

Discussion on the Application and Nursing Countermeasures of Psychological Intervention in Cirrhosis Nursing

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Abstract: *Objective:* To explore the clinical value of a systematic psychological intervention program in nursing for hospitalized patients with cirrhosis, and sort out psychological nursing implementation countermeasures suitable for cirrhosis patients. *Methods:* A total of 84 patients with cirrhosis admitted from October 2023 to October 2025 were selected as research subjects and randomly divided into a control group and an observation group with 42 cases in each group by random number table. The control group received routine liver disease nursing, while the observation group received hierarchical and multi-dimensional psychological interventions on the basis of routine nursing. Six indicators, including anxiety, self-management ability, treatment compliance, health behaviors, disease coping styles, and quality of life, were compared between the two groups before and after intervention. *Results:* There was no statistically significant difference in baseline data of all observed indicators between the two groups before intervention ($p > 0.05$). After intervention, the Hamilton Anxiety Scale (HAMA) scores of both groups decreased, and the scores of the observation group were significantly lower than those of the control group ($p < 0.05$). The improvement ranges of self-management ability, treatment compliance, and Health-Promoting Lifestyle Profile (HPL) scores in the observation group were higher than those in the control group ($p < 0.05$). The negative coping scores of the observation group decreased significantly while the positive coping scores increased remarkably, with statistically significant differences compared with the control group ($p < 0.05$). *Conclusion:* Constructing standardized psychological intervention nursing countermeasures for patients with cirrhosis can effectively relieve negative emotions such as anxiety and fear, correct negative disease coping modes, strengthen patients' self-management and treatment compliance, standardize healthy behaviors, and comprehensively improve patients' quality of life. It is worthy of standardized promotion in clinical nursing of liver diseases.

Keywords: Cirrhosis; Psychological intervention; Clinical nursing; Nursing countermeasures

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1. Introduction

Cirrhosis refers to diffuse liver damage caused by long-term or repeated stimulation of one or multiple

pathogenic factors, with pathological manifestations including extensive hepatocellular necrosis, diffuse proliferation of fibrous tissues, and destruction of hepatic lobule structure ^[1]. As a chronic disease with a long and intractable course, cirrhosis often triggers various psychological problems such as anxiety and depression in patients due to prolonged illness, refractory symptoms, and poor prognosis ^[2-4]. The psychological status of cirrhosis patients not only affects their subjective feelings and quality of life, but also influences disease progression through neuroendocrine and immune pathways ^[5]. Long-term psychological stress accelerates the progression of liver fibrosis, increases the incidence of complications, and reduces patients' medication adherence ^[6]. Therefore, systematically integrating psychological intervention into the whole process of cirrhosis nursing has become an important direction to improve nursing quality.

2. Materials and methods

2.1. General information

A total of 84 hospitalized patients diagnosed with cirrhosis from October 2023 to October 2025 were selected and divided into two groups with 42 patients each via a random number table. There was no statistically significant difference in baseline data, including age, gender, and disease course, between the two groups ($p > 0.05$), which made inter-group comparison feasible.

2.1.1. Control group

24 males and 18 females; aged 45–62 years old with a mean age of (59.12 ± 1.12) years; disease course ranging from 1 to 5 years with an average course of (3.12 ± 0.45) years.

2.1.2. Observation group

23 males and 19 females; aged 48–61 years with a mean age of (59.09 ± 1.20) years; disease course ranging from 1 to 4 years with an average course of (3.14 ± 0.62) years.

(1) Inclusion criteria

Clinically diagnosed with cirrhosis; complete verbal communication ability and basic cognitive comprehension; voluntary participation with signed informed consent.

(2) Exclusion criteria

Incomplete medical records; combined autoimmune diseases; severe organic lesions of other vital organs; hearing impairment; short expected survival time; failure to complete the whole intervention and scale evaluation.

This study has been reviewed and approved by the hospital Medical Ethics Committee.

2.2. Intervention methods

2.2.1. Routine nursing for control group

The control group received standardized routine nursing for cirrhosis without targeted psychological counseling. After admission, vital signs, abdominal signs, and scleral jaundice were continuously monitored, and examinations such as liver function tests and abdominal imaging were completed cooperatively. Patients were orally informed of the whole treatment process, oral medication time, dosage, and common adverse reactions uniformly. Ward rounds were conducted regularly during hospitalization; once abnormalities such as bleeding, early signs of hepatic encephalopathy, and sharp ascites increases occurred, doctors were

notified immediately, and corresponding treatments were given. Liver disease health education manuals were distributed uniformly, and basic requirements of a low-salt, low-fat, high-quality protein diet as well as smoking and alcohol cessation were routinely informed, without personalized psychological communication and emotional counseling.

2.2.2. Psychological intervention for observation group

On the basis of all routine nursing operations, a four-module systematic psychological intervention nursing strategy was established to carry out psychological counseling in stages and hierarchically.

(1) Establish a stable, trusted nurse-patient relationship and basic emotional comfort

Nurses communicated with patients one-on-one at bedside gently and patiently, shifting from the traditional operation-oriented nursing concept to acting as listeners and psychological guides. A special communication period of 15–20 minutes was reserved every day to observe changes in patients' facial expressions, sleep and diet, so as to detect early signs of emotional fluctuations. When patients raised fears about prognosis and complications, nurses responded objectively without evasion or exaggeration, explaining that the disease was controllable to alleviate patients' despair. Empathetic communication was maintained throughout the whole process instead of didactic education, enabling patients to freely pour out inner pressure, preliminarily relieve initial negative emotions such as tension, anxiety, and treatment resistance, build a safe and trusted nurse-patient communication foundation, and lay groundwork for subsequent psychological counseling.

(2) Hierarchical disease health education to correct cognitive misconceptions

Hierarchical health education was carried out according to patients' educational level and comprehension ability to eliminate psychological panic caused by insufficient disease cognition. Before examinations, medication administration, puncture and other operations, patients were informed in advance of operation purposes, full procedures, physical sensations and risk control measures to improve their sense of treatment security. Popular language was adopted to explain the pathogenesis of cirrhosis, typical symptoms, drug mechanisms, and long-term diet and work-rest management key points, correcting misconceptions that cirrhosis inevitably deteriorates rapidly and medicines are ineffective. Emphasis was placed on standardized treatment and long-term health management, which can delay liver fibrosis and reduce the incidence of massive hemorrhage and hepatic encephalopathy, reducing patients' unfounded pessimism from a cognitive perspective and establishing rational disease awareness.

(3) Individualized mental assessment and targeted emotional counseling

Preliminary psychological assessment and background information collection, including education background, family income, accompanying situation, and personality characteristics, were completed within 24 hours after admission. ① Anxious and irritable patients: Focus on illustrating clinical effects of various treatments, provide cases of long-term stable disease under standardized control, and adopt relaxation training such as soft music, calligraphy, and short videos to distract attention and relieve persistent irritability. ② Psychologically dependent patients: Involve family members in nursing intervention, provide basic psychological comfort training for family members to deliver continuous emotional support and reduce patients' sense of helplessness. ③ Depressive and passive patients: Regularly share rehabilitation cases of patients with the same disease, set up an in-hospital patient mutual aid group and hold a patient exchange meeting once a week to enable patients to exchange disease control experience, boost self-confidence and

reduce loneliness, so as to achieve therapeutic goals.

(4) Strengthen family collaborative psychological support nursing

Family members' emotions directly affect patients' conditions and serve as external factors determining psychological status. Nurses communicated with patients' family members separately on a regular basis, clearly informing them not to show negative emotions such as passiveness, impatience, and abandonment during accompanying. Family communication methods in daily life were guided, with more encouragement, company, and positive affirmation provided. Family members were informed that sufficient family psychological support can greatly improve patients' medication adherence, and they were urged to actively participate in psychological intervention to build a three-party collaborative psychological support system of "patient-nurse-family" and eliminate sources of family psychological pressure.

2.3. Observation indicators

All scales were evaluated uniformly before and after intervention with unified nurse-guided questionnaire filling to ensure complete and valid data.

2.3.1. Emotional status

The Hamilton Anxiety Scale (HAMA) was adopted, with a total score ranging from 0 to 78; higher scores indicate more severe anxiety.

2.3.2. Self-management ability

Self-designed cirrhosis self-management questionnaire covering four dimensions: disease knowledge mastery, diet control, work-rest schedule, and healthy behaviors. Each dimension scored 0–25 points with a total score of 0–100; higher scores represent better self-management.

2.3.3. Treatment compliance

Self-designed treatment compliance questionnaire including four dimensions: medication adherence, active regular follow-up, willingness to cooperate with treatment, and disease acceptance mentality, with a total score of 0–100; higher scores mean higher treatment compliance.

2.3.4. Health behaviors

The Health-Promoting Lifestyle Profile (HPL) was used, with a total score ranging from 52 to 208; higher scores indicate more standardized healthy living behaviors.

2.3.5. Disease coping styles

The Ways of Coping Questionnaire (WCQ) is divided into negative coping and positive coping subscales, each scored 0–24; higher scores represent a greater tendency to adopt such coping modes.

2.4. Statistical methods

All research data were imported into SPSS 26.0 professional statistical software for analysis. Measurement data were expressed as mean $\pm$ standard deviation ($\bar{x} \pm s$); an independent-samples *t*-test was adopted for intra-group comparison before and after intervention as well as inter-group comparison. Count data were expressed as cases and percentages. and analyzed by test. The judgment standard was set as $p < 0.05$ for

statistically significant intra-group or inter-group differences.

3. Results

3.1. Comparison of HAMA anxiety scores between two groups before and after intervention

There was no statistically significant difference in HAMA scores between the two groups before intervention ($p > 0.05$). Anxiety scores of both groups decreased significantly after intervention, and the scores of the observation group were markedly lower than those of the control group with statistical significance ($p < 0.001$). See **Table 1**.

Table 1. Comparison of HAMA anxiety scores between two groups before and after intervention ($\bar{x} \pm s$, points)

Group	n	Before intervention	After intervention	<i>t</i>	<i>p</i>
Observation group	42	62.1 $\pm$ 2.3	42.3 $\pm$ 2.1*	15.831	< 0.001
Control group	42	62.3 $\pm$ 1.9	48.9 $\pm$ 1.7*	0.434	0.665

Note: *Compared with the same group before intervention, $p < 0.05$.

3.2. Comparison of self-management ability, treatment compliance and HPL scores between two groups

No significant inter-group differences were found in the three indicators before intervention ($p > 0.05$). All three scores of both groups increased after intervention, and each score of the observation group was significantly higher than that of the control group ($p < 0.05$). See **Table 2**.

Table 2. Comparison of self-management ability, treatment compliance and HPL scores between two groups ($\bar{x} \pm s$, points)

Group	n	Self-management ability		Treatment compliance		HPL score	
		Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Observation group	42	60.6 $\pm$ 5.3	78.3 $\pm$ 4.2*	68.2 $\pm$ 5.8	88.3 $\pm$ 5.8*	112.9 $\pm$ 19.3	173.6 $\pm$ 18.5*
Control group	42	60.2 $\pm$ 4.4	72.7 $\pm$ 5.1*	67.9 $\pm$ 4.5	80.2 $\pm$ 4.6*	112.9 $\pm$ 21.2	154.1 $\pm$ 19.6*
<i>t</i>		0.376	5.493	0.265	7.091	0.321	4.689
<i>p</i>		0.708	< 0.001	0.792	< 0.001	0.608	< 0.001

Note: *Compared with the same group before intervention, $p < 0.05$.

3.3. Comparison of WCQ disease coping style scores between two groups

There were no statistically significant differences in negative and positive coping scores between the two groups before intervention ($p > 0.05$). After intervention, negative coping scores decreased and positive coping scores increased in both groups, and the improvement range of the observation group was obviously superior to that of the control group ($p < 0.001$). See **Table 3**.

Table 3. Comparison of WCQ coping style scores between two groups before and after intervention ($\bar{x} \pm s$, points)

Group	n	Negative coping		Positive coping	
		Before intervention	After intervention	Before intervention	After intervention
Observation group	42	21.6 $\pm$ 1.3	11.3 $\pm$ 2.2*	14.1 $\pm$ 2.8	20.3 $\pm$ 2.8*
Control group	42	21.2 $\pm$ 2.5	16.7 $\pm$ 3.1*	14.1 $\pm$ 2.5	18.2 $\pm$ 2.6*
<i>t</i>		0.920	9.206	< 0.001	11.401
<i>p</i>		0.360	< 0.001	> 0.999	< 0.001

Note: *Compared with the same group before intervention, $p < 0.05$.

4. Discussion

Cirrhosis is a lifelong chronic progressive liver disease with no radical cure in clinical practice. The main treatment goals are to control the progression of liver fibrosis, prevent severe complications, prolong survival time, and improve daily quality of life. Long-term recurrent physical discomfort, high medical expenses, and fear of massive hemorrhage, liver failure, and liver cancer make most cirrhosis patients trapped in psychological states such as anxiety, depression, and self-denial for a long time^[7-9]. Traditional routine nursing only focuses on physical symptom monitoring and basic health education without targeted psychological counseling procedures, failing to break the vicious cycle of mutual physical and mental damage, resulting in poor comprehensive nursing effects^[10].

The data of this study show that the four-module systematic psychological intervention scheme on the basis of routine nursing can comprehensively improve nursing outcomes for cirrhosis patients. In terms of emotional indicators, the HAMA anxiety score of the observation group decreased more significantly than that of the control group after intervention, indicating that the combined scheme of nurse-patient trust construction, individualized emotional counseling and family collaborative support can directly release patients' psychological pressure and relieve severe anxiety. In terms of disease management indicators, the improvement ranges of self-management, treatment compliance and health behavior scale scores in the observation group were higher than those in the control group, mainly because hierarchical health education eliminated patients' negative mentality that cirrhosis was incurable and treatment was ineffective, stimulated internal treatment motivation, and prompted patients to actively implement health management requirements including diet, work-rest and medication^[11]. The data on disease coping styles showed that the negative coping score of the observation group decreased significantly while the positive coping score increased remarkably, which was attributed to the implementation of group psychological intervention measures such as patient mutual aid groups and rehabilitation case sharing. Cirrhosis patients often have stigma and are unwilling to talk about their conditions with relatives and friends. Long-term solitude easily leads to negative thinking. Shared disease experience among patients is more likely to generate empathy; exchanging disease control experience can eliminate loneliness and helplessness, rebuild treatment confidence, and encourage patients to face the disease actively^[12-14].

5. Conclusion

In conclusion, implementing standardized, hierarchical, and multi-subject collaborative psychological

intervention nursing measures for cirrhosis patients can significantly alleviate negative emotions such as anxiety, reverse negative disease coping modes, improve self-management ability, treatment compliance, and standardization of healthy behaviors, and comprehensively optimize patients' physical, psychological, social, and environmental quality of life. As an indispensable nursing means to improve the overall nursing effect of cirrhosis, it is recommended to be routinely carried out as a standardized nursing process for cirrhosis ^[15].

Disclosure statement

The author declares no conflict of interest.

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