EFFECT OF FAMILY-CENTERED HEALTH EDUCATION ON INDIVIDUALS DIAGNOSED WITH CORONARY HEART DISEASE

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Abstract: Objective To explore the impact of family-centered health education model on family functions and quality of life of patients with coronary heart disease in the community. Method Selection June 2017 - In April 2018, 80 patients with coronary heart disease in a community health service center in Tianjin were selected as the research subjects. They were divided into a control group and an observation group according to the random number table method, including 43 cases in the control group and 37 cases in the observation group. The control group was given a routine coronary heart disease health education model, while the observation group was also given a family-centered health education model for patients and their caregivers. The intervention time for both groups was 3 months. The family function and quality of life scores of the two groups of patients were compared. Results Before the intervention, the quality of family life was compared between the two groups, and the difference was not statistically significant (P＞0.05); after the intervention, all dimensions and total scores of family functions of the patients in the observation group were lower than those in the control group, and the difference was statistically significant (P＜0.05); the quality of life score of the observation group was (110.25±32.04) points, and the score of the control group was (92.88±23.39) points, the difference was statistically significant (t=12.32, P<0.01). Conclusion The family-centered health education model can effectively improve the quality of life of families of patients with coronary heart disease and is worthy of reference in community work.
Keywords: Family; Coronary heart disease; Family function; Quality of life

1 OBJECTS AND METHODS

Coronary atherosclerotic heart disease (coronary heart disease) is a disease with high incidence and high mortality, and it is also a common disease. Its occurrence, development and recovery process are all affected by psychological factors [1]. Coronary heart disease is a chronic disease with high prevalence and high cost. Due to the disease, patients' daily activities are restricted and the family's financial burden is increased. It also affects the quality of life of other family members of the patient. A sudden coronary heart disease has a physical and mental impact on patients and their families. The harm cannot be ignored. Health education is the top priority in the current diagnosis and treatment of coronary heart disease. Health education can help with issues related to the occurrence, self-rescue and treatment of coronary heart disease. However, traditional health education is passively accepted by patients and has limited effect on prognosis. The family-centered health education model treats the patient's family as a whole, emphasizes the importance of family education [2], and uses relevant theories to formulate a feasible health education intervention model. Using the intervention theory of the family as a whole, a "family support team" was established to improve the quality of life of families of patients with coronary heart disease through the family care support model and the education model of medical staff. The results are as follows.

1.1 Object

Select 2 0 1 7 Year 6 Month - 2 0 1 8 Year 4 80 patients with coronary heart disease in a community health service center in Tianjin each month were the subjects of the study. Inclusion criteria: Comply with WHO (1997) diagnosis, that is, meet any of the following conditions: (1) Typical angina symptoms, except aortic valve disease; (2) History of old myocardial infarction; (3) Diagnosed acute myocardial infarction history. Able to communicate; Permanent resident; Sign informed consent form. Exclusion criteria: Heart function class IV; patients with severe arrhythmia, neurological diseases and acute myocardial infarction; patients with other major systemic diseases and malignant tumors. Inclusion criteria for families of patients with coronary heart disease: (1) Relatives living together; (2) Caring about the physical and mental needs of patients; (3) Voluntary participation.

1.2 Method

1.2.1 Grouping method
The patients are coded according to a group of three adjacent random numbers in the random number table, and random cards are made and placed in opaque envelopes. During the intervention, the envelopes were opened, and the participants were divided into the control group and the observation group according to the odd and even numbers on the cards.

1.2.2 intervention methods

(1) The control group implemented routine community health education for patients. Including regular distribution of coronary heart disease health education manuals, voluntary health consultation at community health service centers; holding a monthly lecture on coronary atherosclerotic heart disease; every 1 to 2 Prepare 1 issue of health education electronic bulletin board every month. (2) The observation group consists of patients and their main family members, and a family education-centered approach is adopted in the form of education and follow-up. The measures are as follows: ① Systematic assessment: By chatting with the patient and his family members and observing the patient's living habits, systematically assess the psychological and physiological conditions of the patient and his family members, the family's basic situation and the importance they pay to understanding coronary heart disease, and find the entry point for health education to formulate individualized health care. Educational Programs. Establish a trusting doctor-patient relationship, listen to the medical needs of patients and their families, and provide timely and effective answers to improve their cooperation and compliance. ② Formulate health education goals and content: Based on the above assessment, discuss the patient's current problems with family members in detail, mobilize family strength to the greatest extent, provide physical and mental support to the patient, and encourage family members to jointly supervise the patient's living habits. Based on the actual understanding of patients and their families about coronary heart disease, a targeted health education goal, content and education method are formulated. At the same time, based on the comprehensive evaluation results, patients and their families are guided to improve the fine-tuning standards and choose the optimal health education plan. ③ Family follow-up: Communicate face-to-face with patients and their families to understand their understanding of the causes of coronary heart disease and self-treatment, provide guidance on precautions in daily life and correct medication use to achieve a consolidated effect, and retell health education knowledge in stages. Through retelling, patients can be identified Existing misunderstandings, blind spots and missing content should be corrected, improved and supplemented in a timely manner to achieve a consolidated effect. ④ Check-up and feedback: Check patients and their families every week on their implementation of healthy lifestyles such as medical compliance, healthy physical and mental status, and provide feedback based on the check-up results. ⑤ Psychological guidance: The occurrence of coronary heart disease is obviously related to the patient's emotion, psychology, personality model, etc. Therefore, psychological guidance to the patient is particularly important. In addition, the long course of coronary heart disease may require patients to take long-term medication, which will cause a heavy psychological burden and may easily cause irritability, anxiety, or even discontinue treatment on their own. Therefore, we are required to detect patients' psychological fluctuations in a timely manner, provide targeted psychological guidance, and encourage patients to improve compliance. The general intervention time is 3 months.

1.3 Tool Evaluation

1.3.1 Baseline Information Questionnaire
The research team developed content: gender, age, marital status, education level, family history, medical history, smoking history, drinking history, type of coronary heart disease, and the presence of other comorbidities (hypertension/diabetes, etc.).

1.3.2 Family function
Using Epstein The Family Function Assessment Scale (FAmily Assessm ent Device, FAD) [3] compiled by , emotional involvement AI, behavioral control BC and total functional GF). Scale items range from 1 to 4 Point scoring system, the higher the score, the more unhealthy the family function of the respondent is. In this study, the Cronbach's coefficient (Cr on bach's α) of this scale was 0.86. 1.3.3 quality of life SF-36 The scale [4] is a brief health questionnaire developed by the Boston Health Research Institute in the United States. It is currently the most widely used questionnaire in the world for measuring health-related quality of life. It can be used for both the general population and patients. It has good reliability and validity [5-6] and is the "gold standard" in quality of life research. This scale contains a total of 36 items, which can be divided into 8 dimensions. The 8 dimensions can be divided into two modules, namely the "Physical Health General Evaluation" module and the "Mental Health General Evaluation" module. The physical health general evaluation includes: physiological functions, physiological functions, physical pain and overall health 4 Dimensions, the overall mental health assessment includes: vitality, social functioning, emotional functioning and mental health, SF-36 The higher the score, the better the patient's quality of life.

1.4 Statistical Processing Data

Used SPSS 21.0 The software processes and analyzes the measurement data in x ± s is represented by t test, and the count data is represented by n Expressed using χ^2 Test, $P < 0.05$ means the difference is statistically significant.

2 RESULT

2.1 Comparison of Baseline Data between the Two Groups of Patients

Comparison of baseline data between the observation group and the control group is shown in Table 1.

Table 1 Comparison of baseline data between the observation group and the control group

Project	Control Group (n= 4 3)	Observation Group (n= 37)	χ 2/z Value	p Value
gender male	26	20	0.3 34	0.56 3
female	17	17		
nationality Han nationality	37	30	0.36 0	0.54 8
minority	6	7		
Education level Junior high school and below	20	18	0. 1 9 0	0.9 1 0
High school/ technical secondary school	17	13		
University and above	6	6		
Cardiac Function Class I	18	19	1.39 4	0.4 9 8
Level II	15	13		
Class III	10	5		
History of interventional therapy	8	10	0. 80 9	0.36 8
none	35	27		
Disease classification Myocardial ischemia	13	16	2. 1 4 6	0.34 2
angina pectoris	15	13		
myocardial infarction	15	8		
Course of disease ＜ 5 years	11	12	1.0 82	0.5 82
5～ 10 years	27	19		
> 10 years	5	6		
family history have	12	10	0.0 0 8	0.9 30
none	31	27		
Smoking history have	15	19	2.2 0 7	0. 1 37
none	28	18		
Comorbidities have	13	11	0.0 1 6	0. 89 9
none	30	27		

2.2 Comparison of Baseline Data of Patients' Family Members between the Two Groups

There were 93 family members of patients in the two groups, including 46 in the control group. Person, age 20～ 73 years old, average (47.56±9.48) years old; of which 30 are spouses People, children 8 people, parents 2 People, other 6 People; education level: 3 people are primary school and below, 4 people are middle school Person, high school/technical secondary school 1 0 People, college degree and above 2 9 people. Observation Group 4 7 Person, age 18~ 7 3 years old, average (4 3.7 2 ± 10.33) years old; including   28 spouses and 12 children Person, parent 1 person, others 6 People; education level: 5 people are in primary school or below, 8 people are in middle school, 8 people are in high school/technical secondary school, and 26 people are in college or above. There was no statistically significant difference in the baseline data of the patients' family members between the two groups (P>0.05).

twenty three Comparison of family functions between two groups

FAD of patients in the control group before intervention Total score (78. 1 2 ± 5.4 1) points, observation group FAD Total score (7 2.33± 7.4 6) points, the difference is not statistically significant (t= 1.0 7 5, P= 0. 1 6 7). FAD in the observation group after 3 months of intervention The score was significantly lower than that of the control group, and the difference was statistically significant (P< 0.05), Table 2.

Table 2 Comparison of family functions (average score of item pool) between the observation group and the control group after intervention (x±s, points)

Dimensions	Control Group (n= 4 3)	Observation Group (n= 37)	t Value
Problem solving PS	2.58± 0.6 2	1.82± 0.3 8a	3.6 6
Communication CM	2.35± 0.4 1	1.7 2 ± 0.35a	5.7 9
Role RL	2.53± 0.32	1.99± 0.2 8a	6.0 5
Emotional response AR	2.7 4 ± 0.4 4	1.86± 0.3 1 a	5.2 1
Emotionally involved AI	2.6 1± 0.2 2	1.75± 0.2 8b	4.10
Behavior ControlBC	2.45± 0.30	2. 1 7 ± 0.2 2 b	2. 1 4
Total function GF	2.37± 0.2 9	1.87± 0.19a	3.0 5
total score	2.52± 0. 1 3	1.9 4 ± 0. 1 5b	5.4 4

Note: compared with the control group, aP<0.05; compared with the control group, bP<0.01

2.3 Comparison of Quality of Life between Two Groups

Before intervention, the total score of quality of life (SF-36) of patients with coronary heart disease in the control group was (85.4 2 ± 2 8.7 7) points, the observation group patients had SF - 36 The total score is (87.2 2 ± 30.6 1) points, SF - 36 The difference in total scores was not statistically significant (t= 0.9 7 3, P= 0.3 1 5). Intervention 3 After one month, the scores of each dimension and the total score of the quality of life of the patients in the observation group were significantly higher than those of the control group, and the difference was statistically significant (P< 0.0 1), see Table 3.

Table 3 Comparison of quality of life scores between the observation group and the control group after intervention (x±s, points)

Dimensions	Control group (n= 4 3)	Observation group (n= 37)	t value
Physiological function PF	2 1.2 0 ± 7. 1 2	2 4.52 ± 6.2 3a	2.17
physiological function RP	5.32± 2.0 8	7.4 4 ± 2.3 1 a	4.3 3
Somatic pain BP	6.9 8 ± 2.3 3	8.3 1 ± 2.9 7 a	1.9 6
General health statusGH	1 5.3 1 ± 5.6 3	20.89± 7.32a	8.9 4
Energy VT	1 3. 1 0 ± 4. 8 1	1 6.35± 5. 1 0 b	5.2 3
social function SF	7. 1 1 ± 2.0 1	8.32± 3.7 3b	1.2 4
Emotional function RE	4.6 2 ± 1.3 3	7.52± 1.5 1b	3.0 5
Mental HealthMH	18.52± 1 0.6 4	2 3.7 4 ± 1 1.2 6 a	4.32
total score	9 2. 88 ± 2 3.39	1 1 0.2 5 ± 32.0 4b	1 2.32

Note: compared with the control group, aP<0.05; compared with the control group, bP<0.01

3 DISCUSS ARGUMENT

3.1 Family-Centered Health Education Model can Improve Coronary Heart Disease

Patient's family functioning The family-centered health education model was proposed by American scholars in the context of the transformation of the medical model to "bio-psycho-social" [7] This model requires medical staff to place patients in families and communities, and patients are part of the social environment. As the incidence of coronary heart disease increases, medical staff are required to focus on coronary heart disease Health education for patients after they return to their families, communities and society. The mode The intervention is carried out using individualized health education methods and is targeted at each patient. Key issues that exist, discussed with the patient and their primary carer and develop individualized health education measures. This will not only encourage medical staff to Establish a good relationship of mutual trust with patients and their families, and also provide patients with Creating a better physical environment and giving full play to the supervisory role of family members can improve Family functioning in patients with coronary heart disease. Studies have shown that for patients with coronary heart disease, After being given a family-centered health education model, the families of patients in the observation group The functional dimensions and total scores were higher than those of patients in the control group, and the differences were all There is statistical significance. Analysis of possible reasons: family-centered health The education model contributes to family harmony, utilizes family strength, and helps patients with coronary heart disease Provide psychological counseling to patients, which is beneficial to the physical and mental development of patients and is conducive to good health Develop good habits. Secondly, coronary heart disease has a familial genetic tendency. Members often share common living habits, and studies have confirmed that "family history" is a potential risk factor for coronary heart disease. Patients with coronary heart disease When providing health education, patients' families can also gain information about coronary heart disease. related knowledge and also played a positive role in the health of patients' families. These All help to improve the family functions of patients with coronary heart disease.

3.2 Family-Centered Health Education Model can Improve Coronary Heart Disease

patient quality of life Research shows that the quality of life of patients with coronary heart disease is of great value to their treatment and prognosis. Coronary heart disease is a common chronic disease that often relapses due to various triggers. Patients may have multiple attacks or be hospitalized. Coronary heart disease causes angina pectoris, restriction of physical activity, increased financial burden, and patients' concerns about prognosis. It not only reduces patients' physiological functions, but also causes a series of psychological problems, significantly reducing their quality of life and significantly lower than domestic norms. Perfect health education is of great significance in the management of diseases. Because patients with coronary heart disease in my country are more likely to use surrender or avoidance in their coping styles, patients can still control their negative emotions on their own. However, the ability to manage many bad habits and daily life management is relatively weak, including quitting smoking, limiting alcohol, eating healthily, and doing moderate exercise based on heart function. The reason may be that patients have the concept of "emphasis on treatment and neglect of prevention" in their consciousness, and are not sure about the effect of non-drug treatment. In

addition, the patients in this study were older. Elderly people have weakened energy, weak learning ability and adaptability. These directly hinder patients' enthusiasm and possibility to participate in daily life management. In response to these problems, we choose low-cost, effective treatment and rehabilitation programs for patients based on their interests and the premise of ensuring curative effect, and implement a family-centered health education model. We not only focus on solving the main problems of patients, but also provide care and support to patients. Caregivers explain knowledge about coronary heart disease prevention and treatment. Pay attention to the participation and management of family members, provide high-frequency teaching, and use family ties as the hub to help patients improve their vitality (VT), social function (SF), and role restriction (RE) due to emotional problems. The score was significantly higher than that of the control group, which suggests that the family-centered health education model for patients and their families (primary caregivers) is conducive to achieving better results in health education, enabling patients to have firm beliefs, helping patients reduce external risks, and ultimately improve Quality of life.

According to this study, the family-centered health education model can significantly improve the family functions of patients with coronary heart disease in the community, help improve the quality of life of patients, and the application effect is significantly better than general conventional health education, and it is worthy of promotion and application in community work.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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