

Effect of individual psychological nursing intervention on quality of life and mental health status of patients with liver cirrhosis.

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Abstract

Objective: To explore the effect of individualized psychological nursing intervention on the quality of life and mental health of patients with cirrhosis, and to carry out rehabilitation nursing for patients with liver cirrhosis.

Method: In a hospital selected patients which are diagnosed with liver cirrhosis and treatment of 224 in total, and according to the random number table is divided into an experimental group and control group. Each group of 112 cases, were given routine nursing intervention and individualized psychological nursing intervention, and according to the method of nursing care of patients with 5 months recorded the mental state of the patients in the two groups, living conditions, mental status, two group patients quality of life and mental health status of the comparison of two kinds of nursing intervention, and draw the best nursing intervention of in patients with liver cirrhosis.

Results: The quality of life, the score of the individual groups were significantly higher, the difference was statistically significant, the difference was statistically significant between $P < 0.05$, and the difference between nursing before and after $P > 0.05$, there was no significant difference between conventional nursing group and conventional nursing group.

Conclusion: Personalized psychological nursing has a positive effect on the quality of life and mental health of patients with liver cirrhosis.

Keywords: Personalized psychological nursing, Liver cirrhosis, Life quality, Mental health.

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Introduction

Liver is an important organ of human metabolism, and has a function of storing glycogen and synthesis of secreted proteins. Liver cirrhosis is a chronic liver disease caused by one or more etiology which can form a diffuse liver damage. There are many factors that cause cirrhosis, including viral hepatitis, alcoholism, malnutrition, metabolic block, cholestasis etc. The main clinical symptoms include fatigue, abdominal distension, hepatosplenomegaly, jaundice, liver palm, spider angioma. These factors are easily developed for liver cirrhosis. Clinical cure is more difficult, and the cirrhosis has the characteristics of the delayed healing disease, symptoms repeatedly, and poor prognosis [1]. The treatment of patients with liver cirrhosis and clinical nursing on the condition of the control and recovery has an important influence. In recent years for individualized nursing care on the quality of life of patients with liver cirrhosis and other studies have found that the influence of active and meticulous nursing intervention on the psychological status and illness recovery has a positive impact.

Thus, individualized psychological nursing intervention is of great significance to the mental health condition and quality of life of patients with cirrhosis.

Information and Method

General information

Ethical approval was given by the medical ethics committee of Sixth People's Hospital of Qingdao with the following reference number: 2012006. In a hospital selected patients which were diagnosed with liver cirrhosis and treatment of 224 in total from January, 2013 to January, 2015. The select principle conforms to Guideline: prevention and treatment of viral hepatitis (2000 edition) of liver cirrhosis in related standard, 132 cases of male, 92 cases of female, aged 33 to 77 y old, average age (58 ± 7.1), the course of 1-8 y, patients with cirrhosis were diagnosed by B ultrasound or other related testing, no heart or serious mental illness and patients' cultural level were primary school and above, all kinds of scale can be

accurately understanding and contains the content. 224 patients were randomly divided into two groups, and the statistics of age, sex, education and course were not statistically significant ($P < 0.05$), which was comparable. All patients in the above statistics and experiments were informed and consented to participate in the experiment.

Research methods

224 samples of patients with liver cirrhosis were divided into two groups according to the random number table, routine nursing intervention and individualized psychological nursing intervention, 112 samples in each group. Two groups of nursing method are as follows.

Routine nursing intervention: taking general routine nursing method, namely observe and record routine items such as symptoms, blood pressure and heart rate, change drugs regularly and pay attention to drug dosage, etc.

Individualized psychological nursing intervention: the same treatment, type and dosage of the routine nursing intervention group, and the following contents were added on the basis of routine nursing intervention: 1. Patient's understanding of the disease: A detailed and patient explanation was given before the operation. The patient could have a certain understanding of the disease and eliminate the fear. Patients with liver cirrhosis often accompanied by physical pain and caused physical and psychological torture. While the misunderstanding of the disease will increase fear of the disease and psychological burden. It may be beneficial to the patient's mental health to tell patients about a certain improvement. 2. Often communicate with patients to meet the needs of patients: Liver cirrhosis patient was 50 y old or above, mostly empty nest, lonely old man. It may be helpful to patient's body and mind recover to communicate with patients and understand their idea and living condition. 3. Making corresponding diet plan according to the patient's specific condition and taste. 4. Giving guidance for patient's activity quantity and method: liver cirrhosis belongs to sever liver disease, and no apparent specific, patient's physical and mental suffering, body should give priority to with supine position, but recumbent position for a long time, patients were prone to the whole body ache, influence the psychological condition. It was necessary to carry out its activity in the process of care and content. 5. For the patient's own music: selecting the

appropriate music for the patient's age and preference and play it daily. 6. Dietary guidelines: the patient was advised to eat light, easy to digest food, avoid spicy and greasy food.

Evaluation index

The mental health status of the two groups was assessed by the self-assessment scale (SCL-90) in the first month before and after treatment, with a total of 90 items, each of which was graded 1-5. The quality of life of the two groups of patients was evaluated by QLQ, and there were 5 items of 30 items on the scale, a high score indicated a high quality of life [2].

Statistical processing

The data was analysed by SPSS 19 software. The data of measurement data was tested by t, and the counting data were tested by χ^2 , and $P < 0.05$ indicated that the difference was statistically significant.

Results

Compared the quality of life of patients before and after nursing

Through determination of the quality of life scale, using SPSS 19.0 to fill out a form before and after the two groups of patients with care for the statistical analysis results, including the physiological function, physical function, cognitive function, personal mood, mental health, diet, psychological condition, the condition of pain, respiratory and digestive conditions to evaluate. Personalized team score increased significantly after nursing, statistical results before and after care was $P < 0.05$, the difference was statistically significant. There was no significant difference before and after the routine group nursing (Table 1).

Compared the mental health score of patients before and after nursing

For the two groups of patients, the mental health score of the patients was statistically, and after personalized group nursing was $P < 0.05$, and the difference between nursing and nursing was statistically significant. After nursing of routine nursing group, $P > 0.05$. There was no obvious difference before and after nursing (Table 2).

Table 1. Comparison of quality of life of two groups of patients after discharge.

Dimension	Individualized psychological nursing intervention		Routine nursing intervention	
	Before nursing	After nursing	Before nursing	After nursing
Physiological function	62.57 ± 3.10	70.34 ± 2.80 ^a	62.07 ± 2.11	64.21 ± 1.83 ^b
Physical function	65.75 ± 4.01	73.10 ± 2.98 ^a	64.88 ± 2.01	65.73 ± 2.31 ^b
Cognitive function	63.37 ± 2.13	71.29 ± 3.76 ^a	62.95 ± 1.34	64.19 ± 1.95 ^b

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Personal mood	67.28 ± 1.81	77.87 ± 1.15 ^a	65.25 ± 1.98	67.18 ± 2.09 ^b
Mental health	64.54 ± 3.32	73.87 ± 2.94 ^a	62.92 ± 2.54	65.13 ± 3.12 ^b
Dietary condition	63.36 ± 2.79	69.18 ± 2.21 ^a	64.08 ± 3.69	65.02 ± 2.92 ^b
Psychological condition	62.31 ± 2.90	70.03 ± 1.19 ^a	62.53 ± 4.00	63.18 ± 1.57 ^b
Pain condition	65.83 ± 3.18	73.81 ± 3.05 ^a	66.05 ± 2.85	67.98 ± 1.88 ^b
Respiratory condition	69.51 ± 2.08	70.26 ± 1.91 ^a	68.07 ± 1.97	69.95 ± 2.45 ^b
Digestive conditions	62.35 ± 3.52	68.93 ± 2.33 ^a	64.34 ± 2.89	65.89 ± 3.01 ^b

Note: ^aP<0.05 was compared before and after the treatment of individualized group nursing, and the routine nursing group was compared with ^bP>0.05.

Table 2. Mental health score of the two groups of patients before and after nursing.

Item	Individualized psychological nursing intervention		Routine nursing intervention	
	Before nursing	After nursing	Before nursing	After nursing
Anxiety	1.28 ± 0.23	1.12 ± 0.19 ^a	1.33 ± 0.11	1.21 ± 0.09 ^b
Fear	1.95 ± 0.12	1.78 ± 0.15 ^a	1.93 ± 0.81	1.73 ± 0.31 ^b
Hostility	1.87 ± 0.88	1.49 ± 0.24 ^a	1.90 ± 0.34	1.85 ± 0.16 ^b
Hate	1.83 ± 0.45	1.61 ± 0.19 ^a	1.79 ± 0.25	1.68 ± 0.38 ^b
Depressed	1.62 ± 0.32	1.43 ± 0.13 ^a	1.88 ± 0.39	1.81 ± 0.21 ^b
Delusion	1.63 ± 0.18	1.41 ± 0.51 ^a	1.70 ± 0.25	1.63 ± 0.19 ^b
Horror	1.78 ± 0.19	1.55 ± 0.12 ^a	1.75 ± 0.13	1.68 ± 0.57 ^b
Sensitivity	1.92 ± 0.77	1.79 ± 0.17 ^a	1.82 ± 0.19	1.79 ± 0.28 ^b
Manic	1.83 ± 0.28	1.68 ± 0.33 ^a	1.73 ± 0.30	1.68 ± 0.35 ^b
Psychoticism	1.31 ± 0.16	1.12 ± 0.09 ^a	1.29 ± 0.27	1.22 ± 0.11 ^b

Note: ^aP<0.05 was compared before and after the treatment of individualized group nursing, and the routine nursing group was compared with ^bP>0.05.

Discussion

Liver cirrhosis is the common clinical disease, with a complex pathogen, no obvious symptoms. Once the disease becomes serious, with no specific and special treatment and long duration, it will seriously affect the patient's physical and mental health. With the improvement of living standard, the incidence of cirrhosis increases and tends to be younger. The recovery of liver cirrhosis is related not only to treatment and drug types and it is very important for nursing care of patients with liver cirrhosis. In recent years, nursing method tends to be more personalized, humanized nursing mode and occurred a music therapy, health education for nursing, diet nursing, psychological counselling, etc. [3]. The study has shown that patients with liver cirrhosis can lead to anxiety, depression and other psychological disorders, caused by a variety of adverse reactions [4,5], and the quality of life and mental health are inseparable connection [6,7]. The World Health Organization (WTO) to define the quality of life [8,9], including mental, physical, mental, etc., indicates that close relation between the three factors, so for nursing care of patients with liver cirrhosis is not limited to the recovery of health, to improve the quality

of life of the patients should also be considered within the scope of nursing and clinical nursing should be strengthened in the patients with physical and psychological intervention at the same time, popularize knowledge of disease, reduce the negative emotions [10-12]. In addition to the psychological factors have an effect on the recovery of liver cirrhosis, eating habits is also the important factors affecting the development of disease, the diet nursing care is important, to improve the poor eating habits is beneficial to the liver functional recovery [13-15].

This study formulated considering various factors in the way of nursing intervention, for patients after illness due to unknown to cirrhosis of the liver itself and produces the negative psychological emotions such as anxiety, depression, and anger. After the diagnosis for liver cirrhosis patients with disease propaganda work, make a comprehensive understanding of patients with cirrhosis, and explain the pathogen, development, treatment and recovery in detail to reduce the patient's psychological burden. For patients admitted to hospital for a single person, sometimes feel lonely and will produce different degrees of depression to affect mental health. Irregular

communication with the patient in the process of understanding, and give some mental channel is beneficial to patient's psychological health, for the recovery of liver cirrhosis also have a positive role. Moderate exercise is conducive to improvement of the liver cirrhosis. In this experiment, tutoring the amount of exercise and time of the patient can strengthen the body's immune, prevent his disease invasion and increase patient's body burden. Sports should guarantee the principle such as the slow, light, prevent excessive movement causes physical pain, general can arrange patients in small increments exercise such as walking, jogging, etc. Music can relieve pressure, modern studies have found that for the recovery of disease also have certain effect, according to patients' personal preferences, playing the music of certain amount, usually choose slow and beautiful songs, lent itself to the restoration of cirrhosis of the liver, also can reduce the psychological burden. For patients with liver cirrhosis should not be overweight, so for patients with eating light, eat less greasy are essential. In the dietary nursing care, the patient should be the principle of low fat, high protein, high vitamin and digestible food, mainly rice noodles, fresh fruits and vegetables, avoid tobacco and alcohol, greasy, water salt.

References

1. Zhu QW, Fang PA, Zhou LZ. Correlation analysis of self-care ability and healthy behaviors in patients with liver cirrhosis. *J Nurs* 2007; 3: 4-6.
2. Ding W, Wang JY. Effects of personalized nursing intervention on quality of life and nursing satisfaction of patients with esophageal cancer. *Clin Rehab Chinese Tumor* 2015; 9: 108-1090.
3. Wang LX, Yu F, Wu GK, Zheng RJ, Gao JL. The effects of comprehensive quality nursing intervention on liver function and quality of life in patients with cirrhosis. *W Chinese Digest Magaz* 2015; 10: 1637-1643.
4. Barbuscia MA, Cingari EA, Torchia U. Indications for and limits of conservative surgery in breast cancer. *G Chir* 2013; 34: 90-94
5. Iwatani T, Matsuda A, Kawabata H. Predictive factors for psychological distress related to diagnosis of breast cancer. *Psychooncology* 2013; 22: 523-259.
6. Jin S, Yan L, Li B. Quality of life and psychologic distress of recipients after adult living-donor liver transplantation (LDLT)-A study from mainland China. *Transplant Proc* 2010; 42: 2611-2616
7. Xie Z, Luo Y, Xiao F. Health-related quality of life of patients with intermediate hepatocellular carcinoma after liver resection or transcatheter arterial chemoembolization. *Asian Pac J Cancer Prev* 2015; 16: 4451-4456.
8. Taniguchi E, Kawaguchi T, Otsuka M, Uchida Y, Nagamatsu A, Itou M, Oriishi T, Ishii K, Imanaga M, Suetsugu T, Otsuyama J, Ibi R, Ono M, Tanaka S, Sata M. Nutritional assessments for ordinary medical care in patients with chronic liver disease. *Hepatol Res* 2013; 43: 192-199.
9. Zambrone FAD, Correa CL, Amaral LMSD. A critical analysis of the hepatotoxicity cases described in the literature related to Herbalife (r) products. *Braz J Pharm Sci* 2015; 51: 785-796.
10. Tsai LH, Lin CM, Chiang SC, Chen CL, Lan SJ, See LC. Symptoms and distress among patients with liver cirrhosis but without hepatocellular carcinoma in Taiwan. *Gastroenterol Nurs* 2014; 37: 49-59.
11. Kim YJ, Park JS, Choi HJ. Differences in the symptom distress between young adult and adult patients with advanced cancer admitted to acute palliative care unit. *Off J Am Soc Clin Oncol* 2016; 34: 99.
12. Li CF, Feng SH, Chien LY. Relationship between symptom distress and fatigue in hepatocellular carcinoma patients who received transcatheter arterial embolization. *Hu Li Za Zhi J Nurs* 2015; 62: 57-65.
13. Zhang MG, Wang R. Psychological status of liver cirrhosis patients might impact disease self-management learning. *Am J Gastroenterol* 2014; 109: 141-142.
14. Polis S, Fernandez R. Impact of physical and psychological factors on health-related quality of life in adult patients with liver cirrhosis: a systematic review protocol. *Datab Syst Rev Implement Rep* 2015; 13: 617-625.
15. Liao S. Psychological nursing intervention of psychological status in patients with hepatitis b viral hepatitis cirrhosis impact study. *W Latest Med Info* 2015.

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