

ANALYSIS OF QUALITY PSYCHIATRIC CARE IN BIPOLAR DISORDER PATIENTS WITH MANIC EPISODES

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ABSTRACT

Objective: This paper aims to investigate the effects of quality psychiatric care on cognitive function, medication compliance, and mania in patients with bipolar disorder manic episodes.

Methods: A total of 100 patients with bipolar disorder manic episodes admitted to our hospital from December 1, 2018 to November 30, 2020 were selected for this study. The patients were divided into 50 cases in the observation and control groups each, using the random number table method. Conventional care was provided in the control group, and psychiatric quality care was provided in the observation group on the basis of conventional care. Besides, cognitive function (using the Wechsler Adult Intelligence Scale (WAIS-RC) and the Wechsler Memory Scale (WMS)), medication adherence, and mania (using the Bech-Rafaelsdn Mania Rating Scale (BRMS)) were compared between the two groups before and after the intervention.

Results: After the intervention, operational IQ and IQ scores in the WAIS-RC as well as long-term memory, short-term memory, and memory quotient scores in the WMS were higher in the observation group than in the control group ($p < 0.05$). Besides, following the intervention, medication adherence was higher in the observation group than in the control group ($P < 0.01$). Furthermore, BRMS scores were higher in both groups after the intervention than before the intervention ($P < 0.01$). In addition, they were higher in the observation group than in the control group ($P < 0.01$).

Conclusion: Providing patients with bipolar disorder manic episodes with psychiatric quality care can effectively improve their cognitive function, increase their medication compliance, and reduce their mania scores, being worthy of clinical promotion.

Keywords: Quality care, bipolar disorder, manic episodes, cognitive function, compliance.

DOI: 10.19193/0393-6384_2021_6_520

Received March 15, 2021; Accepted June 20, 2021

Introduction

Bipolar disorder is a common clinical disorder, the pathogenesis of which is not yet understood. However, most scholars believe that it is a complex disease influenced by both genetics and the environment. The main clinical manifestation in this disorder is abnormally low or high mood. Besides, patients affected by this disorder have a certain degree of cognitive impairment that seriously affects their quality of life and exasperates their families⁽¹⁻³⁾.

According to research, the lifetime prevalence of bipolar disorder in the United States is 4%, while research shows that the rate is 1.49% in China⁽⁴⁾. Clinical treatment of bipolar disorder is currently based on antimanic, antidepressant, and antipsychotic medications, yet they are not effective⁽⁵⁾.

However, related research shows that new models of care can improve treatment outcomes, cognitive function, and medication adherence in patients with bipolar disorder manic episodes⁽⁶⁾. From December 1, 2018 to November 30, 2020,

a total of 50 patients with bipolar disorder manic episodes were treated with psychiatric quality care, which produced satisfactory results. Accordingly, the related report has been presented as follows.

Material and methods

Clinical information

The study subjects included a total of 100 patients with bipolar disorder manic episodes. The subjects included 55 males and 45 females, who aged 19 to 69 (45.82 ± 11.83) years, with the disease duration of 3 to 9 (5.3 ± 1.3) years, who referred to the psychiatric department of our hospital for treatment during the same period.

The inclusion criteria were:

- Patients who met the diagnostic criteria of bipolar disorder;
- Patients whose mania scale score was >10 ;
- Patients who aged ≥ 18 years;
- Patients who voluntarily joined this study and had high compliance;
- (50) patients whose general clinical information was complete.

The exclusion criteria were:

- Patients with non-bipolar manic episodes;
- Patients who aged <18 years;
- Patients with other serious heart, liver, kidney, or brain diseases;
- Women in pregnancy or lactation periods.

The patients were divided into 50 cases in each of the observation and control groups using the random number table method. In the control group, there were 26 males and 24 females who aged 21-68 (44.53 ± 11.49) years and had a disease duration of 3-8 (5.2 ± 1.2) years. In the observation group, there were 29 males and 21 females who aged 19-69 (44.52 ± 12.02) years and had a disease duration of 4-9 (5.4 ± 1.5) years. According to the findings, there was no statistically significant difference between the two groups in terms of general clinical information, such as age, gender, and duration of the disease ($P > 0.05$). This study was approved by our medical Ethics Committee, and all patients were briefed on its purpose and voluntarily enrolled in it.

Methods

Both groups received conventional antimanic and antiepileptic medications.

Control group

The control group was provided with

conventional care, including basic care, drug care, vital sign monitoring, and health education.

Observation group

The observation group was provided with quality nursing care in psychiatry based on conventional nursing care, with the following five measures.

- The organization of a quality nursing team: The team leader was an experienced nurse. The principle of voluntary participation was used to encourage nurses to actively participate in the study, and they were chosen on merit. Besides, training was provided to all group members to ensure that each of the group members had a deep understanding of quality care.

- The nursing staff was supposed to take the initiative to introduce themselves and remove the distance between the patients and the nurses. Besides, the nursing staff was asked to dress neatly and communicate with the patients with a smile and a soft language. Besides, the ward was clean and tidy, which gave the patients a warm feeling, thereby making it easy for them to receive treatment confidently.

- Psychological care: The nursing staff was asked to communicate with the patients face-to-face every week, using different communication strategies and according to individual characteristics of the patients. This approach meant to help them reveal their true feelings, channel their emotions, encourage the positive patients, and enlighten the negative ones.

- Health education: The content of this part included personal hygiene, drug use, adverse drug reactions, and dietary precautions during patient admission. Health education mini-classes were held once a week to explain how to adapt to roles, how to correctly understand problems, how to face setbacks, what a psychological disorder is, and how it should be treated. At the same time, health education was provided to the family members to inform them on their patients' conditions, to teach them how to communicate with the patients in daily life, to ask them to supervise the patients' rehabilitation activities, and to give rewards to the patients if they completed the daily plan in an orderly manner to help the patients recover quickly.

- Rehabilitation plan: A personalized rehabilitation plan was designed according to the patients' conditions, personal lifestyle, and family cooperation, etc. Besides, rehabilitation took the form of relaxation, catharsis, and exercise rehabilitation. Accordingly, exercise rehabilitation was started in

the 2nd week after the admission, 3 times a week, and 30-45 minutes each time. The training program was designed according to the patients' preferences and physical conditions, with jump rope and brisk walking as the main methods. After exercise rehabilitation, the health care workers and the family members would give the patients affirmation and encouragement by helping them develop exercise rehabilitation habits and reduce the probability of recurrence.

- Recovery of thinking function: Patients' thinking was improved and recovered through writing after reading, writing diaries, making drawings, etc.

- Dietary guidance: Personalized diet recipes were designed according to the individual patient's conditions to ensure their nutritional status and to promote recovery. The recipes were made based on the formulas of energy = body weight \times (25-35) kcal/d and protein = body weight \times (1.0-1.5) g/d. Accordingly, the patients and family members were urged to follow the recipes.

Observation indicators

The observation indicators included:

- Cognitive function: The Wechsler Adult Intelligence Scale (WAIS-RC) and the Wechsler Memory Scale (WMS) were both used to evaluate the patients' cognitive function before and after the intervention. Accordingly, the WAIS-RC consisted of the verbal IQ, operational IQ, and IQ, with higher scores indicating higher intelligence. Besides, the WMS consisted of long-term memory, short-term memory, transient memory, and memory quotient, with higher scores indicating a higher memory ability.

- Medication adherence: Adherence was studied using a hospital-designed scale, and the patients were classified based on their refusal to take medications within one week after the intervention. In the case of full compliance, medications were taken on time according to the medical advice. In partial compliance, medications were taken according to the medical advice, but the patients refused to take them 1-4 times a week. Concerning non-compliance, the patients refused to take medications >4 times a week. Adherence (%) was obtained by the number of the cases of full adherence + the number of the cases of partial adherence divided by the total number of the cases \times 100%.

- Mania: The Bech-Rafaelsdn Mania Rating Scale (BRMS) was used to assess mania among

the patients before and after the intervention. This scale had 11 items and was rated on a scale ranging from 0 to 5, with a score <5 indicating no significant manic symptoms, scores 6 to 10 indicating manic symptoms, and score >22 implying severe manic symptoms. In addition, higher scores indicated more significant manic symptoms⁽⁷⁾.

Statistical methods

SPSS 25.0 was used for statistical data analysis. The measurement data were expressed as $\bar{x} \pm s$ using a t-test. In addition, the count data were expressed as the composition ratio or percentage using the χ^2 test. Besides, the test level was $\alpha=0.05$.

Results

The comparison of WAIS-RC scores before and after the intervention between the two groups of the patients

After the intervention, the operational IQ and IQ scores in the WAIS-RC were higher in the observation group than in the control group ($P<0.05$). As Figure 1 shows the results as follows.

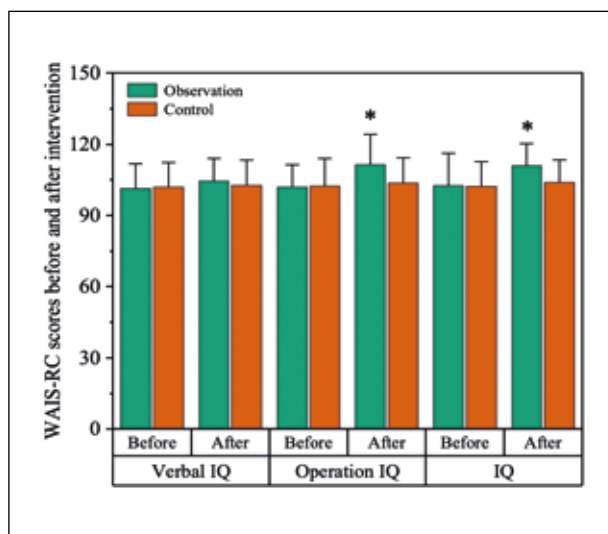


Figure 1: WAIS-RC scores before and after the intervention.

Note: * $P<0.05$, in the comparison with the control group after the intervention.

Comparison of WMS scores before and after the intervention between the two groups of the patients

After the intervention, the long-term memory, short-term memory, and memory quotient scores in the WMS were higher in the observation group than in the control group ($P<0.05$). Figure 2 shows this as follows.

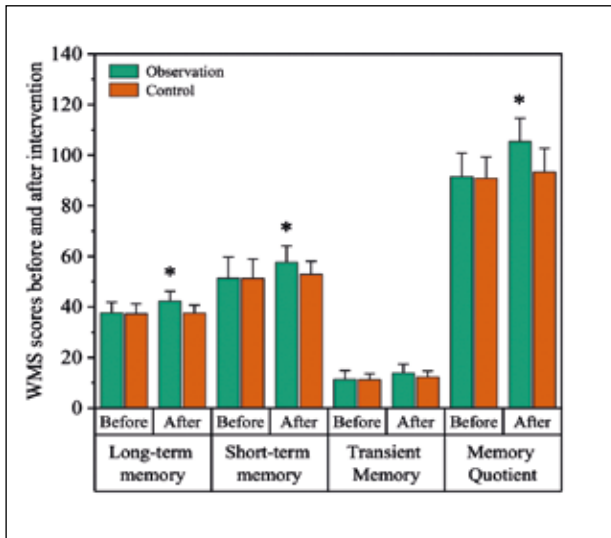


Figure 2: WMS scores before and after the intervention. Note: * $P < 0.05$, in the comparison with the control group after the intervention.

Comparison of medication adherence between the two groups

After the intervention, medication compliance was higher in the observation group than in the control group ($P < 0.01$). Table 1 shows the related results.

Group	n	Pre-admission				Post-intervention			
		Full	Partial	Noncompliance	%	Full	Partial	Noncompliance	%
Observation	50	16 (32.0)	18 (36.0)	16 (32.0)	68.0	43 (86.0)	6 (12.0)	1 (2.0)	98.0
Control	50	18 (36.0)	17(34.0)	15 (30.0)	70.0	31 (62.0)	6 (12.0)	13 (26.0)	74.0
χ^2 value					0.058				8.538
P-value					0.809				0.003

Table 1: Comparison of medication adherence between the two groups [cases (%)].

Comparison of BRMS scores before and after the intervention between the two groups

BRMS scores were higher in both groups after the intervention than before the intervention ($P < 0.01$). Besides, the observation group's scores were higher than those of the control group ($P < 0.01$). Table 2 shows the related results.

Group	n	Pre-intervention	Post-intervention	t-value	P-value
Observation	50	19.8±3.9	7.5±1.8	24.763	<0.01
Control	50	19.1±2.9	14.3±2.2	17.310	<0.01
t-value		0.396	15.917		
P-value		0.692	<0.01		

Table 2: Comparison of BRMS scores before and after the intervention between the two groups (Score, $\bar{x} \pm s$).

Discussion

Affective disorders are common psychiatric disorders in clinical practice. Bipolar disorder is a common affective disorder in which patients often express high levels of joy followed by extreme depression and uncontrolled mania⁽⁸⁾. However, these patients are often diagnosed in adulthood when treatment is more difficult. Pharmacological treatment is currently ineffective, with relevant research showing that effective nursing care can enhance treatment motivations and improve outcomes in patients⁽⁹⁾. Quality care is patient-centered. Besides, it can be enhanced based on basic care through providing patients with high-quality, efficient, comfortable, and personalized care to improve patient outcomes, help patients develop good habits, make them build confidence in overcoming the disease, regulate negative psychology, and obtain family support. Accordingly, in this study, psychiatric quality care was provided to patients with bipolar disorder manic episodes to observe its effects on cognitive function and medication adherence⁽¹⁰⁾.

Patients with bipolar disorder manic episodes often have cognitive dysfunction, mainly dominated by IQ and memory impairments^(11,12). Therefore, this study used the WAIS-RC and the WMS to evaluate the patients' IQ and memory functions before and after the intervention, respectively. According to the results of the current study, operational IQ and IQ scores of the WAIS-RC in long-term memory and in the short-term memory, as well as memory quotient scores in the WMS were higher in the observation group than in the control group after the intervention ($p < 0.05$), having been consistent with the findings of Chao Bai et al⁽¹³⁾. Besides, the results of the current study demonstrated that quality psychiatric care could improve patients' cognitive function. This could have been due to the individualized care provided in quality care, better psychological guidance provided to help patients build confidence according to their individual conditions, health education provided to family members to encourage patients, and individualized rehabilitation exercise instructions provided to help patients recover.

Patients with psychiatric disorders need to take medications for a long period of time to control their conditions. Therefore, compliance has a direct impact on treatment outcomes in these patients. The results of this study showed that medication compliance was higher in the observation group than in the

control group after the intervention ($P < 0.01$), having been consistent with the findings of Liu Jialian et al⁽¹⁴⁾. This could be due to the fact that the team providing quality care adopted various approaches and tools, such as providing health education mini-lessons, receiving encouragement from healthcare professionals and family members, and offering incentives for taking medications to help patients develop the habit of taking their medications on time and at the right dose.

The results of this study showed that the BRMS scores of the observation group were lower than those of the control group ($P < 0.01$) after the intervention. This could have been due to the good nurse-patient relationship that the team established with the patients during the intervention. Accordingly, the patients were willing to confide their emotions to the nurses, and the nurses provided them with timely psychological support. Exercise was another factor used in this study to help the patients vent their emotions to maintain a healthy mental state.

In conclusion, the provision of bipolar disorder patients with manic episodes with psychiatric quality care effectively improved their cognitive function, raised their medication compliance, and reduced their mania scores, being worthy of clinical promotion.

References

- 1) Yu LL and Wang XY. Research Progress on comorbidity of bipolar disorder and obsessive compulsive disorder [J]. Chinese Journal of psychiatry, 2019, 52 (6): 415-419.
- 2) Liu Y. Effect of systematic nursing on cognitive function and rehabilitation of manic episode patients with bipolar disorder [J] Chinese and foreign women's health research, 2019,14 (9): 33-34.
- 3) Lv XL. Evaluation of nursing effect of comprehensive personalized nursing intervention on patients with bipolar depression [J] China health nutrition, 2019,29 (10): 197.
- 4) Li MS, Wu ZM, Li XS, et al. Epidemiological survey of bipolar disorder among residents over 15 years old in Hunan Province [J]. China public health, 2018, 34 (8): 1065-1069.
- 5) Chen C, Zheng LD, Xie ZL, et al. Investigation on clinical characteristics and drug use of inpatients with bipolar disorder [J]. Chinese Journal of general practice, 2020, 23 (2): 245-250.
- 6) Du GR, Zhou XM and Huang CY. The application of multidisciplinary team nursing intervention in patients with bipolar disorder in remission stage [J]. Qilu Journal of nursing, 2020, 26 (7): 33-36.
- 7) Huang QS, Cai CL, Xu ZH, et al. Effect of Qingshen Xingnao Decoction Combined with magnesium valproate sustained release tablets on manic episode of bipolar disorder and its influence on cognitive function and inflammatory factors [J]. Chinese Journal of traditional Chinese medicine, 2019, 37 (1): 166-169.
- 8) Wu Y, Yang QP, Fan J, et al. Investigation on physical examination rate of patients with severe mental disorders in Wuxi community and analysis of its influencing factors [J]. Modern preventive medicine, 2019, 46 (3): 455-460.
- 9) Niu XJ, Xia Y, Tao YH, et al. Effect of wechat group led continuous nursing intervention on cognitive function and social function of patients with stable bipolar disorder [J]. Journal of nursing education, 2019, 34 (4): 369-372.
- 10) Liu Y, Wu ZH, Yuan MJ, et al. Effect of individualized high quality nursing on quality of life of maintenance hemodialysis patients [J]. Anhui medicine, 2017, 38 (6): 790-792.
- 11) Wang Q. Effect analysis of high quality nursing for patients with bipolar disorder and depression [J] Electronic Journal of clinical medicine, 2019,12 (11): 90-91.
- 12) Zhao HY. Effect of supportive psychological nursing on cognitive and social function rehabilitation of patients with bipolar disorder in remission period [J]. Qilu Journal of nursing, 2018, 24 (9): 27-30.
- 13) Bai C and Chen HY. The effect of systematic nursing on cognitive function and quality of life of bipolar disorder manic patients [J]. Chinese and foreign medical research, 2018, 16 (34): 80-81.
- 14) Liu JL and Wang HL. Effect of wechat doctor-patient interaction platform combined with magnesium valproate sustained release tablets on treatment compliance of patients with manic episode of bipolar disorder [J]. Journal of clinical psychiatry, 2017, 27 (6): 394-396.

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