ARTICLE

Research on the Interventional Effects of Stress Psychological Nursing Method on Patients with Acute Coronary Syndrome

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ABSTRACT

Objective: To investigate the interventional effects of stress psychological nursing method on patients with acute coronary syndrome (ACS). **Methods:** 100 patients with ACS who were rescued in the emergency department and department of cardiology of our hospital between January 2017 and December 2017 were enrolled. According to the random number method, the patients were divided into control group and observation group. There were 50 patients in each group. The interventions were given as routine nursing and stress psychological nursing, and the results of the two interventions were compared. **Results:** Before the intervention, there was no difference in the general clinical data between the control group and the observation group, which was not statistically significant; after the intervention for anxiety and depression, average hospitalization time, and off-bed time, the difference in data between the control group and the observation group on anxiety and depression was statistically significant. Moreover, the values of all the observation groups were lower than those of the control group. **Conclusion:** Applying stress psychological nursing method to the nursing of the patients with ACS can significantly improve their anxiety and depression, which significantly improves their quality of life, and enables the patients to better grasp the relevant health knowledge, at the same time, it obtains good intervention effects, which is worth promoting in a wider clinical scope.

1. Introduction

Acute coronary syndrome (ACS) is a group of clinical syndromes of coronary atherosclerotic plaque rupture or erosion, secondary to complete or incomplete occlusive thrombosis, including unstable angina (UA), acute myocardial infarction (AMI), and sudden death. If the patient's coronary arteries have developed atherosclerosis and merged with the luminal stenosis with multiple vessels, then the blood supply from vessels to the corresponding blood supply parts will be reduced or even interrupted, which can cause large-scale death of cardiomyocytes, namely acute myocardial infarction (AMI).[1] It is found through the survey that,[2] there are many

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factors that can affect the prognosis of AMI, including the patients' own factors, external environmental factors, etc., but one factor should not be ignored, that is, the patients' psychology. According to the survey,[3] patients with ACS often experience discomfort due to severe precordial pain and wheezing when clinical symptoms occur, after entering the hospital, there are complex psychological changes, the main of which are anxiety and depression. The kind of this negative emotion can have a direct impact on the patient's treatment and prognosis. 100 patients with ACS who were rescued in our hospital between January 2017 and December 2017 were enrolled in this research. The research on the intervention effects of stress psychological nursing method in the treatment of patients with ACS was conducted. The report is as follows:

2. Research Objects and Methods

2.1 Research Objects

A Retrospective analysis of 100 patients with ACS who were rescued in our hospital between January 2017 and December 2017 was performed. The age of the patients ranged from 39 to 87 years old, with an average age of 63 ± 24 years old. The research has been approved and passed by the Medical Ethics Committee of our hospital, and all patients and their families have signed informed consent forms.

2.2 Case Inclusion Criteria

(1) Patients who meet the diagnostic criteria of ACS;[4]
(2) Patients who were intervened by the stress psychological nursing method for the first time in our hospital.

2.3 Case Exclusion Criteria

(1) Patients with cognitive dysfunction;
(2) Patients with mental illness or other diseases that may affect the research results;
(3) Patients who were unwilling to sign informed consent forms, as the patients and their families didn't agree to the research.

2.4 Research Methods of Patients

2.4.1 Grouping Method and Results of Patients

According to the random number method, 100 patients were divided into a control group and an observation group, and each group had 50 patients.

2.4.2 Treatment Method of Patients

On the basis of the traditional routine nursing model,

the observation group patients added the stress psychological nursing intervention method. The main method is as follows:

(1) The primary emphasis of this method is the nursing and intervention of the patient's psychology, which requires the nursing staff to concern and care for the patients not only from the condition of the patients, but also from their psychology. The nursing staff is aimed at the "person" who is sick, not a "sickness". It is necessary to communicate with the family members of the patient to maintain the observation of the patient's emotional changes and the mutual understanding of each other. At the same time, the patient's questions about the disease should be answered with patience and meticulousness. Due to professional circumstances, patients cannot understand certain complex medical terms and medical knowledge. Therefore, nursing staff are required to teach and communicate with patients and their families in a language style that the patient can understand, which not only gives patients access to knowledge, but also increases patient trust in medical staff. During the work process, the nursing staff should pay attention to the guidance and appeasement of the negative emotions of the patients, when encountering the depression and irritability and other negative emotions of the patients, the nursing staff should not shut down or even ignore. They must communicate patiently with the patients, conduct joint research on the causes of such problems and help patients get out of the shadow negative of emotions, and help patients build self-confidence to overcome the disease.

(2) The patient is required to be in a comfortable environment. Keep the whole patient's ward clean and tidy, and keep the temperature between 22 °C and 24 °C, and the humidity at 50%-60%. The environmental indicators are measured and recorded daily, if the deviation is too large, manual adjustments are made in time. The ward is ventilated once a day in the morning, and it is strictly forbidden to place flowers and other items that are allergic in the ward. Negotiate with the patient's family and the competent physician to scientifically manage the patient's diet, and the dietary requirements are not only low sodium, easy to digest and absorb, but also require adequate nutrient supply; the supply of drinking water should also be carried out in accordance with the scientific quantity, and the cleaning of the patient's mouth should also be kept in mind; keep the patient's stool smooth, and avoid forceful defecation. As a whole, the ward is required to be quiet, and the voice of speech and action is kept as low as possible. The nursing staff also needs to be cautious when performing nursing operations on the patient to avoid the high decibel sound, so as not to irritate the patient and

cause discomforts.

(3) Conduct a comprehensive health education for patients. From the patient's admission to the hospital, the patient and family members should be fully informed about the knowledge related to ACS. The ultimate goal is not only for patients and their families to have a comprehensive understanding of the disease, but also for patients to build trust in the medical staff. The health education process needs to go through the entire process of hospitalization, and it is required to provide different knowledge at different phases of the disease based on the different needs of the patient and his or her family.

(4) The final guidance is given before the patient is discharged from the hospital. Before the ACS patient is discharged from the hospital, the patient should be evaluated for exercise endurance, and according to the results of the examination, each patient's exercise plan during the rehabilitation process after discharge should be made. The general principle is that any physical activity must be done in a way that absolutely avoids symptoms such as angina after exercise. The patient is monitored for BMI and is attempting to control the BMI to a level not exceeding 25 kg/m^2, but it is not recommended to use drugs for control, preferably with a green method of appropriate exercise and diet. After the patient is discharged from the hospital, if there is emotional fluctuation, he or she can communicate with the medical staff at any time, and can use the modern means, such as telephone, WeChat, etc. to keep liaison and communication with the other patients, which is also an effective measure to eliminate negative emotions in patients.

2.4.3 Observation Index

First of all, the general conditions, complications, and courses of disease of all enrolled patients were recorded. Before the intervention and after the intervention and before discharge, the patients were scored using the Self-rating Depression Scale (SDS), the Self-rating Anxiety Scale (SAS) and the physiological function and mental health modules in the SF-36 Quality of Life Scale (QOLS). The higher the scores of the SDS and SAS, the more severe the depression or anxiety of the patients are; and the higher the scores of the physiological function and mental health, the better the situations are. The health knowledge mastery questionnaires prepared by our hospital were used; the patients were scored before and after the intervention. The questionnaire describes the health knowledge assessment of patients from three dimensions, namely, health knowledge, good living habits and self-care awareness, which judges whether the patient is aware of health knowledge in the form of a count variable, and

maintains good habits and self-care awareness. The average hospitalization time and off-bed time of all patients were recorded and compared.

2.5 Statistical Analysis

Descriptive analysis of the data was performed, the results of measurement data were expressed by (x ± s), and statistical processing was performed using SPSS19.0 software. The count data comparison was inspected by x^2-test, and the measurement data comparison was inspected by *t*-test, *P*<0.05, the difference was statistically significant.

3. Results

3.1 The Comparative Results of General Clinical Data between Control Group and Observation Group

In the comparison of the general clinical data of the control group and the observation group, there was no difference in the gender, age, hypertension, diabetes, and disease duration of the two groups, and there was no statistical difference (*P*>0.05).

3.2 The Comparative Results of the SAS and SDS between Control Group and Observation Group before and after the Intervention

Before the intervention, the SAS scores of the control group and the observation group were respectively 55.64±5.34 and 54.87±4.88, which were not statistically significant (*P*>0.05); after the intervention, the SAS scores of the control group and the observation group were respectively 47.12±4.15 and 40.12±3.58, and the differences were statistically significant (*P*<0.05). Before the intervention, the scores of SDS in the control group and the observation group were respectively 56.37±3.55 and 57.38±4.52, which were not statistically significant (*P*>0.05); after the intervention, the SDS scores of the control group and the observation group were respectively 45.27±4.29 and 38.16±3.96, and the difference was statistically significant (*P*<0.05). Moreover, in the two items of SAS and SDS, the values after the intervention were lower than before the intervention. After the intervention, the difference between the control group and the observation group was also statistically significant (*P*<0.05).

3.3 The Comparative Results of the QOLS between Control Group and Observation Group before and after the Intervention

Before the intervention, the scores of physiological function module in the control group and the observation

group were respectively 60.12±7.24 and 59.87±6.48, which were not statistically significant (*P*>0.05); after the intervention, the scores of physiological function module in the control group and the observation group were respectively 71.54±5.67 and 82.46±8.5, and the difference was statistically significant (*P*<0.05). Before the intervention, the scores of mental health module in the control group and the observation group were respectively 56.66±6.85 and 56.84±7.48, which were not statistically significant (*P*>0.05); after the intervention, the scores of mental health module in the control group and the observation group were respectively 65.49±5.41 and 78.81±6.88. Moreover, in the two items of physiological function and mental health modules, the values after the intervention were higher than before the intervention. After the intervention, the difference between the control group and the observation group was statistically significant (*P*<0.05).

3.4 The Comparative Results of Average Hospitalization Time and Off-bed Time between Control Group and Observation Group

There were significant differences in the data between the control group and the observation group on the average hospitalization time and the Off-bed time (*t*=11.631, 110.199, *P*<0.05), and the values of the observation group were lower than those of the control group. The details are shown in Table 1:

Table 1. The Comparative Results of Average Hospitalization Time and Off-bed Time between Control Group and Observation Group

Items	Control Group (*n*=50)	Observation Group (*n*=50)	*t*-values	*P*-values
Average Hospitalization Time	15.37±2.58	9.38±2.57	11.631	<0.001
Off-bed Time	8.77±1.89	5.17±1.63	10.199	<0.001

4. Discussion

With the advancement of society and the improvement of living standards, there are more and more patients with ACS and their ages have been getting younger and younger in recent years. The classical symptoms of ACS at the time of onset are compression pain in the sternum, increased nausea and reactive sweating, which poses a serious threat to health,[5] and its unfavorable prognosis also makes the disease reduce the quality of life of patients with disease. Therefore, in the medical field, not only the emergency treatment of this disease is regarded as the focus, but also how to effectively care for the disease patients, and to maintain the patients' treatment effects have

become a focus issue.[6]

Stress psychological nursing intervention is a brand-new concept put forward in recent years,[7] and introducing stress psychological nursing intervention into patients' ACS nursing work is another innovation. After a certain theoretical research and practical operation,[8] this method has achieved certain success in nursing, and has gradually become a guideline in the nursing work of this disease. In patients with ACS, their negative emotions tend to be strong. From the time of onset to the recovery process, negative emotions dominated by anxiety and depression generally plague the patient, which ultimately leads to poor treatment outcomes for the patient due to psychological or mental burdens. The stress psychological nursing intervention scientifically plans the patient's rest time, highlights the patient's mental and psychological stress, and requires the nursing staff to treat the patient with empathy. This method has higher requirements for the quality of nursing staff. On the one hand, it requires rich clinical knowledge and practical experience. On the other hand, it requires high emotional intelligence including responsibility and communication skills.

5. Conclusion

From the results of this research, the intervention of stress psychological nursing method made the observation group significantly better than the control group in the indicators of each item. Not only the patients' anxiety and depression were well treated, but also the treatment effects were also significantly improved, which also saved a lot of money for the country and was well received by the patients.

In summary, Applying stress psychological nursing method to the nursing of the patients with ACS can significantly improve their anxiety and depression, which significantly improves their quality of life, shortens the length of hospitalization time, and deserves to be promoted in a wider clinical scope.

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