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# The Impact of Narrative Nursing Combined with Exercise Training on Health Beliefs and Cardiac Rehabilitation in Patients with Acute Myocardial Infarction After Intervention Therapy

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**Abstract:** *Objective:* To explore the effect of narrative nursing combined with exercise training on health beliefs and cardiac rehabilitation in patients with acute myocardial infarction (AMI) after interventional treatment. *Methods:* A total of 111 patients with acute myocardial infarction (AMI) who received interventional therapy in Department of Cardiology of Hefei First People's Hospital from January 2022 to September 2023 were selected as the study subjects. They were randomly divided into a control group (n = 55) and a study group (n = 56) using a random table method. Both groups received routine nursing care, while the control group received exercise training on top of it. The study group received narrative nursing care on top of the control group. Both groups were intervened until the patients were discharged. The health beliefs, heart function, psychological status, and quality of life after intervention were compared between two groups using a 6-minute walk test (6MWT). *Results*: After intervention, the scores of the TSK-SV Heart in all dimensions (fear of movement, functional disorders, risk perception, and avoidance of movement) decreased in both groups, and the study group was lower than the control group, with a statistical significant difference ($P < 0.05$). After intervention, the scores of the Self Rating Anxiety Scale (SAS) and Self Rating Depression Scale (SDS) in both groups decreased, and the study group was lower than the control group, with a statistical significant difference ($P < 0.05$). After intervention, both groups showed an increase in left ventricular ejection fraction (LVEF) and left ventricular early diastolic peak flow velocity/left ventricular late diastolic peak flow velocity (E/A), with the study group being higher than the control group. The left ventricular end diastolic diameter (LVEDD) and left atrial volume index (LAVI) decreased, and the study group was lower than the control group, with statistical significant differences ($P < 0.05$). The walking distance of the study group at 6MWT (488.8 ± 31.4) m was greater than that of the control group (425.54 ± 30.7) m, with statistical significant differences ($P < 0.05$). The quality of life measurement scale (CROQ-PTCA-Post) of the study group after coronary intervention treatment had higher scores in all dimensions (physical function, satisfaction, psychosocial function, adverse reactions, symptoms, cognitive function) than the control group, with statistical significant differences ($P < 0.05$). *Conclusion:* Narrative nursing combined with exercise training can enhance the health beliefs of AMI patients towards exercise training after intervention therapy, which is beneficial for cardiac rehabilitation and can improve psychological status and quality of life.

**Keywords:** Acute myocardial infarction; Narrative nursing; Exercise training; Health belief; Cardiac rehabilitation

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# 1. Introduction

Interventional therapy is a common treatment approach for patients with acute myocardial infarction (AMI) within the therapeutic time window. It can promptly and rapidly open the blocked coronary arteries, restore blood supply to ischemic myocardium, improve symptoms such as severe chest pain and dyspnea, and save patients' lives. However, AMI episodes can affect patients' heart function. Therefore, besides interventional therapy, appropriate disease management measures should be provided to patients after treatment to promote cardiac rehabilitation [1, 2]. Exercise training is a crucial aspect of cardiac rehabilitation after interventional therapy for AMI patients. It can enhance patients' heart pumping function and stress resistance, correct myocardial degeneration, and promote the recovery of heart function. However, fear of the acute onset and near-death experience of AMI can lead patients into psychological difficulties after interventional therapy, reducing their health beliefs in exercise training and making them reluctant to cooperate with the exercise strategies developed by medical staff, which is not conducive to cardiac rehabilitation. Previous clinical studies have focused on exploring the types of exercise intervention programs and exercise frequencies after interventional therapy for AMI patients, lacking attention to patients' psychological states during exercise training, which affects the overall application effect of the exercise training program [3, 4]. Narrative nursing is a humanistic nursing model that can reconstruct patients' positive understanding of diseases or nursing measures through five sequential steps: externalization, deconstruction, rewriting, external witness, and therapeutic documentation. It helps improve patients' psychological state and enhances their enthusiasm for nursing measures [5, 6]. Based on this, this study explores the impact of narrative nursing combined with exercise training on health beliefs and cardiac rehabilitation after interventional therapy for patients with acute myocardial infarction.

# 2. Subjects and methods

## 2.1. Subjects

A total of 111 AMI patients who underwent interventional therapy and were admitted to the Cardiology Department of Hefei First People's Hospital from January 2022 to September 2023 were selected as the study subjects. The inclusion criteria are: (1) Meet the diagnostic criteria for AMI [7]; (2) Meet the indications for interventional surgery, have undergone interventional surgery, and have stable vital signs after treatment [8]; (3) Undergoing interventional therapy for the first time; (4) Killip grade I-II at the time of enrollment [9]. However, the exclusion criteria include: (1) Combined neuromuscular or musculoskeletal diseases; (2) Mental illness; (3) Combined malignant tumors; (4) Cognitive, audiovisual, or speech dysfunction. The elimination criteria are when the postoperative hospital stay is < 7 days. This study was reviewed and approved by the Medical Ethics Committee of Hefei First People's Hospital, and all patients or their families have signed informed consent forms. They were divided into a control group (n = 55) and a study group (n = 56) using a random table method. There were no statistically significant differences in age, gender, underlying diseases, smoking history, drinking history, number of diseased vessels, time from onset to admission, and Killip grade between the two groups ($P > 0.05$), as shown in **Table 1**, indicating comparability.

**Table 1.** Comparison of general information between the two groups

| Project | | Control group (n = 55) | Study group (n = 56) | Test statistic value | *P* value |
|---|---|---|---|---|---|
| Age($\bar{x}$±s,years) | | 58.63 ± 10.8 | 58.71 ± 10.8 | 0.039 | 0.969 |
| Gender[n(%)] | Male | 45(81.8) | 43(76.8) | 0.428 | 0.513 |
| | Female | 10(18.2) | 13(23.2) | | |
| Underlying diseases[n(%)] | Hypertension | 13(23.6) | 11(19.6) | 0.261 | 0.609 |
| | Hyperlipidemia | 11(20.0) | 15(26.8) | 0.712 | 0.399 |
| | Diabetes | 8(14.5) | 10(17.9) | 0.224 | 0.636 |
| Smoking history[n(%)] | | 14(25.5) | 16(28.6) | 0.137 | 0.712 |
| Alcohol consumption history[n(%)] | | 26(47.3) | 24(42.9) | 0.219 | 0.640 |
| Number of lesions[n(%)] | | | | 0.072 | 0.788 |
| Single branch | | 35(63.6) | 37(66.1) | | |
| Double/multiple branches | | 20(36.4) | 19(33.9) | | |
| Time of onset to admission($\bar{x}$±s, h) | | 3.32 ± 1.1 | 3.18 ± 1.0 | 0.726 | 0.469 |
| Killip grade[n(%)] | | | | 0.230 | 0.632 |
| Grade I | | 25(45.5) | 28(50.0) | | |
| Grade II | | 30(54.5) | 28(50.0) | | |

## 2.2. Intervention methods

Both groups received routine interventions after interventional therapy, including health education (such as informing patients of post-AMI interventional therapy precautions), medication guidance (advising patients to strictly follow the doctor's instructions on medication timing and dosage), monitoring of vital signs (monitoring patients' heart rate, consciousness, blood pressure, etc.), pain management (using distractions like listening to music or looking out the window), and dietary care (low-salt, low-fat diet, suitable temperature, regular eating).

### 2.2.1. Control group

The control group received exercise training in addition to the routine interventions. The following exercise training was conducted after the patients' vital signs were stable:

(1) Postoperative Day 1: Encourage patients to actively move their limbs, such as performing ankle pump exercises, lower limb flexion and extension, finger joint flexion and extension, upper limb elevation, etc., 3 times/day, 10 minutes/session. Encourage patients to attempt active turning, closely monitoring vital signs during the process and stopping immediately if abnormal, 3 times/day. Encourage patients to try sitting up in bed independently and, if no dizziness or other indications to stop the exercise are present, continue to encourage sitting on the edge of the bed with feet dangling, 3 times/day, 10 minutes/session.

(2) Postoperative Day 2: Continue with the above exercises and introduce seated Baduanjin on the bed, including exercises such as calming sitting, left and right winching, hugging Kunlun, slightly swinging the Tianzhu, and tapping the Yu pillow with fingers, 30 minutes/session, once in the morning and once in the evening. With heart rate monitoring and assistance from nursing staff, patients attempt to stand up from bed and, if no dizziness or other indications to stop, can be assisted to walk slowly while

holding the bed, 10 minutes/session, 2 times/day.

(3) Postoperative Day 3: On the premise of adhering to the above exercises, assist patients to walk slowly in the ward or corridor for 30–60m, 2 times/day, terminating the exercise immediately if the patient experiences any discomfort.

(4) Postoperative Day 4: Continue with limb movements, seated Baduanjin on the bed, etc., and assist patients to walk slowly or at a moderate speed in the corridor for 100–150m, 2 times/day, terminating the exercise immediately if the patient experiences any discomfort.

(5) Postoperative Day 5: Maintain the above exercises and assist patients to walk at a moderate speed in the corridor for 150–300m, 2 times/day, terminating the exercise immediately if the patient experiences any discomfort.

(6) Postoperative Day 6: Persist with limb movements, seated Baduanjin on the bed, etc., and gradually assist patients to walk quickly in the corridor for 300–500m, 2 times/day, terminating the exercise immediately if the patient experiences any discomfort.

(7) Postoperative Day 7 until discharge: Encourage patients to walk independently at a moderate or fast speed in the corridor for 500–600m, accompanied by medical staff or family members, 2 times/day, terminating the exercise immediately if the patient experiences any discomfort.

### 2.2.2. Study group

The study group received narrative nursing in addition to the interventions provided to the control group:

(1) Externalization: Initiate communication with AMI patients in a gentle and friendly tone, guiding them to fully narrate an impressive event encountered during exercise training or routine interventions. The intervenor should maintain attention and focus, avoiding interruptions or interjections, and appropriately express understanding and empathy through nodding, smiling, or hugging. Understand the psychological impact of the event on the patient by observing their tone, emotional fluctuations, or facial expressions. After the patient finishes sharing, approach the issue with empathetic thinking to help the patient further externalize and release the psychological pressure caused by the event.

(2) Deconstruction and rewriting: Engage in deeper communication with the patient, guiding them to recall positive and meaningful similar experiences from their past, such as asking, “You mentioned feeling inadequate during exercise, have you experienced something similar before and how did you overcome it?”. During the patient’s narration, the intervenor guides them to discover their own strengths in problem-solving through smiles, thumbs-up, or eye contact, correcting any misconceptions about themselves. Additionally, the intervenor can use examples of similar experiences from other AMI patients in clinical practice to encourage positive perspective and a proactive attitude towards future similar events.

(3) External Witness: Select the patient’s family members or fellow patients in the same ward as external witnesses to narrate the impressive parts of the patient’s story and express their positive views.

(4) Therapeutic Documentation: Communicate with the patient’s family members beforehand to understand their hobbies and interests, and prepare personalized small gifts as incentives based on these preferences. After each conversation with the patient, present the small gifts as rewards. Narrative nursing is also conducted after the patient’s vital signs are stable, continuously once a day until discharge.

## 2.3. Observation indicators

### 2.3.1. Health beliefs

Evaluated using the Chinese version of the Tampa Scale for Kinesiophobia Heart (TSK-SV Heart) before intervention and at discharge [10]. The scale includes four dimensions: fear of movement (4 items), functional disorder (4 items), perception of danger (4 items), and avoidance of movement (5 items). Each item is scored from 1–4, with a total score range of 17–68. A higher score indicates stronger fear of exercise training and lower health beliefs towards it.

### 2.3.2. Psychological state

Assessed using the Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS) before intervention and at discharge [11]. Both scales have 20 items, with each item scored from 1–4 and a maximum total score of 80. Higher scores suggest more severe anxiety or depression.

### 2.3.3. Cardiac function

Measured using echocardiography (Mindray Resona7) before intervention and at discharge. Parameters include left ventricular ejection fraction (LVEF), left ventricular end diastolic diameter (LVEDD), left atrial volume index (LAVI), and the ratio of early diastolic peak flow velocity to late diastolic peak flow velocity (E/A).

### 2.3.4. 6-Minute walk test (6MWT)

Evaluated at discharge by instructing patients to walk independently in the corridor outside the hospital room and recording the maximum distance walked within 6 minutes. Patients were informed to slow down or rest against the wall if they felt breathless or exhausted during the test.

### 2.3.5. Quality of life

Evaluated using the Coronary Revascularization Outcome Questionnaire-Percutaneous Transluminal Coronary Angioplasty-post (CROQ-PTCA-Post) before intervention and at discharge [12]. The scale includes six dimensions: physical function (8 items, total 24 points), satisfaction (6 items, total 30 points), psychosocial function (14 items, total 70 points), adverse effects (6 items, total 30 points), symptoms (7 items, total 35 points), and cognitive function (3 items, total 18 points). Higher scores indicate a better quality of life.

## 2.4. Statistical methods

Statistical software SPSS 27.0 was used to process the data. All data were subjected to the Kolmogorov-Smirnov normality test. Data conforming to a normal distribution were expressed as "mean ± standard deviation" and tested for homogeneity of variance using Bartlett's test. Independent samples t-test was used for between-group comparisons, and paired samples t-test was used for within-group comparisons. When variance was not homogeneous, the t-test was applied. Count data were expressed as percentages and frequencies and analyzed using the chi-square test. $P < 0.05$ was considered statistically significant.

# 3. Results

## 3.1. Health beliefs

There were no statistically significant differences in TSK-SV Heart scores for various dimensions (fear of movement, functional disorder, perception of danger, avoidance of movement) between the two groups before intervention ($P > 0.05$). After intervention, scores for all TSK-SV Heart dimensions decreased in both groups, with the study group showing lower scores than the control group. The differences were statistically significant ($P < 0.05$). See **Table 2** for details.

**Table 2.** Comparison of health beliefs before and after intervention between the two groups ($\overline{x}$ ±s/score)

| Group | Movement fear | | Dysfunction | |
|---|---|---|---|---|
| | Pre-intervention | Post-intervention | Pre-intervention | Post-intervention |
| Control group(n = 55) | 11.4 ± 1.9 | 8.8 ± 2.1[a] | 10.8 ± 2.0 | 7.8 ± 1.7[a] |
| Study group(n = 56) | 11.4 ± 1.9 | 7.4 ± 2.1[a] | 10.9 ± 1.9 | 6.4 ± 1.6[a] |
| *t* value | 0.084 | 3.420 | 0.135 | 4.635 |
| *P* value | 0.934 | 0.002 | 0.893 | < 0.001 |
| **Group** | **Hazard perception** | | **Motor avoidance** | |
| | **Pre-intervention** | **Post-intervention** | **Pre-intervention** | **Post-intervention** |
| Control group(n = 55) | 10.7 ± 2.0 | 7.7 ± 2.1[a] | 15.1 ± 4.5 | 10.5 ± 4.3[a] |
| Study group(n = 56) | 10.7 ± 1.9 | 7.3 ± 1.9[a] | 15.0 ± 4.6 | 8.5 ± 3.9[a] |
| *t* value | 0.137 | 1.128 | 0.058 | 2.570 |
| *P* value | 0.891 | 0.262 | 0.954 | 0.012 |

Note: Compared with before intervention in the same group, [a]$P < 0.05$.

## 3.2. Psychological state

Before intervention, there was no statistically significant difference in SAS and SDS scores between the two groups ($P > 0.05$). After intervention, both SAS and SDS scores decreased in both groups, with the study group showing lower scores than the control group. The differences were statistically significant ($P < 0.05$), as shown in **Table 3**.

**Table 3.** Comparison of psychological state before and after intervention between the two groups ($\overline{x}$ ±s/score)

| Group | SAS score | | SDS score | |
|---|---|---|---|---|
| | Pre-intervention | Post-intervention | Pre-intervention | Post-intervention |
| Control group(n = 55) | 54.6 ± 3.4 | 45.2 ± 4.5[a] | 55.8 ± 4.6 | 41.4 ± 4.8[a] |
| Study group(n = 56) | 54.7 ± 3.3 | 41.6 ± 4.3[a] | 55.6 ± 4.5 | 36.8 ± 5.0[a] |
| *t* value | 0.110 | 4.331 | 0.150 | 4.900 |
| *P* value | 0.913 | < 0.001 | 0.881 | < 0.001 |

Note: Compared with before intervention in the same group, [a]$P < 0.05$.

## 3.3. Cardiac function

Before intervention, there were no statistically significant differences in LVEF, LVEDD, LAVI, and E/A between the two groups ($P > 0.05$). However, after intervention, both groups showed an increase in LVEF and E/A, with the study group having higher values than the control group. Additionally, both groups experienced a decrease in LVEDD and LAVI, and the study group had lower values compared to the control group. These differences were statistically significant ($P < 0.05$). The detailed comparison is presented in **Table 4**.

**Table 4.** Comparison of cardiac function indicators before and after intervention between two groups ($\overline{x} \pm s$)

| Group | LVEF(%) | | LVEDD(mm) | |
|---|---|---|---|---|
| | Pre-intervention | Post-intervention | Pre-intervention | Post-intervention |
| Control group(n = 55) | 45.1 ± 3.6 | 53.7 ± 3.4[a] | 58.9 ± 3.1 | 50.1 ± 3.4[a] |
| Study group(n = 56) | 45.9 ± 3.6 | 55.5 ± 3.5[a] | 59.0 ± 3.2 | 48.7 ± 3.3[a] |
| *t* value | 1.245 | 2.894 | 0.249 | 2.274 |
| *P* value | 0.216 | 0.005 | 0.804 | 0.025 |
| **Group** | **LAVI(mL/m$^2$)** | | **E/A** | |
| | **Pre-intervention** | **Post-intervention** | **Pre-intervention** | **Post-intervention** |
| Control group(n = 55) | 31.5±3.3 | 21.1±3.7[a] | 0.8±0.1 | 1.0±0.2[a] |
| Study group(n=56) | 31.4 ± 3.2 | 18.3 ± 3.8[a] | 0.8 ± 0.1 | 1.1 ± 0.2[a] |
| *t* value | 0.129 | 3.938 | 0.915 | 2.895 |
| *P* value | 0.898 | ＜ 0.001 | 0.362 | 0.005 |

Note: Compared with before intervention in the same group, [a]P < 0.05.

## 3.4. 6MWT

The 6MWT walking distance in the study group (488.8 ± 31.4m) was greater than that in the control group (425.54 ± 30.7m), and the difference was statistically significant ($P < 0.05$).

## 3.5. Quality of life

Before intervention, there were no statistically significant differences in the scores of various dimensions of CROQ-PTCA-Post (physical function, satisfaction, psychosocial function, adverse effects, symptoms, cognitive function) between the two groups ($P > 0.05$). However, after intervention, the scores of all dimensions of CROQ-PTCA-Post in the study group were higher than those in the control group, and the differences were statistically significant ($P < 0.05$). See **Table 5** for a comparison of quality of life after intervention between the two groups.

**Table 5.** Comparison of quality of life after intervention between the two groups ($\overline{x}$ ±s/score)

| Group | Physical function | | Satisfaction | | Psychosocial function | |
|---|---|---|---|---|---|---|
| | Pre -intervention | Post -intervention | Pre -intervention | Post -intervention | Pre -intervention | Post -intervention |
| Control group(n = 55) | 13.1 ± 1.8 | 18.4 ± 2.1[a] | 14.4 ± 2.3 | 21.3 ± 3.2[a] | 34.8 ± 5.5 | 54.5 ± 5.5[a] |
| Study group(n = 56) | 13.0 ± 1.9 | 19.6 ± 1.8[a] | 14.5 ± 2.5 | 24.1 ± 3.2[a] | 36.4 ± 6.1 | 58.7 ± 4.6[a] |
| *t* value | 0.285 | 3.230 | 0.219 | 4.750 | 1.451 | 4.337 |
| *P* value | 0.777 | 0.002 | 0.827 | < 0.001 | 0.150 | < 0.001 |
| Group | Adverse effects | | Symptoms | | Cognitive function | |
| | Pre -intervention | Post -intervention | Pre -intervention | Post -intervention | Pre -intervention | Post -intervention |
| Control group(n = 55) | 15.2 ± 1.6 | 23.3 ± 1.5[a] | 23.5 ± 2.6 | 28.3 ± 3.2[a] | 10.4 ± 2.3 | 13.5 ± 1.1[a] |
| Study group(n = 56) | 15.4 ± 1.8 | 24.4 ± 1.7[a] | 23.6 ± 2.7 | 30.3 ± 1.1[a] | 10.5 ± 2.4 | 14.7 ± 0.7[a] |
| *t* value | 0.618 | 3.785 | 0.199 | 4.409 | 0.224 | 6.501 |
| *P* value | 0.538 | < 0.001 | 0.843 | < 0.001 | 0.823 | < 0.001 |

Note: Compared with the pre-intervention group, [a]$P < 0.05$.

# 4. Discussion

## 4.1. The impact of narrative nursing combined with exercise training on health beliefs of AMI patients after interventional therapy

Health belief is an intrinsic motivation that can determine patients' subjective perceptions of their illness or nursing interventions, thereby influencing their behavioral decisions and enthusiasm for practicing healthy behaviors. It is a crucial factor affecting the quality of nursing care and even more critical in determining whether patients can adhere to healthy behaviors when they are no longer under medical supervision. The fear of exercise training can mediate psychological imbalances and obsessive behaviors in patients, which is a significant reason for the decrease in health beliefs among AMI patients after interventional therapy [13].

However, according to the results of this study, the fear of exercise in the study group was significantly lower than that in the control group after intervention, suggesting that narrative nursing combined with exercise training can reduce the fear of exercise among AMI patients after interventional therapy, which is beneficial for the formation of health beliefs. The reason for this may be that during the externalization step of narrative nursing, guiding patients to actively narrate negative events during exercise training not only helps patients vent their negative feelings towards exercise training accumulated deep inside, reducing their fear of exercise behavior but also assists healthcare professionals in better understanding the reasons for patients' fear of exercise training.

Based on this understanding, the details of the exercise training program can be optimized to enhance patients' health beliefs in exercise training. In this study, exercise training was tailored to the physical recovery and activity level of AMI patients at different stages. Patients were given tolerable exercise programs at various recovery stages, such as 1 and 2 days after interventional therapy. This approach not only effectively avoids negative events during exercise training, reducing patients' fear of the exercise program but also helps patients gradually acquire beneficial cognition through progressive exercise training, which is conducive to the

formation of healthy exercise beliefs. Therefore, combining narrative nursing with exercise training in AMI patients can reduce their fear of exercise after interventional therapy and facilitate the formation of healthy beliefs.

## 4.2. The impact of narrative nursing combined with exercise training on cardiac rehabilitation of AMI patients after interventional therapy

Cardiac rehabilitation is a key aspect of assessing the prognosis of AMI patients after interventional therapy. Good cardiac rehabilitation not only reduces the risk of disease recurrence but also helps patients better return to their daily lives [14, 15]. Cardiac function parameters such as LVEF and LVEDD provide a direct reflection of the heart's working status in AMI patients [16, 17]. Meanwhile, the 6-minute walk test (6MWT) assesses the overall cardiopulmonary function and exercise tolerance of AMI patients [18, 19]. Both are important indicators for evaluating cardiac rehabilitation in AMI patients. The results of this study show that after the intervention, the study group had significant improvements in cardiac function indicators such as LVEF, LVEDD, and 6MWT compared to the control group, suggesting that narrative nursing combined with exercise training is more beneficial for cardiac rehabilitation of AMI patients after interventional therapy.

The reason for this improvement may be attributed to the exercise training program designed based on the recovery characteristics and rehabilitation needs of AMI patients at different stages after interventional therapy. For example, during the first 1–2 days after surgery, to avoid increasing cardiac load and promote better recovery of damaged myocardium, patients were given low-intensity exercises such as finger joint flexion and extension, upper limb elevation, bed turning or sitting on the edge of the bed, and seated eight-section brocade.

After 3–7 days post-surgery, when most of the necrotic myocardium has recovered and patients' exercise capacity has improved through the previous 2 days of training, a tolerable enhanced exercise program was provided, focusing on exercise speed (e.g., slow, medium, fast) and distance (e.g., 100–150m, 150–300m, 300–500m). This approach can increase AMI patients' cardiac output, improve myocardial blood supply, enhance myocardial endurance and elasticity, boost cardiac reserve function, and promote better cardiac rehabilitation without adding extra exercise load. Simultaneously, narrative nursing can enhance AMI patients' health beliefs regarding exercise training after interventional therapy, increasing their subjective initiative to comply with exercise training measures and improving the effectiveness of the aforementioned exercise training.

Furthermore, the narrative nursing process involves setting up a positive reward mechanism to express recognition and affirmation for patients' adherence to exercise training. This process can stimulate patients' intrinsic behavioral motivation, further enhancing their enthusiasm for complying with exercise training measures and improving exercise training outcomes. Therefore, combining narrative nursing with exercise training in AMI patients after interventional therapy can better facilitate their cardiac rehabilitation.

## 4.3. The impact of narrative nursing combined with exercise training on the psychological state of AMI patients after interventional therapy

Research indicates that negative psychological states such as anxiety or depression can excite the sympathetic nervous system of AMI patients. If not intervened in a timely manner, this can lead to abnormal vasoconstriction in the long term, which in turn affects the blood supply to the heart, hindering cardiac rehabilitation [20, 21]. Additionally, AMI patients with anxiety or depression often have a vague cognition of health-promoting and damaging factors, which is not conducive to the formation of healthy beliefs [21].

Therefore, attention should be paid to the negative psychological states of anxiety or depression in AMI patients after interventional therapy. The results of this study show that after intervention, the anxiety or depression scores of the study group were significantly lower than those of the control group, suggesting that narrative nursing combined with exercise training can effectively improve the psychological state of AMI patients after interventional therapy. The reason for this improvement may be attributed to narrative nursing's approach in the deconstruction and rewriting process.

By guiding patients to recall positive and meaningful similar experiences and enumerating similar events from previous clinical cases, narrative nursing helps patients view the negative emotions encountered during exercise training from a positive perspective. This enables them to cope with or digest negative emotions with a positive attitude during subsequent training, thereby improving their psychological state. Research also shows that exercise training can help patients shift their attention away from negative states, increase confidence and enthusiasm for recovery, and contribute to improved psychological well-being [22]. Therefore, AMI patients who receive narrative nursing combined with exercise training intervention show more significant improvement in their psychological state after interventional therapy.

### 4.4. The impact of narrative nursing combined with exercise training on the quality of life of AMI patients after interventional therapy

The ultimate goal of nursing intervention after interventional therapy for AMI patients is to help them return to daily life. Quality of life is a comprehensive evaluation of various aspects such as physical health, mental health, and disease recovery, and it is crucial in determining whether patients can smoothly transition back to their daily lives [23]. The findings of this study reveal that after the intervention, the study group showed more significant improvements in quality of life scores, including physical function, psychosocial function, and symptoms, compared to the control group. This suggests that narrative nursing combined with exercise training can enhance the quality of life of AMI patients after interventional therapy, thereby facilitating their better return to daily life. The reason for this lies in the fact that narrative nursing combined with exercise training, through moderate exercise rehabilitation and psychological adjustment measures, can assist patients in better restoring heart function and rebuilding a healthy and active lifestyle, ultimately improving their quality of life and promoting a smoother transition back to daily activities.

## 5. Conclusion

Applying narrative nursing combined with exercise training after interventional therapy for AMI patients can enhance patients' health beliefs regarding exercise training, promote better cardiac rehabilitation, improve psychological states, and elevate the quality of life. This approach has practical value and deserves widespread application.

## Disclosure statement

The author declares no conflict of interest.

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