenbach from Germany, Liston from the United Kingdom, and Gross from the United States, criticized thyroid surgery as “horrid butchery.” They demanded that surgeons performing such operations be rebuked. They declared that “no honest and sensible surgeon would ever engage in it” (Hannan, 2006).

Meanwhile, surgeons such as Theodor Billroth and his brilliant student Theodor Kocher changed thyroid surgery. By introducing antisepsis and hemostasis in thyroid surgery, Billroth succeeded in minimizing the mortality rate in thyroid surgery to around 10%. Kocher developed the surgical technique and lowered the mortality rate from 12.6% in 1870 to 0.2% in 1898 (Zizic, 2003). He was later praised as “The Father of Modern Thyroid Surgery” (Vieni & Latteri 2005) and awarded the Nobel prize in 1909 (Ignjatović, 2003). Bern, where Kocher lived, became the world’s capital for thyroid surgery. Kocher also discovered the endocrine function of the thyroid gland together with Jaques-Louis Reverdin of Geneva. In 1883 Kocher presented a paper on the adverse effects of thyroidectomy. He termed cachexia strumiprivia, showing

that the thyroid gland has an important function in the whole body's metabolism. William Halsted, who observed both Billroth's and Kocher's operations, described Kocher's operative technique on the thyroid as bloodless, removing most thyroid tissue and preserving the surrounding structures. In contrast, Billroth's operation technique used a more rapid approach resulting in the injury of surrounding structures and larger retained segments of the thyroid gland. The latter resulted in Billroth's patients having fewer problems with myxoedema (severe hypothyroidism) postoperatively compared to Kocher's patients (Zizic, 2003).

At the end of the 19th-century, thyroid surgery was no longer "horrid butchery" nor "deserving of rebuke and condemnation." It is also worth recalling the surgeons William Halsted, Johann von Mikulic, Charles Mayo, George W. Crile, Rank Lahey, Thomas P. Dunhill, F.A. Collier, and 14 A.M. Boydena for their contributions to minimizing complications during and after thyroid surgery (Hannan, 2006). Since the end of the 19th century, contributions such as a better understanding of the anatomy and function of the thyroid and parathyroid glands, along with the efforts to preserve parathyroid glands and the integrity of the recurrent laryngeal nerve, have been made (Sarkar et al., 2016). The superior laryngeal nerve was revealed and described in 1935 when the world-famous opera singer Amelita Galli-Curci underwent thyroid surgery and unfortunately lost her soprano voice, which adversely impacted her singing career (Marchese-Ragona et al., 2013).

Scientific reports about this complication were published at the end of the century, and preserving the superior laryngeal nerve was advocated (Kark et al., 1984). Since the middle of the 20th century, many studies worldwide have been performed to recognize and better understand the risk factors to avoid complications during and after thyroid surgery. These efforts have certainly

resulted in a further reduction of pre- and postoperative complications (Sakorafas, 2010).

2.2. Anatomy and Physiology of Thyroid Gland

The thyroid gland—the largest endocrine gland—is a butterfly-shaped organ located in the lower neck, anterior to the trachea. It consists of two lateral lobes connected by an isthmus. The gland is about 5 cm long and 3 cm wide and weighs about 30 g. The blood flow to the thyroid is very high (about 5 mL/min per gram of thyroid tissue), approximately five times the blood flow to the liver. The thyroid gland produces three hormones: thyroxine (T₄), triiodothyronine (T₃), and calcitonin (Hinkle and Cheever, 2018).

The thyroid gland's secretion of T₃ and T₄ is controlled by TSH (Thyroid Stimulating Hormone, also called thyrotropin) from the anterior pituitary gland. TSH controls the rate of thyroid hormone release through a negative feedback mechanism. TRH (Thyroid Releasing Hormone), secreted by the hypothalamus, modulates on TSH release from the pituitary. Environmental factors, such as a decrease in temperature, may lead to increased secretion of TRH, resulting in elevated secretion of thyroid hormones (Hinkle and Cheever, 2018).

The main function of the thyroid hormone is to control cellular metabolic activity. T₄, a relatively weak hormone, maintains body metabolism steadily. T₃ is about five times as potent as T₄ and has more rapid metabolic action. These hormones accelerate metabolic processes by increasing the level of specific enzymes that contribute to oxygen consumption and altering the responsiveness of tissues to other hormones. The thyroid hormones influence cell replication and are important in brain development. Thyroid hormone is also necessary for normal growth. Thyroid hormones affect virtually every major organ system and tissue function, including the basal metabolic rate,

tissue thermogenesis, serum cholesterol levels, and vascular resistance (Porth, 2015).

2.3. Thyroidectomy

Surgery is recommended when other treatments are ineffective in young individuals, people with large or suspicious nodules, and obstructive symptoms when the pressure on the esophagus or trachea causes breathing or swallowing problems for rapid resolution of symptoms. Subtotal thyroidectomy is usually performed. This procedure leaves enough of the gland to produce an adequate thyroid hormone. A total thyroidectomy is performed to treat thyroid cancer; the person then requires lifelong hormone replacement (Quérat et al., 2015).

2.4. Indications of Thyroidectomy

2.4.1. Thyroid Cancer

The incidence of thyroid cancer is increasing worldwide (Miranda-Filho et al., 2021). In the United States, 2% of all new malignant tumors are related to the thyroid gland, making it the most common endocrine malignancy (Figge, 2006). The main treatment for thyroid cancer is surgery (Callender et al., 2014). There are four main types of thyroid cancer: papillary, follicular, medullary, and anaplastic thyroid cancer. Papillary and follicular thyroid cancers originate from follicular thyroid cells, whereas medullary thyroid cancer originates from the C-cells. Anaplastic thyroid cancer is a highly aggressive, poorly differentiated cancer characterized by the uncontrolled growth of cells that no longer resemble original thyroid cells. Total thyroidectomy with or without central lymph node dissection is the standard primary treatment in the surgical management of papillary, follicular, and medullary thyroid cancers. A lobectomy or hemithyroidectomy is possible in patients with small size papillary or follicular

thyroid cancer (less than four centimeters and without vascular invasion) (Mitchell et al., 2016).

2.4.2. Benign Thyroid Diseases

Surgery is one of the treatment possibilities for some benign thyroid disorders, e.g., goiter causing compression symptoms, Graves' disease, and toxic adenomas causing hyperthyroidism (Hussain et al., 2017). Goiter with compression symptoms is most often treated with thyroidectomy. The enlarged gland can displace adjacent organs, making surgery challenging. Total thyroidectomy, lobectomy, or isthmus resection are standard procedures for managing goiter with compression symptoms (Durante et al., 2018). Excess thyroid hormones stimulate the heart, causing tachycardia, increased systolic BP, and sometimes atrial fibrillation. The heart rate may be as rapid as 160 beats per minute (bpm) (Linton, 2016).

Graves' disease, autoimmune thyroiditis, is the most common cause of hyperthyroidism. Total thyroidectomy is the treatment of choice when medical therapy by thyrostatic drugs fails to control the disease, and radio-iodine therapy is contraindicated. In some patients, for instance, those with severe Graves' ophthalmopathy, patients with Graves' disease expecting pregnancy, and drug-induced thyrotoxicosis, surgery is the first-choice therapy (Smithson et al., 2019).

2.5. Complications of Thyroidectomy

Surgical complications are classified as either early or late based on whether they arise during the first thirty days after surgery or later (Giordano, 2014).

The Clavien-Dindo Classification, which is widely used, divides complications into four severity levels (Dindo et al., 2004). Minor risk cases that did not necessitate treatment are classified as Grade 1 (with exceptions of

analgesic, antipyretic, antiemetic, and antidiarrheal drugs or drugs required for lower urinary tract infection). Grade 2 complications are described as potentially life-threatening complications requiring surgery or a hospital stay that was more than twice the typical hospitalization time for the same operation. Complications of grade 3 were classified as those that resulted in long-term impairment or organ resection. Grade 4 complications are considered life-threatening, while Grade 5 complications result in a patient's death due to a complication (Dindo et al., 2004).

Table (2.1): Clavien-Dindo Classification of Surgical Complications

Grade	Definition
Grade I	Any diversion from the expected postoperative path does not necessitate pharmacological therapy or surgical, endoscopic, or radiological intervention. Antiemetics, antipyretics, analgesics, diuretics, electrolytes, and physiotherapy are permitted treatment regimens. Wound infections that are opened at the bedside are also included in this category.
Grade II	requiring pharmacological therapy of medications not permitted for grade I complications. Total parenteral feeding and blood transfusions are also covered.
Grade III	Surgical, endoscopic, or radiological procedure is needed.
Grade IIIa	No general anesthesia is used in this procedure.
Grade IIIb	General anesthesia is used for the procedure.
Grade IV	Life-threatening complications needed IC/ICU treatment
Grade IVa	Failure of a single organ (including dialysis)
Grade IVb	Failure in multiple organs

Grade V	A patient's death
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(Dindo et al., 2004)

2.5.1. Neck Hematoma Due to Bleeding

The incidence of postoperative neck hematoma is between 0.6-2% (Weiss et al., 2014). Most rebleeding occurs during the first postoperative hours when the patient is observed in the postoperative care unit. Almost 90% of the patients who suffer from this complication bleed within 24 hours of the operation (Farooq et al., 2017). Most of the patients need re-exploration due to the risk of airway obstruction, but some will have superficial bleeding without obstruction symptoms. One study (Lee, 2009) investigated whether deep or superficial bleeding could be distinguished using clinical manifestations. The study found some differences, such as a smaller extent of skin ecchymosis and discoloration in deep bleedings than in superficial bleedings. No signs of respiratory distress symptoms could be observed in patients with superficial bleeding. However, in daily practice, making this distinction is very difficult.

2.5.2. Vocal Cord Palsy/Paresis

Postoperative vocal cord palsy occurs due to injury to the recurrent laryngeal nerve. The condition can be unilateral or bilateral, permanent, or transient. The incidence of permanent unilateral vocal cord palsy is 3-5 percent, whereas bilateral permanent vocal cord palsy is 0.01-0.02 percent (Bergenzfelz et al., 2016). The recurrent laryngeal nerves course adjacent to the dorsal side of the thyroid gland when entering the vocal muscles on both sides (Mohebati & Shaha, 2012).

This makes the nerves vulnerable to injuries during surgery. Injury to the recurrent laryngeal nerve may occur due to direct trauma such as cutting, burning, or compressing, or indirectly through forces like stretching, pulling, or

pushing the thyroid gland. The Nerve Integrity Monitor (NIM) device has been introduced in thyroid surgery in recent years. This device can identify the nerves in the early stage of the operation and monitor the nerves' function during the surgery. It has been shown that using NIM reduces the risk of permanent vocal cord palsy and almost eliminates the risk of bilateral vocal cord palsy (Abdelhamid & Aspinall, 2021).

2.5.4. Surgical Site Infection

After thyroid surgery, postoperative surgical site infection has a 0.5-2.0 percent (Bures et al., 2015). The infection leads to prolonged recovery after thyroid surgery, worsened cosmesis, and increased healthcare costs (Urban, 2006).

2.5.5. Hypocalcemia Due To Hypoparathyroidism

Postoperative hypocalcemia is a consequence of postoperative hypoparathyroidism. Parathyroid glands are closely attached to the thyroid gland. Hypoparathyroidism occurs when parathyroid glands are removed or injured during surgery. Hypoparathyroidism may be transient or permanent. In large cohort studies, transient and permanent postoperative hypoparathyroidism incidence is estimated to be between 7.6 -12.5 percent (Annebäck et al., 2021; Powers et al., 2013). Permanent hypoparathyroidism is associated with an increased risk of morbidity (Bergenfelz et al., 2020) and mortality (Almquist et al., 2018).

2.6. Preoperative Nursing Care

Before surgery, the person should be in as nearly a euthyroid state as possible. Antithyroid drugs may be given to reduce hormone levels and iodine

preparations to decrease the vascularity and size of the gland, which also reduces the risk of bleeding during and after surgery (Quérat et al., 2015).

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).

2.7. Postoperative Nursing Care and Patient Education

The initial postoperative treatment addresses cardiovascular problems, thrombus forming, anastomosis leaks, and electrolyte imbalances. The move from surgery could necessitate the participation of many staff members. Maintain the patient's airway during the transition and focus on pain management. Reduce abdominal pressure and maximize lung expansion by keeping the patient's head at a 45-degree angle (Thorell, 2016).

2.7.1. Observing for Hemorrhage and Airway Edema

1. Place the patient in a semi-Fowler position, with the head elevated and supported by pillows; avoid flexion of the neck.
4. Monitor vital signs frequently, watching for tachycardia and hypotension that indicates hemorrhage (most likely between 12 and 24 hours postoperatively).
5. Observe for bleeding at the sides and back of the neck and anteriorly when the patient is in the dorsal position.

6. Watch for repeated clearing of the throat or for the complaint of smothering or difficulty swallowing, which may be early signs of bleeding.

7. Watch for irregular breathing, swelling of the neck, and choking—other signs pointing to the possibility of bleeding and tracheal compression (Nettina, 2019).

2.7.2. 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).

2.7.3. Prevent Infection

Tell the patient to avoid touching the fresh incision and report any signs and symptoms of infection (i.e., fever, increasing wound redness and swelling, foul drainage). Protect the incision from strain and possible dehiscence by supporting the neck when arising and reclining (Honan, 2019)

2.7.4. 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 to 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).

2.7.5. Ensuring Fluid Volume Balance

Intravenous (IV) fluids are normally given to thyroid surgery patients for the first few hours after surgery. Tiny amounts of these liquids promote gastrointestinal peristalsis and perfusion (Hinkle & Cheever, 2018).

2.8. Previous Studies

First Study: El-Shenawie et al. (2021) in their study (Nurses' knowledge, attitude, and practice regarding Patients undergoing thyroidectomy).

Objectives:

Assess nurses' knowledge, attitude, and practice regarding Patients undergoing thyroidectomy.

Methods:

A descriptive research design Subjects and method: The study was carried out in surgery departments at Alexandria University Hospital, Egypt. Three tools were used for data collection. Tool I: Nurses' Knowledge Assessment Questionnaire for thyroidectomy. Tool II: Nurses' Practice Observational checklist. Tool III: Nurses' Attitude regarding Patients undergoing thyroidectomy.

Results:

The overall knowledge of the studied nurse's percent score was 59.05 ± 8.91 with a total score of 12.40 ± 1.87 , and the overall practice of the studied nurse's percent score was 56.10 ± 6.01 with a total score of 31.42 ± 3.37 , 69.58 ± 19.17 whatever the results show that percent score of studied nurses was 69.58 ± 19.17 and total score 19.13 ± 3.07 Also, there was no significant correlation between the studied nurse's knowledge attitude and practice related

to thyroidectomy ($p=0.638, 0.213, 0.721$) respectively. There was a significant relationship between nurses' knowledge, practice, and socio-demographic characteristics and only significant relation between attitude with age, level of education, and nurses' years of experience.

Conclusion:

Nurses showed a moderate level of knowledge, practice, and a high level of attitude regarding the care of patients undergoing thyroidectomy.

Second Study: Sulaiman and Al- Saigh (2020) in their study (Assessment Of Nurses Knowledge Towards Post Thyroidectomy Management in Nineveh Governorate Hospitals).

Objectives:

The study aimed to assess nurses' knowledge towards post thyroidectomy management in Nineveh governorate hospitals.

Methods:

A descriptive cross-sectional study was performed in two governmental hospitals are included in the study (Tal Afar General Hospital and Al-Salam Teaching Hospital). The study was conducted from the 7th of October to the 30th of December 2019. The study sample was randomly selected, consisting of (60) nurses from both hospitals. The researcher constructed a special questionnaire tool; this questionnaire tool consisted of two parts, nurses' demographic characteristics and questions about post thyroidectomy management in the form of multiple-choice questions. The data were analyzed using descriptive statistical analysis that included frequency and percentage.

Results:

The study indicated that 43.3% of the study sample age were 20-29 years, with a high percentage of 55.0% were females, and 40.0% were at secondary and institution educational levels. Concerning their knowledge majority, 43.3%, were at a not acceptable level 25.0% were at the fail level, which means 68.3% of the nurses had incorrect responses.

Conclusion:

The findings of the current study conclude that inadequacy of nurses' knowledge in the medical wards, intensive care units, and recovery room toward post-operative management for a patient with thyroidectomy

Third Study: Shaama et al., (2018) in their study (Knowledge of the University of Namibia Third Year Bachelor in Nursing Students Regarding Post Operative Management of Patients After Thyroidectomy).

Objectives:

The objectives of this study were to assess and explore the knowledge level of the University of Namibia third-year bachelor in nursing students concerning post-operative management of patients who had a thyroidectomy and to determine the management and care rendered to post-operative patients who had a thyroidectomy.

Methods:

A quantitative, cross-sectional design was used. Data was collected using a structured questionnaire. A simple random sampling was employed, and 58 participants participated in the study. The collected data was analyzed using micro soft excel, 2013.

Results:

Among the participants, 88% were female, the majority of students, 74% were in the age group of 21-24, the majority of the participants were single, representing 93%, and 97% had never enrolled as nurses before. Most of the nursing students had moderate knowledge regarding post-operative management of patients after thyroidectomy.

Conclusion:

The study concluded that the knowledge level of the 3rd year bachelor in nursing students regarding managing patients after thyroidectomy was below average. Therefore, there is a need for extra education and training for bachelor in nursing students focused more on preoperative nursing care, particularly on thyroid surgery, to improve their level of knowledge and enhance safe patient care during their clinical practices.

Fourth Study: Seow and Chen (2017) in their study (Knowledge and Attitude of Endocrine Trainees Towards The Management of Endocrine Disorders in People Living with HIV in Singapore).

Objectives:

To assess the knowledge, practice patterns, and confidence levels among endocrinology trainees in Singapore in managing endocrine disorders in people with HIV (PWH).

Methods:

An anonymous survey was administered to 23 endocrinology trainees in Singapore. 4 domains were assessed, namely (1) Previous exposure to endocrine disorders in PWH; (2) Attitudes toward treating PWH; (3) Case

studies in Endocrinology designed to assess for differences in treatment philosophy between a PWH and a non-infected counterpart; and (4) Knowledge and confidence in managing endocrine disorders in PWH. Trainees were also asked if they would consider HIV Endocrinology as a subspecialty in the future.

Results:

The participation rate was 73.9%, with most trainees (88.2%) having managed less than 5 PWH with endocrine disorders. 94.1% of the trainees had little or no hesitation in treating PWH, but more than half (58.8%) felt inadequate in managing endocrine disorders in this unique population. 82.4% deemed it an emerging field and were open to pursuing it as a subspecialty in the future but felt that more attachments to a specialized clinic would bolster interest and confidence. However, more than half were ambivalent about prescribing cross-hormonal therapy to transgender individuals. In addition, some trainees were hesitant about offering surgery (e.g., thyroidectomy for Graves disease) for HIV patients, preferring medical therapy such as thioamides or radioactive iodine instead.

Conclusion:

While HIV Endocrinology is an emerging field with the promise of being recognized as a subspecialty, many trainees feel they lack training in this area. Increasing exposure from regular case discussions and structured attachments to a joint HIV-Endocrinology specialized clinic can further fuel interest in this field.

Fifth Study: Basak et al., (2010) in their study (Knowledge and Attitudes of Nurses and Their Practices Regarding Postoperative-Thyroidectomy Pain Management in Bangladesh).

Objectives:

This study examined nurses' knowledge, attitudes, and practices regarding postoperative pain management.

Methods:

One hundred nurses were selected using simple random sampling from two hospitals in Bangladesh. The instruments are composed of three parts: (1) Nurses' Demographic Data Form; (2) Knowledge and Attitudes of Nurses Regarding Postoperative Pain Management Questionnaire. And (3) Nurses' Caring Behavior Regarding Postoperative Pain Management Questionnaire. Three experts validated the questionnaires and back-translated them to the Bengali language. The test-retest reliability coefficient was 0.72 for the knowledge and attitudes questionnaire and 0.87 for the practice questionnaire. Eighty-seven questionnaires were returned and used in the data analysis.

Results:

The findings indicated that nurses had a very low level of knowledge and negative attitudes regarding postoperative pain management, whereas the level of practice was moderate. Therefore, it is necessary to improve the knowledge and attitudes of nurses and their practices regarding post-operative pain management in Bangladesh.

Sixth Study: Desoky et al., (2009) in their study (Assessment of Nurses' Performance for Patients Undergoing Thyroidectomy at Assiut University Hospital).

Objectives: To assess nurses' performance for patients undergoing thyroidectomy and post thyroidectomy complications that face those patients.

Methods:

The study was carried out at the general surgery department and outpatient clinics at Assiut University Hospital. The sample consisted of 36 (male and female) nurses who were currently assigned to care for 40 patients who had undergone thyroidectomy. The methodology is divided into four designs: Technical design, operational design, Administrative design, and Statistical design. Tools utilized for data collection were an interview questionnaire sheet, observation checklist for nurses, and patient assessment sheet.

Results:

The results showed that; less than half of nurses (41.7%) have an age less than 40 years old. A nursing diploma was the highest proportion (94.4 %), and none of them attended any previous training program in nursing care for patients undergoing thyroidectomy. Also, results showed that more than half of the patients (67.7%) ranged from 30 to 44 years. Most of them (87.5%) were female, and more than half (52.5 %) of patients had a simple goiter, and subtotal thyroidectomy was the most frequently performed surgical procedure. Some patients developed some complications at different times.

Conclusion:

Nurses showed the inadequacy of their performance regarding patients undergoing thyroidectomy. Some patients developed postoperative complications, and the most prevalent during all times of the researcher's follow-up were tetany and recurrent laryngeal nerve injury.

Chapter Three

Methodology

Chapter Three**Methodology**

The research design used in the present study is explained in this chapter. It involves the design of the study, the administrative arrangements, ethical considerations, setting of the study, the sample of the study, criteria of the sample, study instruments, the validity of the questionnaire, performing a pilot study, instrument reliability, and data collection, and data analysis.

3.1. Design of the Study

A descriptive cross-sectional study on nurses' knowledge and attitudes toward thyroidectomy in Al-Basrah Governorate. The study period was extended from the 15th of November 2021 to the 1st 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-Basrah 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 and operating rooms at Al-Sader Teaching Hospital, Al-Faiha Teaching Hospital, Al-Basrah Teaching Hospital, Abi Al-Khasib General Hospital, Umm Qasr General Hospital, Al-Zubair General Hospital, Al-Shifaa Hospital, and Al-Mawani Teaching Hospital in Al-Basrah Governorate.

3.5. Sample of the Study

Purposive (non-probability) sample covers (200) nurses who work in the surgical wards and operating rooms. (20) 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 created a questionnaire based on an exhaustive analysis of related literature and previous studies, which

was then used to gather data for the study project related to thyroidectomy. It consists of five parts: (Appendices: A & B).

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

This part is concerned with the collection of basic demographic Data was obtained from the nurses through direct interviews, consisting of the following items; gender, age, marital status, education level, years of experience, Participating in a training course on thyroidectomy, and place of work.

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

This part was constructed to assess the nurses' knowledge concerning thyroidectomy. It consisted of (10) items.

Part (III): Questionnaire Related to Nurses' Knowledge toward Complications of Thyroidectomy

This part was constructed to assess the nurses' knowledge about complications of thyroidectomy. It consisted of (8) items.

Part (IV): Questionnaire Related to Knowledge about Postoperative Nursing Care

This part was constructed to assess the nurses' knowledge concerning complications of postoperative nursing care. It consisted of (13) items.

**Part (V): Questionnaire Related to Nurses' Attitudes
toward Thyroidectomy**

This part was constructed to assess the nurses' attitudes concerning thyroidectomy. It consisted of (7) 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 the 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 assessed the testing instrument's reliability using the Statistical Package for Social Science Program (SPSS) for (38) 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	0.81	31	Very good
Cronbach's Alpha	Nurses' Attitudes	0.79	7	Acceptable

3.9. Data Collection Methods

The researcher collected the data using a constructive knowledge questionnaire and was then answered in a direct interview. The data collection period was extended from the 27th of December 2021 to the 27th of February 2022.

3.10. Ranging and Scoring

We used three (3) points Likert Scale, ranging from 1 to (3). This scale is composed of (31) 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 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).

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

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)

3.12.2.4. Fisher's Exact Test:

Test for independence in a 2 X 2 table. It is most useful when the total sample size and the expected values are small. The Fisher's Exact Test statistic is computed with the following formula:

$$F = \frac{r^2 (N-2)}{(1-r^2)}$$

(Warner, 2013).

Chapter Four

Results of the Study

Chapter Four

Results of the Study

(4-1): Distribution of the Variables Related Demographic Characteristics
N=200 nursing staff

Demographic Variables	Variables Classes	F	Percent
Gender	Male	88	44 %
	Female	112	56 %
	Total	200	100 %
Age	20-29	109	54.5 %
	30-39	65	32.5 %
	40-49	18	9 %
	35-39	11	11 %
	50 and more	8	4 %
	Total	200	100 %
	Marital status	Married	135
	Single	65	32.5 %
	Total	200	100 %
Education level	Secondary School	75	37.5 %
	Nursing Institute	83	41.5 %
	College of Nursing	42	21 %
	Total	200	100 %
Years of experience	1-5	93	46.5 %
	6-10	50	25 %
	11-15	29	14.5 %
	More than 15	28	14 %
	Total	200	100 %
Place of Work	Surgical Wards	127	63.5 %
	Operating Room	73	36.5 %
	Total	200	100 %
Training Course	Yes	39	19.5 %
	No	161	80.5 %
	Total	200	100 %

F = frequency

This table shows the socio-demographic characteristics of the nurses in the present study 56% were female (more than half), age group was (20-29) years (54.5%). Most of them were married (67.5%). The highest percentage is seen with the nursing institute (41.5%) regarding educational levels. Regarding

years of experience, the highest percentage is seen with the 1-5 years (46.5 %). Most of them work in the surgical wards (63.5%). The majority of the nurses had no training course in thyroidectomy (80.5%).

(4-2): Nurses' Knowledge toward Thyroidectomy

Table (4.2.2): Nursing Staff's Knowledge toward Thyroidectomy

Nursing Staff's Knowledge						
Assessment levels	F	%	Scale	Total		
				MS	Sd	Ass.
Poor	133	66.5%	1 – 1.66	1.68	0.795	Moderate
Moderate	29	14.5%	1.67 – 2.33			
Good	38	19%	2.34 – 3			
Total	200	100 %				

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

The findings of this table indicate that the majority of the nurses (66.5%) have poor knowledge about thyroidectomy, (14.5%) of them have moderate knowledge, and (19%) of them have a good knowledge at the mean score and standard level deviation= (1.68+0.795).

Table (4.3.1): Relationships of Demographic Variables with Nurses' Knowledge (all domains)

Relationships of Demographic Variables with Nurses' Knowledge (all domains)					
Demographic Variables	Variables Classes	Knowledge			Significant
		Poor	Moderate	Good	
Gender	Male	53	18	17	Chi-Square= 4.546 Df= 2 P-Value= 0.103 NS
	Female	78	11	23	
Age	20-29	65	16	28	Fisher's Exact Test= 6.937 P-Value= 0.340 NS
	30-39	48	8	9	
	40-49	11	5	2	
	45 and more	7	0	1	
Marital Status	Single	38	8	19	Chi-Square= 5.150 Df= 2 P-Value= 0.76 NS
	Married	93	21	21	
Education Level	Secondary School	64	8	3	Chi-Square= 113.073 Df= 4 P-Value= 0.000 HS
	Institute	66	11	6	
	College	1	10	31	
Years of Experience	1-5	51	14	28	Fisher's Exact Test= 16.542 P-Value= 0.009 HS
	6-10	41	5	4	
	11-15	22	5	2	
	More than 15	19	5	4	
Place of Work	Surgical Wards	83	14	30	Chi-Square= 5.184 Df= 2 P-Value= 0.75 NS
	Operating Room	48	15	10	
Training Course	Yes	3	17	19	Chi-Square= 72.968 Df= 2 P-Value= 0.000 HS
	No	128	12	21	

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

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

Also, the findings of this table show there is no significant relationship between nurses' (gender, age, marital status, and place of work) and their knowledge about thyroidectomy at a P-value > 0.05.

(4-4): Nurses' Attitudes toward Thyroidectomy

Table (4.4.1): Nursing Staff's Attitudes toward Thyroidectomy

Nursing Staff's Knowledge						
Assessment levels	F	%	Scale	Total		
				MS	Sd	Ass.
Poor	141	70.5%	1 – 1.66	1.61	0.494	Poor
Moderate	33	16.5%	1.67 – 2.33			
Good	26	13%	2.34 – 3			
Total	200	100 %				

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

The findings of this table indicate that the majority of the nurses (70.5%) have poor attitudes about thyroidectomy (16.5%) have moderate attitudes, and (13%) of them have good attitudes at the mean score and standard level deviation= (1.61+0.494).

Table (4.5.1): Relationships of Demographic Variables with Nurses' Attitudes

Relationships of Demographic Variables with Nurses' Attitudes					
Demographic Variables	Variables Classes	Knowledge			Significant
		Poor	Moderate	Good	
Gender	Male	60	12	16	Chi-Square= 4.147 Df= 2 P-Value= 0.126 NS
	Female	81	21	10	
Age	20-29	75	19	15	Fisher's Exact Test= 8.964 P-Value= 0.135 NS
	30-39	46	10	9	
	40-49	14	2	2	
	45 and more	6	2	0	
Marital Status	Single	100	19	16	Chi-Square= 2.655 Df= 2 P-Value= 0.265 NS
	married	41	14	10	
Education Level	Secondary school	62	6	7	Chi-Square= 64.289 Df= 4 P-Value= 0.000 HS
	Institute	70	6	7	
	College	9	21	12	
Years of Experience	1-5	57	20	16	Fisher's Exact Test= 15.800 P-Value= 0.009 HS
	6-10	41	5	4	
	11-15	22	3	4	
	More than 15	21	5	2	
Place of Working	Surgical wards	91	24	12	Chi-Square= 4.653 Df= 2 P-Value= 0.098 NS
	Operations	50	9	14	
Training Course	Yes	10	13	16	Chi-Square= 51.420 Df= 2 P-Value= 0.000 HS
	No	131	20	10	

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

This table shows a significant relationship between nurses' (education level, years of experience, and training courses) and their attitudes toward thyroidectomy at a P-value ≤ 0.05 .

Also, the findings of this table show there is no significant relationship between nurses' (gender, age, marital status, and place of work) and their attitudes about thyroidectomy 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, this study shows that more than half of the samples are female, and they were accounted for (56%).

This study agreed with (Shaama et al., 2018), which reveals that most respondents were female.

The majority of the nurses worldwide are female. The College of Nursing and Nursing Institute accepts females more than males in Iraq.

5.1.2. Age

The characteristics of the present sample included in this study in the age group (20-29) years old (54.5%).

These results agreed with (Shaama et al., 2018) that the majority of the nurses were between (20-29) years old (43%).

The researcher believes that nurses working in the surgical wards and operating rooms were young, which indicated a positive point because they have a stronger urge to learn more and improve their knowledge. Also, this work requires more effort muscle.

5.1.3 Marital Status

This study reveals that most nurses were married (67.5%) regarding marital status.

The results of this study agreed (Tiryag & Atiyah, 2021), which stated that (79%) of nurses were married.

The researcher believes that most nurses are married because all surgical wards are 20 years and above and employed at young ages.

5.1.4. Educational Level

The present study has the highest percentage with the nursing institute (41.5%).

The findings of this study agreed with (Desoky et al., 2009); which Nursing diploma was the highest proportion (94.4%)

In Iraq, we have a nursing secondary school, nursing institute, and nursing college. Nursing Secondary School and Nursing Institute graduates work in nearly all wards. In contrast, college nursing graduates nurses work in critical wards and are less than other nurses.

5.1.5. Years of Experience

This study reveals that most nurses who work in the surgical wards were between (1-5) years of experience, with a percentage (46.5%).

These results agree with (Shaama et al., 2018), which shows that most of the sample has (1-5) years of experience.

5.1.6. Place of Work

Concerning the place of work, the most study sample is worked in the surgical wards (63.5%).

These results agree with (Tiryag and Atiyah, 2021), which stated that most nurses worked in the surgical wards.

5.1.7. Training Course

Concerning training courses, most nurses have no training course (80.5%).

The results of this study are consistent with those, El-Shenawie et al. (2021), which reveal that most nurses do not have a training course.

5.2. Discussion of Nurses' Knowledge about Thyroidectomy

The current study findings in tables (4-2) explored the statistics of nurses' knowledge toward thyroidectomy. Nurses' knowledge statistics are classified into three main domains: Nurses' knowledge about thyroidectomy, nurses' knowledge about complications of thyroidectomy, and nurses' knowledge concerning postoperative nursing care.

According to the findings of this study, the bulk of the nurses (66.5%) have poor knowledge about thyroidectomy.

The researcher believes that nurses' poor knowledge regarding thyroidectomy might be due to many causes. Nurses did not study enough about thyroidectomy at all nursing education levels. The nurses do not have adequate training courses about thyroidectomy, and the nurses do not update their knowledge continuously.

The results of this study agreed with (Sulaiman and Al-Saigh, 2020) study; the results showed that most nurses have inadequate knowledge (68.3%) toward operative management for patients with thyroidectomy.

The findings of this study agreed with (Shaama et al., 2018); in their study, the knowledge level of the 3rd year bachelor in nursing students regarding the management of patients after thyroidectomy was below average.

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

According to the findings of this study, there is no significant relationship between nurses' knowledge and demographic variables of the study group concerning (gender, age, marital status, and place of work).

Other studies have also shown no major differences between demographic variables and nurses' knowledge (Sulaiman & Al-Saigh, 2020) which supports the findings of this study and mentions in their results that the nurses' demographic variables did not affect the results.

5.4. Discussion of Nurses' Attitudes about Thyroidectomy

According to the present study results, most nurses (70.5%) have poor attitudes about thyroidectomy.

The results of this study agreed with a study conducted in Bangladesh by Bask et al. (2010) on nurses' knowledge and attitudes concerning post-thyroidectomy pain management, and their practices reported that nurses had an unsatisfactory level of knowledge and attitudes in post thyroidectomy pain management.

Also, the present study's findings were opposite to a study conducted in Egypt by El-Shenawie et al. (2021); nurses' knowledge, attitude, and practice regarding Patients undergoing thyroidectomy. The results show that studied nurses had a high attitude related to thyroidectomy.

5.5. Discussion of Relationship between Nurses' Attitudes and Demographic Variables

According to the result of this study, there is a significant relationship between nurses' knowledge and their demographic variables (education level and years of experience).

The results of the present study agreed with a study conducted in Egypt by El-Shenawie et al. (2021); nurses' knowledge, attitude, and practice regarding Patients undergoing thyroidectomy. The results showed a significant relationship between nurses' attitudes and educational levels and years of experience.

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:

6.1.1. The vast majority of the nurses in the present study were female, age group was (20-29) years, married, nursing institute, 1-5 years of experience, worked in the surgical wards, and had no training course about thyroidectomy.

6.1.2. Most of the nurses who participated in the present study had poor knowledge about thyroidectomy in all domains (thyroidectomy, complications of thyroidectomy, and postoperative nursing care).

6.1.3. The majority of the nurses who participated in the present study had poor attitudes about thyroidectomy.

6.1.4. There is a significant relationship between nurses' (education level, years of experience, and training courses) and their knowledge and attitudes.

6.1.5. There are no significant differences between demographic data (gender, age, marital status, and place of work) and nurses' knowledge and attitudes.

6.2. Recommendations

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

6.2.1. Providing education programs for nurses to improve their knowledge about thyroidectomy.

6.2.2. Training courses should be provided to these nurses to increase their knowledge about thyroidectomy, complications of thyroidectomy, and postoperative nursing care.

6.2.3. Providing booklets for nurses related to thyroidectomy, complications of thyroidectomy, and everything about this surgery.

6.2.4. The researcher recommended more studies about thyroidectomy because of the deficit of studies in Iraq.

6.2.5. Creating a continued education unit in the surgical ward to help nurses develop their knowledge about thyroidectomy because the curriculum at all levels of nursing doesn't include thyroidectomy.

6.2.6. Increasing media means improving nurses' knowledge about thyroidectomy, complications of thyroidectomy, and providing postoperative nursing care.

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Appendices

Appendix-A

English Questionnaire

Part 1: Nurses' Demographic Information

1-Gender

Male Female

2-Age (years old)

20-29 30-39 40-49
 50 and more

3- Marital Status

Married Single

4- Level of Education

secondary school nursing Nursing institute
 college of nursing

5- Years of Experience

1-5 years 6-10 11-15 >
 15

6- Participated in a training course on thyroidectomy

Yes No

7- Place of Work

Surgical Wards Operations

Part 2: Knowledge about Thyroidectomy

Items	Know	Uncertain	Don't know
1. the thyroid gland is a part of the endocrine system, the butterfly gland, and is located at the base of the neck under adam's apple.			
2. the basic function of the thyroid gland is the secretion of hormones(T3, T4, and calcitonin).			
3. the thyroid gland controls some important body functions, such as regulating body temperature and metabolism.			
4. there are two types of thyroidectomy; total and partial thyroidectomy.			
5. the thyroid normally works in partial thyroidectomy.			
6. the causes of thyroidectomy are cancer, hyperthyroidism, thyroid nodules, and thyroid goiter.			
7. hyperthyroidism occurs when the thyroid gland produces a large amount of thyroxine.			
8. patients need to take one tablet daily of levothyroxine after total thyroidectomy.			
9. TSH can diagnose thyroid disorders.			
10. Hyperthyroidism can be identified by symptoms such as tachycardia, diarrhea, weight loss, and heat intolerance.			

Part 3: Knowledge about Complications of Thyroidectomy

Items	Know	Uncertain	Don't know
1. airway obstruction is the most dangerous complication after thyroidectomy.			
2. when total thyroidectomy is performed, the patient's body will not be able to produce hormones completely without alternative drugs.			
3. bleeding may occur at the neck, specifically in the wound area after thyroidectomy.			
4. shortness of breath and cough may occur when speaking if the laryngeal nerve is damaged (injury) after thyroidectomy.			
5. infection may occur after thyroidectomy causing (pain, redness, heatness, abscess, and swelling).			
6. laryngeal nerve damage may develop into pneumonia after thyroidectomy.			
7. low calcium levels may occur during parathyroidectomy causing cramps, paraesthesia, or numbness.			
8. the patient may have difficulty swallowing food and feel the presence of a mass in the pharynx in the first period after thyroidectomy.			

Part 4: Knowledge about Postoperative Nursing Care

Items	Know	Uncertain	Don't know
1. moving the patient as soon as possible to prevent postoperative complications such as deep venous thrombosis and pulmonary embolism.			
2. after surgery, pain analgesics can be given as prescribed to relieve pain and discomfort.			

3. monitor fluid intake and output and give intravenous fluids.			
4. the patient must be eaten soft foods and cold fluids after surgery.			
5. usually, the dressing should stay on the wound for one week; the physician should remove sutures after ten days from surgery.			
6. usually, the patient needs analgesics and antibiotics after the surgery through the first days.			
7. Patients with the total thyroidectomy should intake one levothyroxine tablet daily before breakfast to compensate for thyroid gland hormones.			
8. Low calcium levels may occur temporarily or permanently after the surgery, so the patient should intake calcium supplementation.			
9. when sleeping, prefer to use two or three pillows to keep the elevation of the head for two weeks after surgery.			
10. monitor the operation site for prompt actions if bleeding occurs.			
11. ask the patient to talk to know the intact laryngeal nerve.			
12. monitor for signs of infection after the surgery (such as swelling, redness, abscess, etc.)			
13. avoid physical activity or heavy lifting for at least three weeks after surgery.			

Part 5: Attitudes

Items	Yes	No	Don't know
1. the thyroidectomy is safe and reliable.			
2. If I have thyroid problems, I will consider thyroidectomy.			
3. If my family or friends have thyroid problems, I will treat them with thyroidectomy.			

4. If the hospital has a thyroidectomy, I will provide counseling for patients with thyroid disorders.			
5. If I need the thyroidectomy, I will do it, even if it's at my expense.			
6. thyroidectomy is the best method when other treatments are failed.			
7. If you have had thyroid cancer, would you agree to the thyroidectomy?			

Appendix-B

استمارة الاستبانة باللغة العربية

الجزء الأول: المعلومات الديموغرافية للممرض

. الجنس

ذكر أنثى

. العمر

٢٩-٢٠ ٣٩-٣٠ ٤٩-٤٠
 ٥٠ وأكثر

. الحالة الزوجية

متزوج أعزب

. المستوى التعليمي

اعدادية التمريض معهد التمريض كلية التمريض

. سنوات الخبرة

٥-١ ١٠-٦ ١٥-١١
 أكثر من ١٥

. مكان العمل

الردهات الجراحية العمليات

. شاركت في دورة تدريبية عن جراحة واستئصال الغدة الدرقية

نعم لا

الجزء الثاني: المعرفة حول استئصال الغدة الدرقية

ت	الفقرة	أعرف	غير متأكد	لا أعرف
1	تعتبر الغدة الدرقية من الغدد الصماء، تكون على شكل فراشة وتقع في قاعدة العنق اسفل تفاحة آدم.			
2	الوظيفة الأساسية للغدة الدرقية هي إفراز هرمون T3 و هرمون T4 وهرمون الكالسيتونين.			
3	تتحكم الغدة الدرقية ببعض وظائف الجسم الهامة مثل تنظيم درجة حرارة الجسم وعمليات الأيض.			
4	يوجد نوعان من استئصال الغدة الدرقية استئصال كلي واستئصال جزئي.			
5	تعمل الغدة الدرقية بشكل طبيعي في حالة استئصال جزء منها.			
6	أسباب استئصال الغدة الدرقية هي تضخم الغدة الدرقية، سرطان، فرط نشاط الغدة الدرقية، وعقد الغدة الدرقية.			
7	يحدث نشاط الغدة الدرقية عندما تنتج كمية كبيرة من هرمون الثايروكسين .			
8	تحتاج الى تناول قرص يوميا يحتوي على الهرمون الدرقي الاصطناعي ليفوثيروكسين بعد استئصال الغدة.			
9	يمكن تشخيص اضطرابات الغدة الدرقية عن طريق تحليل الهرمون المحفز للغدة الدرقية هو TSH			
10	يمكن التعرف على فرط نشاط الغدة الدرقية، من خلال بعض الأعراض مثل الرُعاش، وضربات القلب السريعة، الاسهال، فقدان الوزن، و عدم تحمل الحرارة.			

الجزء الثالث: مضاعفات استئصال الغدة الدرقية

ت	الفقرة	أعرف	غير متأكد	لا أعرف
1	ان انسداد مجرى الهواء بعد استئصال الغدة ناتج عن النزيف .			
2	اذ تمت ازالة الغده الدرقية بالكامل لن يتمكن جسم المريض من انتاج الهرمونات بالكامل، دون بديل .			
3	قد يحدث نزيف دموي في منطقة الرقبة تحديدا في منطقة الجرح بعد استئصال الغدة الدرقية .			
4	ربما يحدث ضيق في التنفس وسعال عند التحدث اذ اصيب العصب الحنجري بتلف بعد استئصال الغدة الدرقية.			
5	ربما تحدث اصابة بالعدوى بعد استئصال الغدة الدرقية مسببة (ألم ، احمرار، حرارة ، خراج ، تورم)			
6	قد تتطور اصابة العصب الحنجري اذا حدثت بعد استئصال الغدة الدرقية الى التهاب رئوي.			
7	قد تنخفض مستويات الكالسيوم في الدم نتيجة لاستئصال الغدد جنب الدرقية مسببة حدوث تشنجات أو خدر أو تنمل.			
8	قد يصاحب المريض في الفترة الاولى بعد استئصال الغدة الدرقية صعوبة بلع الطعام ويشعر بوجود كتلة في الحلق .			

الجزء الرابع: العناية التمريضية بعد العملية

ت	الفقرة	أعرف	غير متأكد	لا أعرف
1	تحريك المريض في أقرب وقت ممكن لمنع مضاعفات ما بعد الجراحة، مثل تجلط الأوردة العميقة والانسداد الرئوي			
2	بعد الجراحة ، يمكن إعطاء مسكنات الألم كما هو موصوف لتخفيف الألم وعدم الارتياح			
3	مراقبة معدل السوائل التي يتناولها المريض و معدل السوائل التي يفقدها الجسم و إعطاء المحاليل الوريدية.			
4	يجب على المريض تناول الأطعمة اللينة والسوائل الباردة بعد العملية الجراحية.			

5			غالبًا ما تبقى الضمادات المعقمة على الجرح لمدة أسبوع، كما يتم إزالة الخيوط من قبل الطبيب بعد أسبوع ونصف من إجراء العملية.
6			غالبًا ما يحتاج الشخص ما بعد عملية الغدة الدرقية إلى تناول مسكنات الألم والمضادات الحيوية خلال الأيام الأولى من إجراء العملية.
7			يجب تناول حبة يوميًا قبل الإفطار من بديل هرمون الغدة الدرقية ليفوثيروكسين وذلك لتعويض هرمون الثايروكسين
8			تنخفض مستويات الكالسيوم في الجسم بعد استئصال الغدة الدرقية بشكل مؤقت أو دائم، لذا من الضروري تناول مكملات الكالسيوم لتعويض النقص.
9			عند النوم يفضل استخدام وسادتين أو ثلاث للحفاظ على ارتفاع مستوى الرأس لمدة قد تصل لأسبوعين ما بعد إزالة الغدة الدرقية.
10			يجب تعقيم الجرح وتبديل الضماد بعد العملية الجراحية.
11			ويتم إزالة الضمادة عادةً بعد مرور 48 ساعة من مغادرة المستشفى.
12			يجب مراقبة مكان العملية الجراحية لإجراء التداخل الفوري في حال حدوث نزيف.
13			نطلب من المريض التكلم لمعرفة سلامة العصب الحنجري
14			مراقبة علامات الالتهاب بعد اجراء العملية الجراحية للاستئصال الغدة الدرقية مثل التورم والحمى.
15			تجنب النشاط البدني الشاق أو رفع الأشياء الثقيلة لمدة لا تقل عن ثلاثة أسابيع من إجراء العملية.

الجزء الخامس: الاتجاهات Attitudes

ت	الفقرة	نعم	لا	لا اعرف
1	جراحة استئصال الغدة الدرقية آمنة وموثوق بها			
2	أنا قلق بشأن المضاعفات بعد الجراحة والآثار الجانبية.			
3	إذا كان لدي مشاكل في الغدة الدرقية، سأفكر في الجراحة.			
4	إذا كانت عائلتي أو أصدقائي يعانون من مشاكل في الغدة الدرقية سأعرض عليهم أن يعالجوا بالجراحة			

			5 إذا كانت المستشفى لديها جراحة استئصال الغدة الدرقية، سأقدم لمرضى اضطرابات الغدة الدرقية الاستشارة.
			6 إذا كنت بحاجة الى الجراحة ، سأفعل ذلك، حتى لو كانت على نفقتي الخاصة.
			7 أن استئصال الغدة الدرقية هو الحل الأنسب في حال فشل جميع الإجراءات العلاجية الأخرى.
			8 في حال تعرضك لسرطان الغده الدرقية هل ستوافق على إجراء عملية استئصال الغدة الدرقية.

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 وعقلية	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
١١	م.م. دعاء محمد باجي	مدرس مساعد	جامعة البصرة/ كلية التمريض	نفسية وعقلية	٧ سنوات
١٢	م.م. خديجة محمد جاسم	مدرس مساعد	جامعة البصرة/ كلية التمريض	تمريض بالغين	٧ سنوات

الخلاصة

الخلفية العلمية: استئصال الغدة الدرقية هو واحد من أكثر جراحات الرقاب والغدد الصماء شيوعاً التي يتم إجراؤها اليوم. بسبب التقدم التكنولوجي في جراحات الغدة الدرقية ، فإن معدلات الوفيات والمرضاة منخفضة ، ولكن بعض المضاعفات طويلة الأجل التي تحدث بعد استئصال الغدة الدرقية لا تزال تمثل مشكلة اجتماعية صحية.

الأهداف: هدفت هذه الدراسة إلى تقييم معارف المرضى واتجاهاتهم تجاه استئصال الغدة الدرقية وإيجاد العلاقة بين معارف الممرضات واتجاهاتهم تجاه استئصال الغدة الدرقية وخصائصهم الديموغرافية مثل (العمر، الجنس، مستوى التعليم، سنوات الخبرة، الدورة التدريبية).

المنهجية: دراسة وصفية لمعارف واتجاهات المرضى تجاه استئصال الغدة الدرقية في (مستشفى الصدر التعليمي، مستشفى الفيحاء التعليمي، مستشفى البصرة التعليمي، مستشفى أبي الخصيب العام، مستشفى أم القصر العام، مستشفى الزبير العام، مستشفى الشفاء، مستشفى المواني التعليمي) في محافظة البصرة. امتدت فترة الدراسة من ١٥ تشرين الثاني ٢٠٢١ إلى ١ أبريل ٢٠٢٢. عينة قصدية (غير احتمالية) من (٢٠٠) ممرض. ولتحديد مصداقية الاستبانة، تم اختيار (١٢) خبيراً لمراجعة الاستبانة. تم تحديد ثبات الاستبانة باستخدام اختبار ألفا كرونباخ.

النتائج: أظهرت هذه الدراسة أن (٦٦,٥٪) من الممرضين الذين شملتهم الدراسة لديهم معرفة ضعيفة باستئصال الغدة الدرقية، و(١٤,٥٪) من الممرضين لديهم معرفة متوسطة، و(١٩٪) من الممرضين لديهم معرفة جيدة. كما أظهرت هذه الدراسة أن غالبية الممرضات (٧٠,٥٪) لديهم اتجاهات سيئة تجاه استئصال الغدة الدرقية (١٦,٥٪) منهم لديهم اتجاهات متوسطة، و(١٣٪) منهم لديهم اتجاهات جيدة.

الاستنتاجات: خلصت الدراسة الحالية إلى أن الممرضين لديهم معرفة متوسطة واتجاهات ضعيفة حول استئصال الغدة الدرقية.

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



جامعة البصرة/ كلية التمريض

معارف و اتجاهات الممرضين باتجاه استئصال الغدة الدرقية في

محافظة البصرة

مشروع بحث مقدم الى كلية التمريض/جامعة البصرة

لنيل درجة البكالوريوس في علوم التمريض

من قبل

علي حسين علي

علي مهدي حسين

عباس حسين عبود

إشراف

م. م. علي مالك تريك

نيسان ٢٠٢٢ ميلادية

رمضان ١٤٤٣ هجرية