

Application and Effectiveness Evaluation of Cognitive Behavioral Therapy in Psychological Care for Patients with Anxiety and Depression

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Abstract: *Objective:* To explore the application effect of cognitive behavioral therapy in psychological care of patients with anxiety and depression. *Methods:* Research time: October 2024–October 2025, research subjects: 120 patients with anxiety and depression who meet the criteria. The final results after grouping showed that there were 60 cases in each of the experimental group and the control group. The guidance basis for the grouping operation was: computer randomization method. The control group received conventional drug treatment + basic psychological care, and the experimental group implemented cognitive behavioral therapy on this basis to explore the effects of the intervention in the two groups. *Results:* After 12 weeks of intervention measures, the HAMA score and HAMD score of the experimental group were significantly reduced, comparison $p < 0.05$. After 12 weeks of intervention, the coping style of the experimental group was significantly improved, comparison $p < 0.05$. The quality of life of the experimental group was significantly improved after 12 weeks of intervention, comparison $p < 0.05$. *Conclusion:* Cognitive behavioral therapy can effectively reduce symptoms of anxiety and depression and improve coping ability and quality of life by adjusting patients' cognitive patterns and improving behavioral habits.

Keywords: Cognitive behavioral therapy; Anxiety; depression; Psychological care; Effect evaluation

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1. Introduction

As the most common psychological disorders in clinical practice, the incidence of anxiety and depression has been increasing year by year and has become a common problem that plagues people of all ages ^[1]. At present, anti-anxiety and antidepressant drugs are still the mainstream clinical treatment options. Drug treatment usually requires continuous use for 2–4 weeks before the effect begins to show. Some patients may interrupt treatment because their symptoms are not relieved in time while waiting for the drug to take effect, further reducing the patient's medication compliance ^[2]. There are also some patients who, although their acute symptoms are under control after completing a course of drug treatment, are prone to relapse when encountering stressful life events, suggesting that it is difficult to fundamentally solve the problem

by relying solely on drugs. Cognitive behavioral therapy, as a psychological intervention method, has been widely used in clinical practice in recent years. This method is based on cognitive behavioral theory and gradually establishes a more objective and rational cognitive style by helping patients identify their own negative thinking patterns. Compared with simple drug treatment, cognitive behavioral therapy has the advantages of long-lasting effects and minimal side effects, and is especially suitable for patients with mild to moderate anxiety and depression^[3]. To this end, this study explores the intervention effect of cognitive behavioral therapy, which is summarized as follows:

2. Materials and methods

2.1. General information

2.1.1. Selection

The research period is from October 2024 to October 2025. 120 patients with anxiety and depression admitted to the hospital during this period were collected as the research basis. According to the principle of balance and comparability between groups, they were randomly divided into an experimental group and a control group, with 60 cases in each. The proportion of men and women in the control group: 27:33; the age range is 18–65 (38.72 ± 10.53) years old, and the duration of the disease is 3–24 (10.45 ± 4.32) months; the proportion of men and women in the experimental group is 24:36; the age range is 20–63 (37.89 ± 11.25) years old, and the duration of the disease is 4–26 (11.32 ± 4.57) months. Comparison of baseline data between the 2 groups $p > 0.05$.

2.1.2. Inclusion criteria

- (1) Consistent with the diagnostic criteria for anxiety disorder and depressive disorder in the International Classification of Diseases, Tenth Revision (ICD-10);
- (2) Signed consent form;
- (3) No serious physical disease;
- (4) Able to cooperate in completing the study.

2.1.3. Exclusion criteria

- (1) Have a history of severe mental illness such as schizophrenia and bipolar disorder;
- (2) Serious suicidal tendencies;
- (3) Are participating in other psychological treatments;
- (4) Drug or alcohol dependence;
- (5) Have received electroconvulsive therapy in the past month.

2.2. Method

The control group received conventional drug treatment + basic psychological care. Doctors prescribed selective serotonin reuptake inhibitor drugs, including paroxetine or sertraline, according to the condition. The starting dose was the lowest effective dose. Nurses are responsible for medication guidance and informing of possible adverse reactions and treatment methods. Health education is conducted once a week, including disease knowledge and medication precautions, providing necessary emotional support and answering questions. Monthly follow-up visits are arranged, and the doctor adjusts the medication plan according to changes in symptoms.

The experimental group implemented cognitive behavioral therapy on the basis of routine psychological care:

2.2.1. Frequency and form of treatment

Individual treatment was arranged twice a week, each time for 45 minutes, with an interval of 3 to 4 days between the two treatments. The treatment was carried out in a quiet and independent consulting room to ensure privacy. Patients were

treated on time according to the appointment time to avoid aggravating anxiety due to waiting.

2.2.2. Core treatment

(1) Cognitive reconstruction

The therapist assists the patient to record negative thoughts that appear in daily life, such as thinking that he can't do anything well, or feeling that others are laughing at him. Then the therapist will work with the patient to analyze the rationality of these thoughts and find factual basis to judge their authenticity. Through continuous practice, the patient can gradually master a more objective and rational way of thinking and change the original negative thinking pattern.

(2) Behavioral activation training

The therapist and the patient work together to develop a step-by-step activity plan, starting with simple daily activities, such as tidying up the room, taking a short walk, etc., and gradually increasing the difficulty and social component of the activity. Each time a goal is completed, the patient can receive positive reinforcement.

(3) Mindfulness cognitive therapy

The therapist develops a schedule and conducts training twice a week, including 8 links: mindfulness meditation, mindfulness breathing, mindfulness eating, mindfulness kindness, etc., to manage emotions, improve individual happiness, and improve negative emotions.

2.2.3. Homework setting and follow-up

Corresponding homework will be assigned after each treatment. The homework content includes emotional diary recording, thought record sheet filling, behavioral experiments, etc. The therapist will check the completion of the homework in detail before the next treatment and provide guidance on the problems encountered. To urge the patient to complete the homework, the therapist can remind and encourage the patient through phone calls or text messages. For patients with weak understanding ability, homework templates and detailed instructions need to be provided. For homework with higher quality, they can be praised during the treatment to enhance the patient's confidence in treatment.

2.2.4. Treatment schedule and progress management

The entire intervention cycle is determined to be 12 weeks, with a total of 24 treatments. The first 4 weeks focus on establishing a therapeutic relationship and assessing problems, the middle 6 weeks focus on cognitive behavioral intervention, and the last 2 weeks focus on preventing recurrence and consolidating the efficacy. Each treatment has clear goals and themes, and the content before and after is connected to each other. A phased evaluation will be conducted in the middle of the treatment, and the focus of subsequent treatment will be appropriately adjusted based on the evaluation results. Near the end of the period, the frequency of treatment can be reduced to once a week to help patients gradually adapt to independent management.

2.2.5. Precautions and handling of special situations

During the treatment process, pay close attention to the patient's emotional changes. If symptoms are found to be aggravated or suicidal tendencies appear, refer them to a psychiatrist in a timely manner for medication adjustment;

2.3. Observation indicators

(1) Mental state assessment

The Hamilton Anxiety and Depression Rating Scale (HAMA, HAMD) is used for assessment. Each item of HAMA is scored from 0 to 4, with a total score of 56 points, ≥ 29 points for severe anxiety, and a total HAMD score of 52 points, and ≥ 25 points for severe depression.

(2) Coping style

A simple coping style questionnaire is used, with scores ranging from 1 to 4 points for each dimension.

(3) Quality of life

Using the SF-36 scale, the scores for each dimension range from 0 to 100 points.

2.4. Statistical methods

SPSS26.0 software was used for processing. Measurement and counting data were represented by “($\bar{x} \pm s$)” and “[n/(%)]”. Differences corresponded to t and χ^2 test. There was statistical significance at $p < 0.05$.

3. Results

3.1. HAMA and HAMD score

After 12 weeks of intervention measures, the HAMA score and HAMD score of the experimental group were significantly reduced, comparison $p < 0.05$. (Table 1)

Table 1. Comparison of HAMA scores and HAMD scores ($\bar{x} \pm s$, points) between the two groups

Group	n	HAMA rating		HAMD rating	
		Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention
Experimental group	60	28.45 $\pm$ 3.67	12.32 $\pm$ 2.85	26.78 $\pm$ 3.52	11.45 $\pm$ 2.63
Control group	60	27.89 $\pm$ 3.54	19.76 $\pm$ 3.12	26.32 $\pm$ 3.67	18.45 $\pm$ 3.04
t	-	0.851	13.638	0.701	13.489
p	-	0.397	0.000	0.485	0.000

3.2. Response methods

After 12 weeks of intervention, the coping style of the experimental group was significantly improved, comparison $p < 0.05$. (Table 2)

Table 2. Comparison of coping style scores between the two groups ($\bar{x} \pm s$, points)

Group	n	Respond proactively		Negative response		Problem solving	
		Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention
Experimental group	60	1.89 $\pm$ 0.45	3.45 $\pm$ 0.56	3.45 $\pm$ 0.67	1.78 $\pm$ 0.45	2.12 $\pm$ 0.56	3.67 $\pm$ 0.62
Control group	60	1.92 $\pm$ 0.43	2.56 $\pm$ 0.48	3.52 $\pm$ 0.63	2.89 $\pm$ 0.52	2.08 $\pm$ 0.52	2.78 $\pm$ 0.57
t	-	0.373	9.347	0.590	12.503	0.405	8.186
p	-	0.710	0.000	0.557	0.000	0.686	0.000

3.3. Quality of life

The quality of life of the experimental group was significantly improved after 12 weeks of intervention, comparison $p < 0.05$. (Table 3 and 4)

Table 3. Comparison of quality-of-life scores (physiological function, physiological functions, somatic pain and general health) between the two groups ($\bar{x} \pm s$, points)

Group	n	Physiological function		Physiological functions		Somatic pain		General health	
		Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention
Experimental group	60	53.24 $\pm$ 6.57	78.65 $\pm$ 7.23	42.36 $\pm$ 5.89	72.34 $\pm$ 6.45	45.67 $\pm$ 6.23	76.89 $\pm$ 7.01	38.45 $\pm$ 5.67	71.23 $\pm$ 6.89
Control group	60	54.12 $\pm$ 6.32	63.45 $\pm$ 6.78	41.89 $\pm$ 6.12	58.67 $\pm$ 6.23	46.12 $\pm$ 5.97	62.34 $\pm$ 6.45	39.12 $\pm$ 5.34	59.56 $\pm$ 6.12
<i>t</i>	-	0.748	11.879	0.429	11.808	0.404	11.831	0.666	9.809
<i>p</i>	-	0.456	0.000	0.669	0.000	0.687	0.000	0.507	0.000

Table 4. Comparison of quality-of-life scores (vitality, social function, emotional function, mental health) between the two groups ($\bar{x} \pm s$, points)

Group	n	Vitality		Social function		Emotional function		Mental health	
		Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention	Before intervention	12 weeks of intervention
Experimental group	60	36.78 $\pm$ 5.23	74.56 $\pm$ 6.78	39.45 $\pm$ 5.89	75.67 $\pm$ 7.12	35.67 $\pm$ 5.45	73.45 $\pm$ 6.67	34.89 $\pm$ 5.12	72.34 $\pm$ 6.45
Control group	60	37.45 $\pm$ 5.67	61.23 $\pm$ 6.45	40.23 $\pm$ 6.01	64.56 $\pm$ 6.89	36.12 $\pm$ 5.89	62.34 $\pm$ 6.23	35.45 $\pm$ 5.67	63.45 $\pm$ 6.12
<i>t</i>	-	0.673	11.034	0.718	8.686	0.434	9.429	0.568	7.745
<i>p</i>	-	0.502	0.000	0.474	0.000	0.665	0.000	0.571	0.000

4. Discussion

In today's society, anxiety and depression have become common mental illnesses, and their causes involve biological, psychological and social factors. At present, drugs combined with psychological care are mainly used in clinical treatment. Drugs such as paroxetine or sertraline can relieve symptoms by regulating neurotransmitter levels. However, the drugs take a long time to take effect and can easily cause various adverse reactions. They are easy to relapse after drug withdrawal, resulting in low patient medication compliance^[4]. Conventional psychological care mostly focuses on the transmission of disease knowledge and emotional comfort, but cannot affect patients' deep-rooted cognition and behavior, resulting in unsatisfactory intervention effects. Cognitive behavioral therapy is based on the theoretical basis of the interaction of cognition, emotion and behavior, and helps patients establish more positive thinking and behavioral habits by identifying and correcting unreasonable cognitions^[5]. The results of this study show that after 12 weeks of intervention measures, the HAMA score and HAMD score of the experimental group were significantly reduced, comparison $p < 0.05$. Analysis of the reasons: Through cognitive behavioral intervention, patients will be able to actively examine their negative thoughts after realizing thinking biases such as catastrophizing and overgeneralization, and gradually adjust negative expectations into attitudes that can be tried and improved. Through changes in thinking, negative emotions can be effectively alleviated^[6]. After 12 weeks of intervention, the coping style of the experimental group was significantly improved, comparison $p < 0.05$. Analysis of reasons: Behavioral activation training can enable patients to reduce avoidance and withdrawal and actively participate in daily activities. Through gradually setting plans by themselves, patients can gradually restore their confidence in the process of experiencing success, thereby reducing negative reactions and improving their stress management level^[7]. The quality of life of the experimental group was significantly improved after 12 weeks of intervention, comparison $p <$

0.05. Analysis of the reasons: Long-term changes in thinking habits can promote the gradual recovery of patients' physical fitness, social functions, and emotional and mental states, and these changes can promote each other, making the patient's overall living status show a continuous improvement trend ^[8].

To sum up, cognitive behavioral therapy not only helps patients reduce the distress of negative emotions by guiding them to change their inherent way of thinking, but also promotes them to have stronger adaptability in the face of stress, thus improving the overall physical and mental state and quality of life.

Disclosure statement

The author declares no conflict of interest.

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