

Original Research Article

## Research on the Clinical Effect of Rehabilitation Nursing for Patients with Heart Failure

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**Abstract:** **Objective:** To analyze the clinical effect of rehabilitation nursing for patients with heart failure. **Methods:** 200 cases were selected from patients with heart failure admitted to the hospital from March to December, 2019. They were divided into two groups by digital list. The control group was given traditional nursing, while the experimental group was given rehabilitation nursing. The nursing quality of the two groups was compared. **Results:** In terms of average hospitalization days and discharge satisfaction, the results of the experimental group were better than those of the control group, and the data difference was statistically significant ( $P < 0.05$ ). **Conclusion:** In the nursing process of patients with heart failure, the application of rehabilitation nursing can effectively enhance the therapeutic index of patients, which is of positive significance to the improvement of patients' satisfaction rate on nursing and is worth popularizing in clinical practice.

**Keywords:** Heart Failure; Rehabilitation Nursing; Clinical Effect

Heart failure, one of the common cardiovascular diseases, is mainly caused by cardiac dysfunction. The pathogenic factors of the disease are complex, including increased heart load, severe arrhythmia, emotional excitement, infection, cardiomyopathy and improper use of drugs. In the early stage of the disease, patients are often accompanied by decreased exercise tolerance, labor-induced respiratory restriction and fatigue. If there is no timely and reasonable intervention given, it will cause a burden on the patient's heart, which is harmful to the reasonable maintenance of his health<sup>[1]</sup>. According to medical staff, the traditional nursing mode often lacks pertinence regarding to the problem, and is not conducive to the effective improvement of nursing quality and the rapid recovery of patients. Based on it, this article analyzes the clinical effect of rehabilitation nursing for patients with heart failure. The research reports are as

follows.

## 1. Materials and methods

### 1.1 General information

200 cases were selected as samples from patients with heart failure admitted to the hospital from March to December, 2019. They were divided into two groups by the digital list. The control group consisted of 70 males and 30 females, ranging from 32 to 72 years old; the experiment group consisted of 50 males and 50 females, ranging from 30 to 69 years old. The data difference of  $p > 0.05$  represents no practical significance in statistics<sup>[2]</sup>.

### 1.2 Methods

(1) The control group. The patients in the control

group were given routine nursing, which included explaining drug use and hospitalization matters, monitoring the vital signs of patients and guiding them to exercise moderately.

(2) The experimental group. The patients in this group were given rehabilitation nursing, that is besides the routine nursing mentioned above, systematic rehabilitation nursing was given. Rehabilitation nursing included aerobic exercise, muscle-strengthening exercise and breathing exercise, making dietary plan and health knowledge education<sup>[1]</sup>. (1) About aerobic exercise and muscle-strengthening exercise, pedal power car and seven steps of cardiac rehabilitation exercise were applied to guide patients to carry out active and passive exercise training and elastic belt training. Seven steps of cardiac rehabilitation exercise: 1) Active and passive exercise training in bed. Instruct patients to lie in bed and tighten their shoulders to get close to their ears as much as possible; put fingers on shoulders and draw circles with elbows, ten times before and after; perform flexion and extension exercises on the elbow joint; lift the left lower limb and bend to be close to the abdomen, and then straighten it back to the bed; repeat this action on the right lower limb; perform dorsiflexion and plantar flexion and then circular movement. In the process, the medical staff assist patients to lie in semireclining posture and help them wash, dress, eat, urinate and bathe in bed. In the initial stage, each action is repeated 5 times, and patients are instructed to take the action exercise when inhaling, and to relax when exhaling<sup>[2]</sup>; 2) Exercise training beside the bed. Patients are instructed to sit on the bed or chair and repeat the above actions. During this stage, bathing including cleaning hands, face, upper body, lower limbs and back is carried out under the assistance with patients sitting on the bed. 3) Exercise training in the chair. Stand up and repeat the actions in the first step as a warm-up exercise; guide patients to march on the spot at the same time, 10–15 times/group; walk 30 meters at a slow speed; after walking, repeat the first step to cool down. During this stage, patients sit in the chair for routine washing, eating, putting on and taking off their coats and trousers, urinating and bathing by themselves. 4) Standing training. Repeat the above training content, and add knee bending practice after marching on the spot; patients are guided to hold handrails with both hands for knee bending training, 10–15 times/group; the distance

of walking training after the above exercise increase from 30 m to 45 m. In this process, the medical staff guide patients to stand and wash and dress independently<sup>[3]</sup>. 5) Stairs workout. Repeat the training content in step 4. The distance of walking training increases from 45 m to 90 m, and the stairs workout is added at the same time with 5 stairs. 6) Intensive exercise. Repeat the training content in step 5 and increase the distance of walking training from 90 m to 150 m; increase the stairs of stairs workout to half a floor. 7) Exercise practice. Repeat the training content of step 6, and the number of stairs is about 1 floor. The medical staff guides patients to wash clothes independently and observe patients' condition<sup>[4]</sup>. Elastic belt training: 1–2 movements are performed for each muscle group, with each movement repeated 5–10 times, and each group repeated 1–2 times<sup>[4]</sup>. (2) Breathing exercise: including abdominal breathing, pursed-lip breathing, and cough, 10–15 min each time, 2–3 times a day. (3) making dietary plan. Medical staff formulate scientific dietary plan for patients in order to ensure efficient intake of nutrients. (4) Health knowledge education. Medical staff publicize and popularize the knowledge about heart failure to help patients reasonably understand relevant diseases and thus improve their compliance with nursing work<sup>[5]</sup>.

### 1.3 Indexes

Take the therapeutic indexes and nursing satisfaction of patients as the indexes for evaluating patients in research work. Among them, the therapeutic indexes mainly include the time for symptom improvement and hospitalization time of patients; nursing satisfaction is analyzed by an evaluation table, composed of three options, namely satisfaction, general satisfaction and dissatisfaction<sup>[6]</sup>.

### 1.4 Statistical methods

In this study, statistical software SPSS22.0 was adopted to calculate the data, taking % as counting data, using  $\chi^2$  test,  $(\bar{x} \pm s)$  as measuring data, and using t test.  $P < 0.05$  represents statistical significance of data difference.

## 2. Results

### 2.1 Comparison of therapeutic indexes of research objects

The symptom improvement and hospitalization time of the experimental group were shorter than those in the

control group, and the data difference was statistically significant ( $P < 0.05$ ). The data are shown in **Table 1**.

**Table 1.** Therapeutic indexes of research objects

Group	n	Time for symptom improvement (d)	Hospitalization time (d)
Experimental group	100	$3.58 \pm 2.01$	$8.52 \pm 0.22$
Control group	100	$6.68 \pm 1.56$	$9.38 \pm 0.21$
t	-	8.615	9.551
P	-	<0.05	<0.05

## 2.2 Comparison of nursing satisfaction of research objects

The nursing satisfaction of the experimental group

was higher than that of the control group, and the data difference has statistical significance ( $P < 0.05$ ). The data are shown in **Table 2**.

**Table 2.** Nursing satisfaction of research objects

Group	n	Satisfaction	General satisfaction	Dissatisfaction	Total satisfaction (%)
Pre-rehabilitation	100	87	11	2	97.98
Rehabilitation	100	89	10	1	98.87
$\chi^2$	-	-	-	-	6.353
P	-	-	-	-	<0.05

## 3. Discussion and conclusion

According to researchers, heart failure, as one of the common diseases in cardiology, greatly affects patients' health. In general, with the advancement of medical technology, drugs for this disease have been greatly developed in recent years, thus effectively improving the therapeutic effects of patients. However, long-term practice has proved that with the increasing trend of population aging, exploration on nursing work should be actively carried out with vigorously researching and developing drugs in order to further promote the living quality of patients with heart failure<sup>[7]</sup>. In terms of nursing, researchers said that it is often difficult for medical staff to provide comprehensive care for patients by applying the traditional nursing mode, and it is not conducive to the recovery of their health. Based on this, the concept of rehabilitation nursing is put forward. Generally, with rehabilitation nursing, the recovery and enhancing of patients' physical quality can be achieved in an orderly manner by guiding them to carry out related

rehabilitation training, which is of great value for maintaining their health<sup>[7]</sup>.

This study proves that compared with the routine nursing mode, rehabilitation nursing has positive significance for improving the therapeutic indexes of patients, and is conducive to promoting their nursing satisfaction.

To sum up, in the nursing process of patients with heart failure, medical staff should reasonably apply the rehabilitation nursing mode to effectively improve the nursing effect.

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