

# The Exploration of Rapid Rehabilitation Surgical Model in Quality Care of Orthopedic Trauma

Kan Shuangshaung, Liu Yan\*

The First Hospital of Jilin University, Changchun, Jilin, 130021, China

**Keywords:** rapid rehabilitation surgery mode; Orthopaedic trauma; High quality care

**Abstract: Objective:** To explore the clinical efficacy of rapid rehabilitation surgery model in the quality care of customer patients. **Methods:** 110 patients admitted to the department of orthopedics of our hospital from May 2018 to May 2019 were selected as treatment observation objects. The first 55 patients were classified as the control group and the last 55 patients were classified as the rapid recovery group according to the time of visit. Patients in the control group were treated with general treatment methods, while patients in the rapid recovery group were treated with high-quality nursing mode. The experimental observation indexes of this study were the quality of life score of orthopedic patients and the length of hospital stay. **Results:** The quality of life of the patients in the fast-recovery group was higher than that of the control group in 7 single factor scores and total scores, and the difference between the two groups was significant ( $P < 0.05$ ). The length of hospital stay in the fast-recovery group was  $(5.47 \pm 2.28)$  days, far less than that in the control group  $(10.48 \pm 3.95)$  days, and the difference between the two groups was significant ( $P < 0.05$ ). **Conclusion:** Compared with conventional treatment, the orthopedic patients high quality nursing mode in the process of the application in the treatment of orthopaedic patients can not only relief patients in hospital stay time, promote the patients restore their body function, but also can improve the patient's postoperative quality of life, improve the social adaptation ability, thus further promote the use of the method is of clinical value.

## 1. Introduction

With the rapid increase of aging population in China, the number of elderly orthopedic trauma patients disabled by various safety accidents is also increasing. Affected by many factors, even trauma patients who have undergone orthopedic surgery are unable to return to normal physiological functions in a short time, thus increasing the difficulty of nursing care for medical staff to a certain extent. In order to realize the rapid recovery of customer patients, high-quality and effective nursing intervention is needed in the perioperative period, and the rapid recovery surgical model is one of the methods. This model takes “patient-centered” as the treatment concept, and provides scientific and professional clinical nursing services for every orthopedic patient, which reflects the humanistic feelings of doctors while creating unique nursing model characteristics. This study applied the rapid rehabilitation surgery model to the treatment of orthopedic patients and achieved good results. Detailed report is hereby made:

## 2. Materials and Methods

### 2.1 General Materials

110 patients admitted to the department of orthopedics of our hospital from May 2018 to May 2019 were selected as treatment observation objects. Based on the time of visit, the first 55 patients were classified into the control group and the last 55 patients into the rapid recovery group. In the control group, the proportion of male and female patients was 32:23, aged between 26 and 65, with an average age of  $(45.73 \pm 14.89)$  years. In the rapid recovery group, the proportion of male and female patients was 34:21, aged between 24 and 68, and the average age was  $(47.83 \pm 15.96)$  years. There is no statistical difference in the above basic data ( $P < 0.05$ ), and follow-up comparative

experiments can be carried out.

## **2.2 Methods**

Patients in the control group were treated with general treatment methods, that is, health promotion and monitoring of vital signs and other nursing methods to help patients establish health concept and disease prevention awareness. The patients in the rapid recovery group were treated with rapid recovery surgery. The specific content includes the following points.

First, the psychological intervention of patients. Before the orthopaedic surgery, in order to help patients quickly familiar with the operating room environment, eliminate the psychological state of tension, fear to the effects of surgical treatment, need to operation purpose, operation process and considerations related to the operation in advance inform patients, patients can produce certain psychological preparation, reduce the degree of anxiety and depression of patients.

Second, Preoperative intervention. Rapid recovery surgery mode does not require patients to prepare for routine gastrointestinal examination. If the patient has constipation, it is necessary to use laxatives from the day before to two days before the operation to dredge the intestinal tract and promote the defecation response of the patient. The patient's diet should be controlled for six hours before the operation, no solid food should be taken, and no food should be taken for two hours before the operation. This can not only reduce the patient's postoperative vomiting, but also help the anesthetic effect quickly and avoid complications.

Third, postoperative intervention. After orthopedic surgery, many patients will suffer from chills. If the body temperature is low for a long time, the patient will produce a variety of stress manifestations in the process of gradually increasing the body temperature, and then lead to loss of white blood cell function. If the patient's temperature is three degrees below normal, there is a high risk of infection. Therefore, whether in orthopedic surgery or after orthopedic surgery, it is necessary to regulate the temperature of patients, usually with thermal insulation treatment, which can also prevent patients from massive intraoperative bleeding and reduce the possibility of complications to a certain extent. During the operation, the operating room temperature should be at normal room temperature, the liquid temperature of the infusion should be kept at normal body temperature. Then it is necessary to deal with the patient's pain in order to reduce the patient's pain and help the patient get out of bed as soon as possible and avoid the disturbance of stress response. Visual analogue scales can be used to measure the pain level of patients and non-opioid injections can be used for analgesic treatment. Secondly, it is necessary to adjust the patient's body position. To avoid secondary damage to the trauma site, help the patient maintain proper posture. In addition, if the patient is under general anesthesia, a thin or commonly used pillow should be placed on the patient's waist to help relieve discomfort. If the patient has cervical spine surgery, a thin pillow is placed under the neck and sandbags are used to help. The next step is to intervene in the patient's diet. After the surgery, the patient should not eat anything with a pungent odor and spicy food, should with liquid food as the main food intake, and also need to follow the principle of eating cold to alleviate postoperative pain of patients, promote gastrointestinal peristalsis, by means of speed up the blood velocity of patients with gastrointestinal blood stasis bilge performance rapidly disappearing, improve wound repair rate. Finally, it is necessary to intervene in patients' motor function recovery. In patients after surgery, can be in operation on the same day or the next day by turn, limb movement recovery for simple movement skills, a few days after surgery, according to the specific condition of patients can guide patients in bed, in the process should pay attention to the two principles: one, healthcare personnel must have professional qualifications, two, fitness training must step by step. When the patient is discharged from the hospital, it is still necessary to develop a scientific and reasonable nursing plan and healthy method for the patient and urge the patient to actively implement it, and then it is necessary to ask the patient's physical condition through telephone return visit or personal visit.

## **2.3 Observation Indicators**

The experimental observation indexes of this study were the quality of life score of orthopedic patients and the length of hospital stay. The sf-36 scale was used to measure patients' quality of life.

The scale consists of 7 factors with a total of 100 points. The higher the scale score of the patients, the higher the quality of life of the patients.

## 2.4 Statistical Methods

All the data obtained from this experiment were entered into SPSS20.0 system for statistical processing. Quality of life score and length of hospital stay were both measurement data, which could be expressed in the form of average. T test was used for inter-group comparison, and  $P < 0.05$  was taken as the basis for judging the significance of difference.

## 3. Results

### 3.1 Comparative analysis of quality of life scores between the two groups

The quality of life score and total score of the fast-recovery group were higher than those of the control group, and the difference between the two groups was significant ( $P < 0.05$ ). Specific data are shown in table 1.

Table 1 comparative analysis of quality of life scores between the two groups

Groups	n	health status	role physical	emotional functions	social function	physiological function	vigour	body situation	total points
the rapid recovery group	55	73.69 $\pm 4.54$	65.53 $\pm$ 7.37	70.43 $\pm$ 9.22	77.43 $\pm$ 6.38	84.37 $\pm$ 10.06	81.43 $\pm$ 8.32	73.72 $\pm$ 7.25	78.47 $\pm$ 7.48
the control group	55	43.27 $\pm 3.86$	45.27 $\pm$ 6.94	37.26 $\pm$ 8.92	54.48 $\pm$ 7.04	64.80 $\pm$ 11.36	71.46 $\pm$ 9.37	52.48 $\pm$ 7.34	69.36 $\pm$ 7.94
t		38.568	15.692	17.472	17.748	11.475	6.593	15.489	8.535
P		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

### 3.2 Comparative analysis of length of hospital stay between the two groups

The length of hospital stay in the fast-recovery group was ( $5.47 \pm 2.28$ ) days, while that in the control group was ( $10.48 \pm 3.95$ ) days. The difference between the two groups was significant ( $P < 0.05$ ).

## 4. Discussion

In the process of strengthening the nursing intervention of orthopedic patients during perioperative period, reasonable introduction of the concept of rapid rehabilitation can not only provide high-quality nursing services for orthopedic patients, expand the nursing means and strengthen the nursing effect, but also establish a perfect nursing intervention system, so that the nursing intervention tends to develop scientifically. From the perspective of medical staff, the application of rapid rehabilitation surgery model can not only produce different interactive experience, but also predict and confirm the clinical application effect of the treatment model, and further stimulate the passion of medical staff. Traditional nursing intervention usually focuses on the physiological function of patients. Although it can effectively deal with disease-related problems, it is still difficult to achieve good results in terms of postoperative health effects. The application of rapid rehabilitation surgery model not only solves the stress symptoms of patients during and after surgery, but also builds a harmonious doctor-patient relationship through a series of humanized nursing methods. In the nursing process, patients' disease status is easy to change, and the expected effect before and after treatment is also easy to show a gap, so medical staff should not follow the same set of nursing model, only combined with the actual situation of patients, the intervention means timely adjustment, can play a role in controlling the disease, rapid cure.

In this study, 110 orthopedic patients were selected as the experimental subjects and a

comparative analysis was conducted. The experimental results showed that the quality of life score and total score of the patients in the fast-recovery group were higher than those in the control group, and the difference between the two groups was significant ( $P<0.05$ ). The length of hospital stay in the fast-recovery group was  $(5.47\pm2.28)$  days, while that in the control group was  $(10.48\pm3.95)$  days. The difference between the two groups was significant ( $P<0.05$ ). The above situation is mainly due to the fact that medical staff always adhere to the service concept of “patient-centered” when treating patients in the rapid recovery group, and help patients understand their own conditions and related conditions before surgery. In the process of surgery, various factors affecting the operation were considered, such as temperature, light, etc. A scientific health procedure was established for the patients after the operation, and a series of measures were taken to reduce the possibility of postoperative complications. So it can be said that from the social, psychological and physiological aspects of the patient has a comprehensive nature of intervention, rich in very profound connotation.

Above all, compared with the conventional treatment, the orthopedic patients high quality nursing mode in the process of the application in the treatment of orthopaedic patients can not only relief patients in hospital stay time, promote the patient recover his body function, but also can improve the patient's postoperative quality of life, improve the social adaptation ability, thus further promote the use of the method is of clinical value.

## References

- [1] Xie Yuqing. Observation on the effect of rapid rehabilitation surgery model in quality care of orthopedic trauma [J]. *Anhui Medicine*, 2017, 21(4):769-771.
- [2] Du Gaituan, Zhang Shoufang. Effect of rapid rehabilitation surgery model in quality care of orthopedic trauma [J]. *World Latest Medical Information Digest*, 2018, v.18(33):254-255.
- [3] Liu Juan. Observation on the effect of rapid rehabilitation surgery model in quality care of orthopedic trauma [J]. *Health Road*, 2018(3):164-164.
- [4] Wu Xiangyan, Lin Haining, Chen Xiaoyan. Application analysis of the concept of rapid surgical recovery in high-quality care of orthopedic surgery patients [J]. *Chinese and Foreign Medical Research*, 2017, 15(34):121-122.
- [5] Zhao Yujin. Application effect of rapid rehabilitation surgery model in quality care of traumatic orthopedics [J]. *Contemporary Nurses (next 10 days)*, 2018(9):75-76.
- [6] Yang Xinlan, Chen Yangyu, Wu Zhiqiang, et al. Application of rapid rehabilitation surgical nursing model in perioperative period of urological endoscopic surgery [J]. *Nursing Practice and Research*, 2017, 14(20):51-53.
- [7] Chen Yunqiang, Yan Shijiao, Long Kaijun, et al. Exploration of a new model of trauma treatment based on the concept of “rapid rehabilitation surgery” [J]. *Chinese Journal of Emergency Medicine*, 2017, 26(5):488-492.
- [8] Wang Shuping. Application and nursing prospect of rapid rehabilitation surgery in orthopedic perioperative period [J]. *Tianjin Nursing*, 2015, 23(6):557-559.
- [9] Luo Kun, Yuan Ling, Ding Qiaojun. Application of rapid rehabilitation surgical nursing model in the perioperative period of lumbar degenerative diseases [J]. *Anhui Medicine*, 2018, 22(8):1617-1620.
- [10] Li Dongmei. Application of the concept of rapid rehabilitation surgery in high-quality care for patients undergoing orthopedic elective surgery [J]. *Inner Mongolia Journal of Traditional Chinese Medicine*, 2014, 33(15):161-162.