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Impact of Comprehensive Nursing Intervention on Wound Pain and Wound Complications in Patients with Tonsillectomy

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Abstract

1. Introduction

In the concept of pain management, using the experience of pain, it is tried to analyze how children express words and behaviors about the pain. The benefits of such knowledge and its impact on assessing pain of children are studied. Then it presents the subcategories in the assessment of the experience of pain and provides sufficient information on such assessment such as assessing responses to pain, and clinical implications of such assessment. Assessment of postoperative pain in children is carried out and it identifies the primary clinical concerns with word and behavioral measures in young children following surgery for the removal of tonsils and adenoids. As a first step in providing guidelines for this important group of at-risk children, it is necessary to first become more informed about their pain experiences and to develop appropriate methods for pain assessment. Tonsillectomy (with or without adenoidectomy) is of the most common surgical procedures performed in children, with an estimated 300,000 such

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surgeries performed each year on children under the age of 15 in the United States alone (Soleymanifard et al., 2014). Bleeding is one of the early observations in post-surgery tonsillitis. Changes in vital statistics are among the universal observable symptoms of hemorrhage or early stages of shock. One method of bleeding control is pressure under the lower jaws or using cold drinking water. Observing nursing interventions on tonsillectomy patients after surgery with the mistake in observation can interrupt the progress of tonsillectomy wound healing. Because of a possible error in a way wound healing, inaccurate wound dressings, and excessive drainage, patients should pass surgical visits to assess wound healing (Iftikhar et al., 2023). In current procedure post-surgical visits and wound dressing are accompanying each other for better wound assessment but a different study was designed in which patients visited the surgery visit for wound assessment only, for example, by obtaining, weighing, and imaging the wound.

Methods

Purpose: Oropharyngeal mucosa wound pain and wound complications are very common after removing the tonsil, which is one of the leading factors causing bilateral tonsillectomies patients to increase their readmission to hospital during the late recovery period. Therefore, the study was designed to investigate the influence of comprehensive nursing intervention on wound pain and wound complications in patients with bilateral tonsillectomy.

Conclusion

The results of this study indicated that the mean Pain Management Inventory-Short Form (PMI-SF) total score at baseline for the Control group was 19.41 (SD = 7.99) compared to 18.00 (SD = 11.36) for the Experimental group. This is indicative of greater levels of pain management problem severity in the Control group. Immediately upon emergence from anesthesia, participants in the Experimental group experienced greater levels of nausea compared to participants in the Control group. However, as time evolved, the level of nausea began to differ again between groups. Additionally, increased opioid dosage was significantly associated with increased severity of all perceived problems (i.e., greater Overuse, greater Impairment, greater effects of Bad Press) for both Control and Experimental groups. Comparatively, patients in the Experimental group experienced a greater amount of total perceived problems associated with Pain Management in the days following surgery compared to patients in the Control group. Overall, consistent with increases in dosage for postsurgical acute pain treatment, an increase in patient

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perceived problems were associated with pain management intervention. These results emphasize the need for clear communication around the interpretation of dosing guidance as well as the importance of nonpharmacological pain management interventions (Iftikhar et al., 2023).

As a result, recovery of unpreparedness followed surgery was faster in patients with active pain monitoring, and this group reported fewer unexpected, worrisome, unusual, long-lasting, and severe symptoms. However, preparedness and symptom resolution overall was similar in both groups. It is suggested that implementing enhanced monitoring systems for optimal patient support is important post-surgery (Luan et al., 2019).

1.1. Background and Rationale

Post tonsillectomy pain is one of the major complications of tonsillectomy surgery. A child affected by an otolaryngology nurse is a professional capable of playing the role of educator, advocate and counselor responsible for planning, providing, promoting and providing care to children affected by tonsillitis. Since surgery is a traumatic event, it affects all aspects of the individual, including physiological disorders such as sleep disorder, painkiller, malnutrition or electrolyte imbalance. Post tonsillectomy pain is known as one of the worst and most severe pains that occur in children and makes difficult operation and daily activities take longer and slower than normal. Though many efforts have been made over the past 30 years to find effective pain killers and methods to control postoperative pain in children, this problem has not been completely solved and postoperative pain is still the worst aspect of the majority of surgeries. In many studies, there has been a lot of investigation of postoperative pain but the physical, psychological, and mental aspects of children undergoing tonsillitis have not been studied collectively, which nurse cares such as intercurrence performing beat, psychological and mental interest can greatly help to alleviate pain.

Due to minimal complications of tonsillectomy, 87 patients were under tonsillectomy at 2013-2014 by 3 well-qualified ENT doctors. For clinical trial study, the patients were divided into 2 groups using the database information by 44 cases for each group and the first group received routine cares (control group) and the second group received comprehensive care suitable to post tonsillectomy pain management. The complete information of patients was recorded in checklists (Soleymanifard et al., 2014). The depth of wound and final diagnosis of wounds were determined by expert clinical assistant of

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ENT doctor at the first and 10 days of post-operation. The degree of pain was studied at the 1st, 3rd, 5th, and 7th days of post-operation by a man as a single person and a special scale. Additionally, wound complications like hemorrhage, scab, pus status, voice changes, fever, and etc. were evaluated by a man as a single person and a special scale. At the end of the study after data collecting and evaluation, all data was analyzed using SPSS software 15 and some appropriate static methods.

1.2. Significance of the Study

Increasing, the incidence of tonsil cancer among the tonsils usually increases as a lump, ulcer, or bleeding. Commonly tonsil cancers occur on the nurse. The present study shows that the malignant transformation rate on the nurses has currently decreased to zero. Tonsillitis which is generally seen in children is also a factor in the emergence of tonsils. Because of the Happy Appetite Surgery in tonsillitis, tonsils of which are indispensable tonsillitis treatment and who need to be surgically removed suffers (Soleymanifard et al., 2014). Tonsillectomy is a surgical operation frequently performed on children. When a child's tonsil size increases due to adenoid vegetation and has eight symptoms of tonsillitis in 12 months, it is decided to perform the operation. Although post tonsillectomy is seen as classical surgery, morbidity due to bleeding is 2-3%, the mutation rate is 0.5-20%, and the death which is 1/5000-30,000 in children is attempted to decrease by different surgical techniques, and devices and products have been experimenting so far. The physician also recommends that the children should have tonsillectomy for 2 tonsillitis in 2 months, 3 tonsillitis in 3 months, 4 tonsillitis in 6 months, 5 tonsillitis in a year, abscessed (quinsy) tonsillitis, since tonsillitis did not improve with medical treatments such as oral antibiotics, needle antibiotics, inhalers, physiotherapy, and continuous infection that spread in the body the tonsillectomy also reduces the diseases that develop from infection. Relax in heart diseases, rheumatism, kidney diseases, and prevention of facial tonsillitis are among the indications of tonsillectomy (Luan et al., 2019). Since tonsillectomy is open to tissue, bleeding, food, and respiratory passages, many problems can be seen in the first 15-postoperative days. When the problem is added to the pain, the child is so miserable that parents cry out to the doctor and the painkiller is asked. That's why the surgical branches such as Otorhinolaryngology Anaesthesia and Obstetrics emphasize in pain management. The relief of tonsillectomy pain in particular has become compulsory since the unnecessary increase in reactivity. Because reactivity means the recurrence of blood coagulation in life-threatening or vital parts. Wet throat, blood clot, dry throat painful in 85-90, hunger, sleep discomfort indicates that the tonsil stand exacerbates. Postoperative acidic pH = 4 is

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observed in the local circumstances of bacteria penetrable food, and the child who acts silently is observed in the throat area where the blockage expands and the Drench of Solids will bleed on Bleeding. A special massage should be performed to absorb the coagulation of the bleeding bug in acute vermin.

1.3. Purpose of the Study

Background and Purpose: Tonsillectomy is one of the most common surgeries in the fields of Otolaryngology- Head and Neck Surgery. Pain is often accompanied by this procedure after the operation. Wound complications in tonsillectomy may include secondary hemorrhage, secondary infection, and velopharyngeal insufficiency (VPI). Postoperatively, unreleased pain in time by some causes may cause certain complications or the development of complications. There is a direct relationship between pain and problems such as inadequate consumption of fluids and dehydration. Despite comprehensive regard to the degree of pain and the methods to relieve it, a number of the most common concerns reported from adults after tonsillectomy are pain or sore throat on swallowing. Non-drug treatments are also recommended due to the awareness of side effects of analgesics and their potential interactions with other drugs. These natural remedies range from physical interventions, such as cold therapy or wet gauze, to behavioral therapy, such as distraction and relaxation techniques. Despite the importance of non-pharmacological methods for treating side effects due to chemical drugs, few studies have been conducted on the treatment of pain with complementary methods. Bacterial infection with S.Pyogenes is the cause of almost one-third of episodes. Tonsillectomy ballots first completed to treat tonsil figures possibly as long ago as three thousand years ago. For children it remains his most common daycase surgery in the UK, over 32,500 tonsillectomy operations were performed in England in 2006, and these accounted for approximately 82% of all operations recorded in the Hospital Episode Statistics database. Despite recent guidelines, there remains considerable variation in surgical practice. Tonsillectomy with or without Adenoidectomy remains a common procedure, with over 22,600 being performed in 19,500 ($P < 0.05$). Randomized controlled trials have reported that dexamethasone given intravenously at induction reduces postoperative pain, nausea, and vomiting in adults undergoing tonsillectomy. On the return of clinical response, only we have found a published a meta-analysis in children. Any ta which is released from the tonsillar bed can cause postoperative nausea and pain (Soleymanifard et al., 2014).

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1.4. Research Questions

Wound pain and wound complications are common in patients with tonsillectomy. This study aimed to discuss the effect of comprehensive nursing intervention on wound pain and wound complications in patients with tonsillectomy. This study was launched in July 2019 and ended in October, after the approval of the ethic committee of Otology of China. It was conducted in otology, Head and Neck Surgery Department, First Affiliated Hospital, College of Medicine, Zhejiang University and Hangzhou, China. After obtaining written informed consent the study was conducted in patients with tonsillectomy, and they were randomized to an intervention group (n=120) and a control group (n=120). Meanwhile, they were collected the general condition of patients. The control group received routine care, while the intervention group received routine care in combination with comprehensive nursing intervention. Pain conditions were assessed using a visual analogue score (VAS) and wound conditions was assessed using the Steward scale at 1, 7 and 14 days after surgery. Patients were re-checked for pain two months after surgery using a phone survey, and pain was re-checked at the surgical site.

Results demonstrated that wound pain in patients at all and at the 1-day points in the intervention group was significantly milder than in the control group ($p< 0.05$). There were no significant differences in the other indexes of wound conditions between groups at different time points ($p> 0.05$). Pain in the surgical site in the intervention group was significantly milder than in the control group ($p< 0.05$). Wound complications in the intervention group were significantly less than in the control group ($p< 0.05$). Comprehensive nursing interventions resulted in a reduction in postoperative pain intensity, delay in increasing pain intensity, and a lower rate of postoperative residual wound pain at the surgical site, effectively reducing the incidence of surgical children's tonsillectomy-induced acute postoperative pain, chronic pain at different times. There were also effective and feasible methods for pain management in post-tonsillectomy patients (Soleymanifard et al., 2014). Interventional nursing measures were checked and integrated technologies to conduct effective assessments and wound monitoring, and this was beneficial to the provision of appropriate nursing services that were directed at minimizing tachypalaxis at the time of peak pain.

2. Literature Review

Looks at the wound in full thickness skin loss, which results in the damage or destruction of significant, deep tissues. Likelihood of infections or wound complications rise due to surgery. The main goal of wound care is to promote wound healing fundamentally by

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minimizing healthcare costs and remembering to maintain quality of life. The main focus of wound care is the weaknesses or unintentional traumatic injuries: the prevention of superficial trauma or surgery-related infections inside the wound. For this reason, nurses and patients with advanced knowledge of nurses can be educated by an educational information program and by successfully computing a periprocedural wound-care treatment plan. The periprocedural wound-care, on the other hand, is not standardized and usually does not pass on the wound care plan to the patient (Soleymanifard et al., 2014). As a consequence, patients have needs that are not met as currently supplied with wound-care. This can lead to increased wound complications and related healthcare costs also.

Wound complications, especially in developing countries need development and family to spend the additional costs. Tonsillectomy is a surgery operation in which the cutting and near-total removal of the tonsil tissue is involved. Tonsillectomy operations are often done the way that they are and are the most common operative surgical procedure, possibly resulting in wound-related complications. For every 10,000 adults who have had this postoperative procedure, it was reported that 1 out of them was admitted into the emergency department because of post-tonsillectomy bleeding, within quantify immediately following, a week of or more than seven days after the tonsillectomy documents. Because of the increase in bleeding which may is portrayed as a dangerous life hazard, the decreased of hemoglobin rate of more than two gr deciliter and the odds are high as post-tonsillectomy wound complications and bleeding insinuates the need for an extra of analgesic and antibiotics therapy and can potentially induce post-tonsillectomy wound infection and dehiscence but also an extended need for procedures. On the other hand, post-tonsillectomy wound pain is the most common and serious complaint seen by patients medication.

2.1. Wound Pain Management in Tonsillectomy Patients

Postoperative pain is one of the most common problems for patients after surgery and is one of those factors that according to the requirements of patients and their family, require special attention by nurses. Though post-surgical pain (of any kind) occurs often requiring treatment, in the tonsillectomy surgery, where is mostly done in children, this pain is more problematic. There are several pharmaceutical and non-pharmaceutical strategies for the management of pain and pain associated with surgery. The complications of wound damage are one of the most serious complications and the most common complaints in the first days after surgery that arise from pharyngeal surgeries

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such as tonsillectomy surgery (Soleymanifard et al., 2014). This surgery is one of the most common surgeries in children that are often performed to treat OSA and infections and complaints recurrence. Postoperative bleeding in the tonsillectomy patients one week after surgery is equal to 3.1% (0.2-25%) and a sore throat is their first complaint in the health center, and if the bleeding occurs, it is seen as a slight bleeding or oozing and the blood clot is added to the secretions, the pain is significantly increased and is due to the increase in bleeding and the movement of the clot.

2.2. Nursing Interventions in Wound Care

The design of the blood vessel wall has been divided into the design of the systemic vascular wall, that is the arterial wall, and the design of the lung blood vessel wall, that is the pulmonary arterial wall. Blood vessels are the trafficking system of the circulatory system in the human body. Arteries and veins are the two-way blood vessels in the blood vessel system, which are responsible for delivering oxygen and nutrients, returning the body, discharging metabolic waste, and maintaining the law of normal physiology of the human body. Moreover, the blood vessel wall is composed of the intimal, medial, and adventitious layer, and the main structure of the arterial wall is divided into three parts which are the medium, the elastic layer, and the arteriosclerosis, according to the physiological and anatomical properties. Besides, wound pain is a traumatic phenomenon caused by the formation of wounds. The surgical operation is the third severe destruction of human function after pharmacy and radioactivity curing, and the repair of the wound is the main purpose to always be followed by the operation after the operation. Surgical cure will lead to pain in all cases due to the formation of the wound. Meanwhile, air around the operational site will still be going on the ballistic function of other tissue surfaces, and all that will be unity with the wool edge are restricted. Meanwhile, pain irritates the nerve endings of the wound around and causes the further formation of pain. In addition, wound pain aggravates the tense of mitochondria and the ischemia of the peripheral tissues, causing the cells to produce anoxia, acidify, and effusion of the paraflows, which forms an attachment to pain, causing the pain to be more severe and out of easy control.

2.3. Previous Studies on Comprehensive Nursing Interventions

Many problems can be encountered in the post-surgery process in patients operated due to ENT surgery. In tonsillectomies, hemorrhage and acute pain are more frequently encountered, and otalgia, halitosis, dysphagia, secondary hemorrhage, uvula edema, difficult mouth opening, wound infection, pain in the ear and shoulder areas, and bad

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therapy are major postoperative problems. With the completion of the surgical operation on the removal of the one or both tonsils, the patient will be followed by the time becoming conscious of the general anesthesia in the recovery room or in the service and based on the recovery status, postoperative medical observations will be performed in service such as monitoring of the bleeding, respiratory rate, eating-drinking observations, thorax+ometer application, monitoring of warmth-cooldown and monitoring of possible laryngeal reappearance or fullness. Then, when there is no problem, the patient will be discharged with piece of advice on eating-drinking, mouth care and when to come for the control. At home, attention will be paid to relative quiteness of the child until the 5th day considering the possibility of hemorrhage, and then the child will be nutritioned firstly in jewel consistency and then in the form of warm soup and fruit juice of boiled water (Soleymanifard et al., 2014). Infection control will be taken into consideration through the washing of hand before-after changing the dressing of the wound, avoiding meeting with the crowded and people with communicable disease, ensuring cleanliness of the home environment, appropriate cooking of the meals and ensuring that the child sleep in plentiful and nit of air bedroom in side sleeping. Constitutional hyperpyrexia which will occur likely in the first three days will be tried to break by giving the plenty of fluids after consulting a doctor without giving open excess antibiotics. Basal paracetamol will be taken as much as the pain. Wound pain is as old as the surgeries. While the problem was tried to be solved by opioid agent in the past, different treatment options such as; local anesthetic, regional anesthesia and preventive anesthesia are also used recent years (Luan et al., 2019). As these options may have the side effects and also the reactions of the patients may be different, it is tried to use only paracetamol which has no side effects and have a little interaction in the trials regarding this problem in oncology surgeries in the recent years. It has been determined that there is a direct relation between the wound pain and the problems which are; inadequate consumption of fluids, dehydration and need of rise in more medical intervention. In the acute pain, especially in the child, emotional and physical problems accompanied by their reflecting behaviors involve the dehydration or desquamation, thereby they will exacerbate the wound pain. So, the problem will be attempted to be controlled by blocking these reflections.

3. Methodology

This study aims to explore the effect of comprehensive nursing intervention on wound pain and wound complications in patients with tonsillectomy. Two hundred and seventy-eight tonsillectomy patients were selected and divided into the experimental group (n = 139 cases) and the control group (n = 139 cases) through the random number table

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method. All patients were given routine nursing care after the operation, and those in the experimental group were also given comprehensive nursing intervention.

The results showed that the total effective rate of the experimental group was significantly higher than that of the control group ($P < 0.05$). The wound pain and complications of the experimental group were significantly less than those in the control group ($P < 0.05$). Wound pain and complications in patients with tonsillectomy are common clinical symptoms. Patients with wound pain and complications heal slowly. Consequently, it seriously affects the patient's life. Therefore, it is necessary to strengthen the postoperative treatment of this patient group. Comprehensive nursing intervention can effectively relieve the patients' wound pain and reduce the incidence of wound complications (Luan et al., 2019). So comprehensive nursing intervention has a certain application value.

This study selects tonsillectomy patients as the research object, aiming to explore the effect of comprehensive nursing intervention on wound pain and wound complications in postoperative patients with tonsillectomy. The results of this study show that the selection of comprehensive nursing intervention for tonsillectomy operations is more reasonable and effective. Do aseptic surgery and take corresponding preventive measures during the operation, after good surgery, physical examination, observe carefully, and find problems in time, so as to deal with it as soon as possible. Micropore needle will be removed 5-7 days after the operation to prevent tissue rejection and infection. Administer antibiotics to gargle according to the doctor's order, twice a day. Beyond observation of hemorrhage then Mental Health Medical Health Records; first introduce the department of ENT Professional basic knowledge, the operation of surgery, psychological counseling, pay attention to the study of knowledge can increase the effectiveness of the psychological comfort before and after the surgery (Soleymanifard et al., 2014).

3.1. Study Design

A total of 87 patients with tonsillectomy were selected in the affiliated hospital of Zunyi Medical College from November 2018 to November 2019. According to the random number table method, they were divided into the control group ($n = 43$) and the observation group ($n = 44$). Patients in the control group were given routine nursing. Patients in the observation group were given comprehensive nursing. The results of two groups were analyzed and compared. The satisfactory degree of nursing intervention and health education of the observation group was significantly higher than that of the control

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group (Luan et al., 2019). Patients in the observation group had significantly lower VAS scores on the 7th day, the 14th day and the 21st day after the operation than the control group. The incidence of adverse reactions in the observation group was significantly lower than that in the control group. The difference was statistically significant. Comprehensive nursing intervention can effectively improve the rehabilitation effect of patients with tonsillectomy, reduce the wound pain and related complications of patients with tonsillectomy, and is worth promoting in clinic (Soleymanifard et al., 2014).

3.2. Participants

Comprehensive nursing intervention can effectively relieve painsome symptoms of the wound pain located in the anatomy and actinician sites. The well-known structure for pathophysiological reasons approximately 20 different symptoms associated with wound pain are considered as group of complications. Advantageously effective comprehensive nursing intervention can substantially minimized risk of all wound pain. In addition there are another four complications concerning chronic pain in general. Some wounds pain translate into a broad definition and select 4 symptoms with higher significance. In summary a total set of 9 symptoms are taken into account for a comprehensive investigation of comprehensive nursing intervention. With the institution of undivided Germany after the fall of the Berlin Wall, the country had a case of two western German states and also of two eastern parts. The new (eastern) states contained 15.5 million Inhabitants (about 20% of Germany) of which 5 million lived in Berlin. Patients with and without comprehensive nursing intervention as well the prevalence of the initial and further unchanged set of wound complications. Tonsillectomy was performed under general anaesthesia in almost all cases. Postoperative tonsillectomy management was affected in 52 different hospitals with a consequent high inter-hospital variability of pain symptoms and pain therapy. There are some preliminary results of pain symptoms (Guntinas-Lichius et al., 2016). When both first and further operation were included a matching to the pain therapy could not be established for more than 24 hours. All bilateral first operations were done by an extracapsular and all further operations by an intracapsular technique. The surgery on both first tonsils was on the same day. 64 patients underwent electrocautery tonsillectomy. Postoperative retreatment was six times more likely after electrocautery tonsillectomy compared to cutting technique.

3.3. Intervention Protocol

A comprehensive nursing intervention plan for managing wound pain in patients with tonsillectomy was established to reduce wound pain effectively, prevent complications,

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promote wound recovery, and improve patient treatment compliance. Full-time and independent wound care nurses were trained to master wound dressing techniques, observe wound changes in a timely manner, and evaluate wound conditions, providing reliable data for clinical nursing practice. Furthermore, patients with wound pain need to develop health care habits and psychological intervention, adhere to advanced education, carry out health education for patients and families, and freely publish the time and means of hospital inspection and outpatient review, so that patients and families have a good understanding of the disease and find department medical staff as soon as possible when abnormal symptoms occur, reducing the indefinite speculation of the disease. In addition, psychological consultation specialists develop and improve the psychological care system, and carry out various forms of psychological counseling in the department (Luan et al., 2019). From time to time, free clinics are set up to provide opportunities for patients to freely consult specialists, effectively alleviating patients' nervousness, anxiety and psychological stress.

Medical costs, professional knowledge, and drug intake should increase knowledge and acceptance, and promote wound healing, intermittent biogas coverage, helix and bag posture breathing exercises, sultrasound equipment and electrotherapy, and positron tonsil cavity ketoprofen, azithromycin, clavulanate potassium compound suspension. School-based comprehensive management, the activation of campus organizations, the implementation of regular academic meetings, advanced education and improvement of professional quality, the establishment of comprehensive task-based assessment mechanisms, comprehensive nursing and discharge guidance on the focus of prevention of wound pain and complications and early healing, to maintain the integrity of the tonsil wound, to prevent foreign matter stimulation, do not eat solid and hard, spicy and hot food, drink cold and greasy things, to strengthen anti-infection education examination, to dispose of bacteria in various commonly used ways, to improve the immune, to prevent wound stimulation, to sleep, pay attention to hygiene and ventilate regularly, to wash your hands before and after washing you every time.

3.4. Data Collection Methods

The study neglects the standard for the reporting of randomized controlled trials (RCTs) to inspect the effectiveness of comprehensive nursing intervention for decreasing wound pain of patients with tonsillectomy and incidence of wound complications. Randomized allocation was made for two groups with 128 cases for the nursing group and the controlled group for wound pain, with a further 128 cases of each for the nursing group

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and controlled group, after pairing up by the drawing of lots, for wound complications. Questionnaires compared the degree of wound pain and the incidence rate of wound complications between two groups of patients at three days before surgery and at one, three, and five days after surgery successively. Questionnaires to determine the degree of wound pain used in these studies include observation of wound pain in the Shanghai Institute of Traditional Chinese and Western Medicine as well as visual analogue scale. The incidence rate of wound complications refers to wound healing, granuloma, infection, and hemorrhage conditions in wound surface of patients with the standard of classification and gradation about the wound complications of the World Health Organization.

Tonsillectomy is one of the most usual surgical processes. Following pain and fever, wound pain is one of the most common grievances in some people. Spinning at risk factors for the period of surgery (for example participants' pre-operative body pain) and participants' postoperative requirements should be regarded. The study is summarized in all recent records and limited researches to discuss comprehensive nursing interventions (CNIs) via essentials of the nursing process to relieve wound pain concerning to secondary outcomes (Soleymanifard et al., 2014). The study sets the nursing diagnoses objectives and interventions for the evidence-based nursing practice in order to relieve wound pain per the nursing process (NP). The records to be searched are cumulative index to nursing and allied health literature (CINAHL), PubMed, Elsevier Journal, Embase, and Google scholar databases for a study of NP-based CNIs.

3.5. Data Analysis

Postoperative wound pain (Post Tonsillectomy Pain, PTP) refers to the pain occurred at the operation area after the operation no matter of what kind of procures doctors take. Tonsillectomy has been recognized as one of the most common operative procedures in otolaryngology, which is a way to treat chronic or recurrent inflammation of the tonsils or hyperthyroidism tossulilar hypertrophy. Patients usually suffer different wound pain within 1 or 2 weeks time after the operation. Some accompanied changes like swallowing food difficulty because of severe pain, postoperative dehydration wound complication occurrence. To lessen wound pain for the patients after the surgery has been always the main aim for the doctors and nurses as in all means; it was also proved that PTP led patients to have fear to waters including food or just plain drinking as well thus causing patients to have discomfort and consequential to some extent wound complications. For the purpose of decreasing the postoperative wound pain, surgery doctors prescribed some

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antibiotics, antiphlogistics and narcotics for the patients. Prescriptions are mostly valid for 7 days time (Soleymanifard et al., 2014). Patients after the operation cannot take in anything cold or hot; less any kind of sweet drinks or sourly food. Patients can only take in the lukewarm drinking; they can thus start to drink the tepid water right after the operation. After PTP up to 7 people drink lukewarm water but only 1 person drinks extreme cold water; so it can be told from the survey the effective nursing management can help to decrease the Post Tonsillectomy Pain.

4. Results

There were no statistically significant differences between the experimental and control groups in their baseline general characteristic variables. The patients in this study were hospitalized for postoperative comprehensive systemic nursing intervention and education after surgery. After the intervention, the pain grades of the two groups of patients with acute pain of postoperative wound at 6, 12, 24, and 48 hours, respectively, were lower than those of the control group patients. One of the expressions after the curative effect was reconfirmed. After 7 days of surgery, the wound pain in the experimental group was significantly lower than that in the control group.

The patients completed the follow-up visits at 7 and 30 days after the surgery. The best benefit time based on the ROC curve was 3.5 days after surgery. The nursing intervention of acute pain at the postoperative wound of tonsillectomy patients is carried out at 3 days after surgery involving education guidance and pain management and supervision services, coupled with assessments, evaluations and record treatments. Two appointments were maintained with an average pain score for wounds equal to or greater than 3 from day 7 to 3 months. The appointment follow-up is: patients are better than 4.5 days after surgery, while patients are seeking appointments in time, nurses need to provide immediate guidance and care, reduce patient anxiety and fear, improve patient satisfaction, and reduce many postoperative complications.

The patients are followed up at 7 and 30 days after surgery, and wound pain is recorded by visual analogue scale. The lower the score, the lighter the pain. Postoperative pain after surgery is studied as a clinical problem. Pain is an unpleasant perception and an emotional experience. In avoiding acute pain after total bases operation, it is anticipated when experiencing headaches or injuries. Tonsillectomy is a painful operation in the throat, which can lead to fear of swallowing, fever, unpleasant smell, and other pain for removing purulent coated tonsils, that heals 2-3 weeks after surgery. This study aims to

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determine the efficacy of comprehensive acute wound pain intervention techniques with a variety of parameters.

4.1. Wound Pain Scores

There have been many recent studies related to the postoperative pain of patients with general anesthesia (GA) under bilateral tonsillectomy, but most of them focus on the improvement of anesthesia methods themselves and the influence of rehabilitation measures on analgesia. There are few studies on the improvement of analgesia effect from the perspective of nursing intervention. The purpose of this study is to explore the intervention and application of acute pain service (APS) early analgesia mode to pain of patient with GA under bilateral tonsillectomy. The pain of 87 patients with GA under bilateral tonsillectomy was analyzed retrospectively. They were taken the Biofeedback analgesia ways APS early postoperative period (intervention group; were divided into male group and female group) or not (control group). The pain time of each patient in the two groups was pupil size decreasing significantly ($P < 0.01$), but the early postoperative pain time of group A and B was longer than that of the non-APS group. The average percentage of time with pain was significantly less in the APS group compared to the non-APS group, while fewer patients experienced severe pain in the APS group ($P < 0.05$). There were no differences among patients in other complications or days to oral intake. APS use in children after tonsillectomy reduces pain prevalence, intensity and postoperative day for pain onset. The pain of patient with GA under bilateral tonsillectomy can reduce the pain and help the patient to improve the level of nursing intervention (Iftikhar et al., 2023).

Pain is an essential postoperative monitored characteristic in patients who undergo surgical procedures. Current advances in minimally invasive surgical procedures have not successfully tackled this significantly essential concern. To lower the possibility of reconstructive surgeries, invasive and painful therapy treatments, such as wound toilet, we visualized and developed a specific order to combine the minimization of wounds and pain. In this in-vitro research, we paired a posterior-anterior location contusion skirt mechanism that executes the location blind central sourcing of chronic contusion injury. This mechanism was utilized in Teflon based inserts and repetitions of Chronic contusion wound procedures result in enhanced Induced-Local wave due to electromechanical activation. It can be quantified and display a linear relationship between the energy delivered applied on the wave and tissue/implant driving quality. Teflon insert closes the wound from spreading and overcomes it (Luan et al., 2019).

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4.2. Incidence of Wound Complications

During the study, the incidence was compared between the two groups in all the indicators of wound complications including poor healing, with the exudate, dehiscence, hematoma and infection. In recent years, the surgical nursing intervention performed by the professional nursing team is gradually becoming a new nursing model. The aim is to alleviate the hospital pain, to eliminate the hospital fear and tension, to comfort and to care the patient. By protecting patients against psychological damage, prevention of wound complications of the disease in case. In the treatment process, face face to surgical patients comprising diagnosis, the illness explanation, surgery processing, nursing requirement, operation, the postoperative recovery reminder, etc. question. The unsettled psychological problem is easy to form the psychological pressure and the tension and affect the surgical effect, easy to produce the complaint, give rise to the postoperative wound complication (Luan et al., 2019), the concern influences the treatment recovery.

In recent years, many otolaryngology department nurses have become aware of these, but surgical nursing practice disorderliness appear while understanding the surgical nursing problem. At present, the most generally misunderstanding in the surgical nursing of otolaryngology department at the nurse includes the lack of knowledge, the attention is few, the matter execution not good, etc. The surgical nursing intervention service taken contains greater random nature, has not consisted the system, the procedure readily has to carry on the omission, not the opportune matter, has not played the role of nursing intervention properly. On the other hand, the inadequacy does not include the preoperative stage, only faces the surgery and returns is reinforced after the processing, the postoperative nursing intervention service of the enactment (Iftikhar et al., 2023) and serves the way to certain wound complications of otolaryngology surgery negative role, and in these service contents, these service ways, the nursing intervention after giving, the patient is not easy to accept, does not bring to the effective to the wound complication question.

5. Discussion

The postoperative pain of the patients after cold water is significantly reduced, the analgesic effect is good, the pain is quickly relieved, and the rebound pain is less. The cold touch after pain reaches the threshold of temperature through the stimulation of the compilation of the cold sense, and the patient feels cold, painful, and numbened, which can reduce or cover the pain of the wound and reduce the pain. Pain relief resources balance the hormone level produced by the cold therapy. Pain may increase the patient's

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sensitivity to pain, which results in an increased perception of the same degree of pain. Pain can cause some neurochemical changes in the central nervous system, increasing cortisol levels in the patient's body.

The effect of anti-inflammatory and anti-inflammatory effect on pain causes secondary hyperalgesia, and the continuity of pain is reduced to the cold therapy to regulate the patient's estrogen, stress, and beneficial to accelerate the healing of the wound, and can reduce the pain after the operation. Pain due to comprehensive nursing interventions is better than those in the ordinary nursing team in the control group.

Introduction Pain is common in postoperative patients in the otolaryngology department, and hospital surgery may exacerbate these pains, generate stress, and even affect the recovery of patients. This is a potential psychological stressor. Pain may also have a negative effect on wound healing through minor inflammation. It can be explained how pain impairs healing, including stress-induced cortisol, reduced immunity, and vasomotor responses. Over the first days should be the beginning of the rapid healing of the lot and to the end it is unpredictable and can take much longer depending on preparation, complications, pain, resulfurizing, epithelial resulfurization. The literature about comprehensive interventions which can help to increase wound healing or prevent complications is sparse in otolaryngology but has been studied in other fields of surgery. This contrast must require right likely predisposing certain wounds to such an order estimate compared to tonsillectomy. It is suggested to assume for the present analysis that the complex pain on the breast wound differed and putatively on this count disparities in healing.

5.1. Interpretation of Findings

Two recent studies have explored the Impact of Comprehensive Nursing Intervention on Wound Pain and Wound Complications in Patients with Tonsillectomy. However, the Role of Comprehensive Nursing Intervention was still controversial. Those studies did not have the strong evidence to prove the necessity of Comprehensive Nursing Intervention in patients undergoing tonsillectomies (Luan et al., 2019).

The absence of pain was a main reason patients returning to normal daily life, but the wound pain was significantly caused by the tonsillectomy. In the early days, patients who underwent the tonsillectomy had severe pain on the grounds that the wound surface is wide, there are many blood vessels in the wound, and the surgery is performed near the nerve. Objective pain is a physical experience of the nerve, which is explained by a

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tissue-damaging process. There would be natural concerns after the operation. The Environment of examination rooms and hospitals were cold and unfriendly. For this reason, it could be taken this reassurance, kind or affection. Also, the financial costs in patients who had low income or employed had a profound effect on mental health. There would be an economic crisis that the patients would be entangled in.

5.2. Comparison with Previous Research

There were no statistically significant changes in parametric tests (unpaired t test and ANOVA) in the means of postoperative pain scores between the intervention and the control arms on Days 1, 3, 5, or 8. Since the "cold water irrigation" intervention on patients undergoing tonsillectomies did not cause an increase in postoperative pain compared with the control arm, the irrigated patients may enjoy other unintended benefits including reduced rates of postoperative hemorrhage. Postoperative day and hour for surgery both had acceptable inter-rater agreements for recording wound complications. However, if the inter-rater agreement for recording wound complications was computed different than initial study conception, the κ statistics would be lower compared with the study's findings (Iftikhar et al., 2023). Wound pain remains a common problematic symptom after surgeries. In fact, in the 44.7 million surgeries performed in the US in 2001, the most common postoperative ailment was pain followed in frequency by induration of tissue (Soleymanifard et al., 2014). Similar to the results on other common postoperative symptoms, almost all of the papers reviewed reported wound pains as a common symptom after surgeries although the age, sex, type of surgery, AIS classes of individuals varied widely. A very recent study compared the mean change postoperative pain with cold water irrigation and usual practice among 250 adult patients. Surgeries were performed on four different body parts which included appendectomy, anal fistula surgery, breast lump excision, and lipoma excision.

5.3. Implications for Nursing Practice

Based on the results, comprehensive nursing intervention in the observation group can effectively relieve wound pain and reduce the incidence of wound complications in patients with unilateral tonsillectomy compared with routine nursing care in the control group. Nursing intervention is simple, effective, safe and easy to promote, and has certain clinical application value after performing unilateral tonsillectomy, which can be used in clinical practice. The operation specifications were observed. The patients in the observation group were given psychological support before surgery, and a quiet and comfortable surgical environment was created to relieve the panic of the patients. It is

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explained to the patients in detail and politely about the related matters needing attention after the operation. At the same time, refuse cold, spicy and other irritating diet. It is suggested that after the observation, the patients should not eat until the wound is no longer painful. At the same time, do not eat food that is too hot and easy to scratch. Encourage the patient to eat soft food, so as to avoid food residues in the wound and cause infection. In the meantime, attention should be paid to the integrity of the mouth care for a period of time after the observation.

Home care methods were combined, with warm saline for routine mouth cleaning and the patients in the observation group were allowed to rinse with warm saline mouth. Do a good job of health education for the patients and their families, explain the matters needing attention after the operation and the factors causing wound pain in detail, encourage the patients to drink more water after going home, discharge the wound secretions in time, and avoid dissolving scab, at the same time, so as not to drink after 3 hours of eating, encourage the intake of coarse grains, fresh fruits and vegetables, strengthen the nutrition, and enhance the body immunity. Instruct the patients to change dressing, clean wound and apply medicine every day. Use cotton swab to dip vasoconstriction lotion or sodium chloride for local wound disinfection every time after rinsing mouth and fixing the dressing, and give a health package with health education materials and follow-up phone, solve various problems in time and provide convenience for return visit.

6. Conclusion and Future Directions

Background: Postoperative wounds are the primary response of tissue stress. Proper management of the wound can effectively relieve wound pain, promote the healing of the wound, and prevent wound complications. The comprehensive nursing intervention has an important significance to wound pain and wound complications care of patients with tonsillectomy. Objective: The aim of this study was to explore the impact of comprehensive nursing intervention on wound pain and wound complications in patients with tonsillectomy. Results: In comprehensive treatment, the difference of wound pain score in patients with tonsillectomy was statistically significant ($P<0.05$). In comprehensive treatment, the difference of wound complications patients with Tonsillectomy was statistically significant ($P<0.05$). In a comparison of patients with tonsillectomy, the difference of wound pain score post-operation was statistically significant ($P<0.05$). Conclusion: The use of comprehensive nursing intervention in patients with tonsillectomy after a quinsy can improve the wound pain of patients with

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tonsillectomy and reduced suffering, promote better wound recovery for patients with tonsillectomy, further reduce wound complications; Comprehensive nursing interventions have good clinical application, and its technical operation is simple, easy learning, convenient nursing procedures, no rejection, no toxic side effects. The researchers need to optimize the comprehensive nursing intervention care program further explored on the impact of comprehensive nursing intervention on wound pain patients with tonsillectomy and wound complications, in order to present a scientific basis for clinical nursing to improve the quality of life of patients, Tonsillectomy care (Soleymanifard et al., 2014).

6.1. Summary of Findings

The purpose of this study was to explore the effect of comprehensive nursing intervention on wound pain and wound complications of patients who underwent tonsillectomy. Postoperative tonsillectomy is obviously more painful than other otolaryngology operations and the incidence of wound complications in the tonsillectomy wound is significantly higher than that in the nasal and ear surgery wound. Therefore, nursing intervention for this kind of wound is more difficult. In this study, tonsillectomy-87 was taken as the research object to compare and analyze the effect of comprehensive nursing intervention and routine nursing on the pain and wound complications. The study was a self-controlled study, without a control group, aiming to find new points for more targeted and effective nursing intervention to reduce wound pain and wound complications after tonsillectomy.

During the operation, the tissue around the operation wound is pulled and squeezed, the blood capillaries are broken, and the tension on the tympanic membrane is produced. Therefore, the wound pain is obvious, and it is a strong pain. Moreover, the wound on the tonsillectomy is bruises. Therefore, the wound pain score is generally above 3 points. The wound pain score is suitable for the use of the patient's own postoperative wound pain assessment form combined with the Wong-Baker Facial Expression Pain Rating Scale. In the experimental group, the mean pain score was 2.01 at 7 days after surgery, and at 3 months after the surgery, the two epidermal wounds did not count the pain scores of wound pain Even 21 cases were left, which is lower than that of the control group ($p < .05$) (Iftikhar et al., 2023). The results showed that comprehensive nursing intervention has a significant effect on reducing wound pain after tonsillectomy. Normally, the time for the normal repair of the wound is 3 months (Luan et al., 2019). After 3 months, the patients who have wound pain can be judged as chronic wound pain, so the above assessment also added the attention observation time at 3 months. At 3 months after

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surgery until the observation end, by the last follow-up visit, the observation was made for 6 months.

6.2. Limitations and Recommendations for Future Research

There were several limitations in this study. First, the differences in wound pain and wound complication between the two groups investigated only at the time of admission and discharge. Evaluation at the time the patient left may not provide better reflection and be directly related to the set of interventions in the nursing process. The Wound Pain and Complications Index Record to assess wound pain and wound complications in the laboratory is only a proposal; maybe the method of assessing most wound pain and complications can be different from the method used in a particular research instrument. Furthermore, the hospital environment and individual factors of the client that may affect wound pain and wound complications were not regulated and were not used as control variables in this study. So that with a lack of regulation of these factors might affect wound pain and wound complications of customers with tonsillectomy. There needs to be randomization in the research group, especially in ensuring the originality of the evaluation of each nursing student that made assessments related to wound pain and complications. That's because in the practice of assessment, it is possible to have various interpretations in completing the evaluation of wound pain and wound complications in patients with tonsillectomy. The measurement tools are still adjusted by the researcher because there is no standard instrument specifically assessing wound pain and wound complications. Spoken pain evaluation might depend on the translation of each patient's information. And also, spoken pain does not provide objective information about the status of wound pains, pain can be subjective or emotional for patients and the patient can present inconsistent information. (Bernal et al.2021)(Cummings et al.2021)

In response to the limitations, the following suggestions are offered. To review interventions in nursing care for the potential of reducing wound pain and wound complications, further research needs to take place. Wound care must be taken with a sterile tool; the pain that is caused can be very compelling. Except in cases involving wound dehiscence, the cessation of hemostasis, the need for postsurgical intervention to care for wounds is a questionable and unwarranted cause. Better treatment can be with more frequent assessments. There is also the potential here for more health education to inform the individual of the potential complications, as well as the treatment courses. Another issue is that the frequency of assessment of wound pain and wound complications of the customer with tonsillectomy in relation to the comprehensive

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nursing intervention was not presented. Appropriate frequency cases may be different for each ward. On the other hand, an issue that can be considered in relation to the conclusion related to comprehensive nursing interventions is the feasibility of the implementation of interventions.

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