



Thoracic Surgery Nursing Applications of Rapid Rehabilitation Nursing

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Abstract

This report examines controlled trials to investigate the impact of quick rehabilitative nursing intervention in thoracic surgical nursing. This study first creates a control group and a test group. Traditional nursing techniques are used in the control group's thoracic surgical nursing intervention, while quick rehabilitation nursing techniques are used in the test group's addition. Also, both the control group and the test group have the same operating and recovery circumstances. This study also records real-time rehabilitation data, processes data using statistical techniques, and conducts follow-up surveys on patients' recovery progress. This essay also contrasts histograms and data to compare the impacts of nursing. The research's findings show a number of aspects of the patient's recovery process as well as user satisfaction with the speedy rehabilitation. The rapid rehabilitation nursing method can have a favourable impact on the nursing of thoracic surgery, as evidenced by the fact that nursing is higher than those of the control group.

Keywords: Thoracic surgery, Nursing, Postoperative pain, Rapid rehabilitation, Nursing techniques, Applications

INTRODUCTION

Thoracic surgery patients undergo a tremendous deal of trauma during surgery. Thoracic surgery has the most sources of pain and irritation compared to other types of surgery, including surgical incision, rib and sternum destruction, rib bone spreader injury to the intercostal nerve, intercostal muscle cutting, and stimulation and compression of the thoracic drainage tube. These noxious stimuli have numerous, intricate conduction routes. As a result, it causes postoperative patients a lot of agony. Surgery in the thorax is the most agonising procedure. In addition to causing the patient significant agony, the pain also causes a number of pathophysiological responses that are not helpful for the patient's postoperative recovery (Pachella LA, 2019).

Lung cancer is the most frequent condition treated in thoracic surgery. Lung cancer patients make up roughly 40% of patients undergoing thoracic surgery, according to reports. Esophageal and gastric cancer is the second disease, and lung and esophageal benign disorders are

rather uncommon. And last, the most common mediastinal tumours and cysts, including thymoma, are mediastinal disorders. Esophageal cancer is relatively common in our nation, and China is home to 60% of all esophageal cancer cases worldwide. Esophageal cancer deaths make up 23% of all tumor-related deaths in China. Esophageal cancer and gastric cardiac cancer incidence and death in our nation have slowly decreased in recent years (Tomaszek L, 2019).

This is inextricably linked to the emphasis placed by our nation on esophageal cancer prevention and control, as well as the on-going improvement of inhabitants' dietary status, lifestyle choices, and living conditions. The source of embryos is complicated, and a wide variety of tumours and cysts can develop since the mediastinum contains so many different tissues and organs. Thymoma, neurogenic tumour, teratoma, different mediastinal cysts, and in trathoracic goitre are the most prevalent primary mediastinal tumours in Chinese. A tiny percentage of primary mediastinal tumours are malignant, although the majority are benign. Patients with primary mediastinal tumours, whether benign or malignant, should undergo surgery as soon as feasible

to try to remove the tumour if there are no obvious distant metastases and respiratory or circulatory problems.

Following thoracic surgery, patients may require a variety of monitoring and drainage tubes, including ECG monitors, oxygen inhalation catheters, chest tubes, urine tubes, and gastrointestinal drainage tubes. The patient feels quite uncomfortable, especially with the chest tube and urine tube in place. In addition, one of the main reasons why patients have postoperative pain is the chest tube (D'Agostino F, 2017).

According to experts, preoperative anxiety and dread can lower a patient's pain threshold, causing them to experience more severe pain during or after surgery and to feel less self-conscious about the procedure's outcomes. Due to their psychological coping techniques of avoidance and denial as well as a lack of adequate psychological preparation, patients with preoperative anxiety levels that are too low can easily see the real unpleasant experience induced by the procedure as a significant blow after having it. On the other hand, patients who experience modest levels of preoperative worry can mentally prepare themselves enough for the procedure and the different issues it may bring up.

As a result, they are better able to adjust to the diverse operating and operational settings. Also, the patient recovers more quickly from surgery and feels well afterwards. Studies have also revealed that surgical patients' high levels of worry are not just present before the procedure; they continue to suffer significant levels of anxiety after the procedure for a large number of patients. Moreover, some patients may experience a variety of severe psychological side effects following surgery, which has an impact on the prognosis. Postoperative depression, postoperative psychosis recurrence, and postoperative consciousness problem are the most typical abnormal psychological reactions.

The literature examined the needs and discomfort of 31 thoracotomy patients in the immediate postoperative period. The findings revealed that 16% of patients experienced severe pain in the closed thoracic drainage tube incision 24 hours following surgery, even after receiving continuous analgesia. Yet as soon as the tube was taken out, the discomfort gradually subsided. The pain of urinating after the catheter is removed has also been described in the literature, as has the irritation brought on by the indwelling catheter following surgery (Kehlet H, 2008).

With the increased demand for quick recovery, surgical techniques have improved, perioperative care has become less intrusive, and doctors have begun attempting to reduce postoperative stress reactions in their patients. Expedited surgical rehabilitation has also become popular. Yet, surgery as a kind of treatment also involves purposeful harm. Trauma that is mediated by cytokines, nitric oxide, and free oxygen radicals can alter the patient's body's physiology and psychological state and further harm healthy tissues.

Multimodal therapies, on the other hand, are thought to lessen the negative consequences of surgical harm and hasten patient recovery by reducing the stress response of surgical procedures. The quickest return to eating, avoiding mechanical intestinal preparation, preoperative patient education, minimising problems, avoiding hypothermia, and using the fewest medications are now the most effective intervention strategies (Zhu G, 2020).

In order to decide whether a patient is suitable for the application of the ERAS concept and to assess the expected effects and potential risks that can be achieved by doing so, it is first necessary to assess the patient's nutritional status and physical condition, as well as actively communicating with the patient and their family members. Multidisciplinary consultation is required for patients who have malnutrition, cardiovascular disease, or other underlying illnesses in order to address the patient's fundamental condition and assess whether they are eligible to enter the ERAS group-related routes. According to the literature, patients with no heart, brain, lung, kidney, or other organ dysfunction disorders who are managed using the ERAS management approach recover after surgery more quickly (McWilliams MM, 2017).

MATERIALS AND METHODS

Among 428 patients undergoing thoracic surgery in a hospital between January 2019 and March 2021, of which 55 underwent lung and 145 underwent esophageal surgery, we choose 200 patients. In addition, the age range of the 150 males and 50 females is 31 to 79. The following are the common symptoms among the cases that were included in the study: the patient is awake, the cardiopulmonary function test performed before to surgery is normal, the male smoker has been smoke-free for more than two weeks, and there is no prior history of diabetes. Also, all patients have double-lumen bronchial intubation anaesthesia, fentanyl + propofol intravenous anaesthesia, and penicillin antibiotics are administered the day before and throughout the procedure. Those with chronic heart and lung disease, diabetes, extreme obesity, severe malnutrition, wound infections, haemorrhage, thrombotic veins or lymphatic, varicose veins, and people who are unable to endure vibration are some of the exclusion criteria. They are split into two groups in accordance with the principle of randomization: the control group (100 cases) utilised traditional back-patching to help sputum, while the test group (100 cases) employed a vibration sputum machine (Prieto R, 2021).

Many times, this procedure is done. In order to encourage the patient to cough at the conclusion of inhalation if the patient's cough response is weak, the nurse must lightly push with a finger the area where the lower edge of the cricoid cartilage meets the sternum. Alternately, the nurse can glide laterally while lightly pressing the patient's trachea in the suprasternal fossa. This manoeuvre can be performed multiple times to excite the trachea and cause the patient

to cough up deep phlegm. The patient does not experience pain as a result of the knocks because the nurse knocks the air between the patient's hand's palm and the patient's chest wall. The effectiveness of the knock increases as the nurse knocks on more air. Every two hours, the nurse switches the patient's position. Two nurses will knock on the patient's back while they turn the patient over, paying close attention to positioning the patient's limbs in a usable posture. There are four taps every day, lasting 15 to 20 minutes each.

This section has not been altered in a way that is consistent with the idea of surgery for rapid recuperation. However, practises that run counter to the idea of accelerated rehabilitation surgery should be changed, including preoperative instruction, preoperative medication, preoperative fasting, preoperative bowel preparation, intraoperative fluid control, postoperative analgesia, and early postoperative activities. For patients who have had a single lobectomy, we have created a clinical nursing pathway for faster rehabilitation surgery. All members of the rapid recovery management team of thoracic surgery must be trained in pertinent theoretical knowledge and pass the assessment before implementing the quick recovery surgery concept and clinical nursing route intervention plan for patients with thoracoscopic single lobectomy (Segevall C, 2019).

Twenty quick rehabilitation clinical nursing paths are finished during the pre-experiment time. The time node is created based on the real task requirements. Upon having a thoracoscopic single lobectomy, patients are typically tube-fed for 2 to 3 days depending on their health and the requirement for ECG monitoring. The tube is then removed 4 to 7 days after the procedure. Patients who fully recover and are released from the hospital often stay there for 14 days on average. Following the preliminary experiment, each patient's thoughts and recommendations are compiled, and on the last day of the path table, patients and their families are requested to fill in the blanks with their feelings and rehabilitation requirements. The clinical nursing pathway in quick post-operative rehabilitation is developed based on patient needs and current clinical work (Su SF, 2021).

With the head nurse and key nurses as the primary members, the department has established a nursing team for a clinical nursing pathway in rapid rehabilitation of surgery. This team is in charge of the department's training, direction, and implementation of the clinical nursing pathway application of rapid rehabilitation surgery. Patients who are unable to follow the course effectively are classified as variant cases, and data is routinely collected and cause analysis is performed. Individuals in both categories underwent single lobe thoracoscopic resections. The control group continued with the standard postoperative care for thoracic surgery, while the intervention group utilised the newly created clinical nursing route table for quick rehabilitation of thoracoscopic single lobectomy.

The "Nursing Department-Major Section-Department" three-level quality control system is established at the

same time to perform thorough quality inspection. A clinical nursing pathway for quick rehabilitation following a thoracoscopic single lobectomy is established, together with a nursing quality control checklist. "General requirements for on-site inspection and inspection records; inspection of patients and nurses during the implementation process; inspection of patients for health education; implementation of summary inspection of data" are the aspects from which quality control is carried out. Each responsible nurse reviews and grades each finished path's medical records in accordance with the checklist. At the monthly meeting, the team leaders will also talk about and examine correction (Hines CB, 2019).

CONCLUSION

The quick rehabilitation nursing intervention was used to examine the nursing impact of post-fracture surgery perioperative patients based on the VDMSVM. The VDMSVM algorithm's test error was 12.5%, there were 5 significant features, and there were 3 noise features. The test results confirmed that the VDMSVM algorithm's feature selection was effective. Also, the quick rehabilitation nursing intervention helped fracture patients with their postoperative pain, reduced their LoHS, improved their quality of life after fracture surgery, and felt more satisfied with their nursing degree. This study had the drawback of having a small sample size, which could have somewhat influenced the findings. The sample size must be increased at a later stage to allow for more thorough investigation. Briefly said, the quick rehabilitation nursing intervention, which offers a fresh approach to clinical fracture perioperative nursing, is now in the beginning stages of development.

CONFLICT OF INTEREST

None

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