Application of Mentalization-Based Family Therapy Combined with Cognitive Behavioral Therapy in Adolescent Patients with Depressive Disorder

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Abstract

Objective: To investigate the therapeutic efficacy of integrating mentalization-based family therapy and cognitive behavioral therapy in the intervention of adolescent patients with depression. Methods: Eighty adolescent patients with depression who received treatment between May 2023 and May 2024 were selected as the study sample and equally allocated to an experimental group and a control group (40 patients each) through digital random sampling technique. The experimental group received combined intervention of mentalization-based family therapy and cognitive behavioral therapy, while the control group received standard treatment protocols. Comparative analysis was conducted on the Hamilton Depression Rating Scale (HAMD) scores, depression factor scores in the Symptom Checklist-90 (SCL-90), and overall treatment efficacy between the two groups before and after treatment. Results: There was no significant difference in HAMD scores between the observation group and the control group before treatment ($P > 0.05$). After treatment, the observation group scored lower than the control group ($P < 0.05$), and within-group comparison also showed significant differences between pre- and post-treatment data ($P < 0.05$). There was no significant difference in SCL-90 depression factor scores between the observation group and the control group before treatment ($P > 0.05$). After treatment, the observation group scored lower than the control group ($P < 0.05$), and within-group comparison also showed significant differences between pre- and post-treatment data ($P < 0.05$). Meanwhile, the total clinical effective rate of the observation group (95.00%) was higher than that of the control group (80.00%) ($P < 0.05$). Conclusion: For adolescent patients with depressive disorders, the combination of mentalization-based family therapy and cognitive behavioral therapy demonstrates significant therapeutic effects, can alleviate depressive symptoms, improve depressive conditions, and plays an important role

in promoting patient recovery.

Full Text

Application of Mentalizing Family Therapy Combined with Cognitive Behavioral Therapy in Adolescent Patients with Depressive Disorder

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Abstract

Objective: To investigate the therapeutic efficacy of combining mentalizing family therapy with cognitive behavioral therapy in adolescent patients with depressive disorder. **Methods:** Eighty adolescent patients with depression who received treatment between May 2023 and May 2024 were selected as the study sample and randomly divided into an observation group and a control group, with 40 patients in each group. The observation group received combined mentalizing family therapy and cognitive behavioral therapy, while the control group received conventional treatment. Comparative analysis was conducted on Hamilton Depression Scale (HAMD) scores, depression factor scores from the Symptom Checklist-90 (SCL-90), and overall treatment efficacy between the two groups before and after treatment. **Results:** No significant difference was found in HAMD scores between the observation and control groups before treatment ($P>0.05$). After treatment, the observation group scored significantly lower than the control group ($P<0.05$), with significant within-group differences between pre- and post-treatment data ($P<0.05$). Similarly, no significant difference existed in SCL-90 depression factor scores between groups before treatment ($P>0.05$). Post-treatment scores were significantly lower in the observation group compared to the control group ($P<0.05$), with significant within-group differences ($P<0.05$). Additionally, the total clinical effective rate in the observation group (95.00%) was significantly higher than that in the control group (80.00%) ($P<0.05$). **Conclusion:** The combination of mentalizing family therapy and cognitive behavioral therapy demonstrates significant therapeutic effects in adolescent patients with depressive disorder, effectively alleviating depressive symptoms, improving their condition, and playing a crucial role in promoting patient recovery.

Keywords: Mentalizing family therapy; Cognitive behavioral therapy; Adolescents; Depressive disorder; Therapeutic application

Adolescent mental health constitutes a vital component of public health, bearing implications for family well-being, social stability, and future developmental trajectories [1]. Adolescent depression represents a prevalent psychological disorder with complex and diverse etiological factors that severely impacts both

physical and mental health while posing certain societal risks. In contemporary society, the incidence of adolescent depression ranges from 3% to 8%, with rates increasing annually. Major depression accounts for approximately 5.6% of cases among adolescents [2]. Strengthening treatment interventions for adolescent depression is imperative, with commonly employed clinical approaches including psychotherapy, pharmacotherapy, and cognitive-behavioral interventions [3]. This study aims to investigate the therapeutic efficacy of combining mentalizing family therapy with cognitive-behavioral therapy using 80 adolescent inpatients with depression at our hospital from May 2023 to May 2024, as reported herein.

1.1 General Information

This study enrolled 80 adolescent inpatients with depression at our hospital between May 2023 and May 2024, who were randomly divided into two groups of 40 patients each using digital sampling methods. The observation group received mentalizing family therapy combined with cognitive behavioral therapy, while the control group received conventional treatment. The observation group comprised 23 males and 17 females, with a mean age of $15.15\pm1.15 years. The control group consisted of 21 males and 19 females, with a mean age of 15.16±$1.45 years.

Inclusion criteria: (1) All selected patients were inpatients or outpatients at our hospital; (2) Patients and their families were informed about the study and provided signed informed consent; (3) All selected patients were diagnosed with adolescent depressive disorder; (4) Patient age range was 12-16 years.

Exclusion criteria: (1) Individuals unwilling to participate voluntarily were excluded; (2) Patients with psychiatric disorders or communication impairments were excluded; (3) Those who withdrew mid-study or had incomplete data were excluded; (4) Patients with poor treatment compliance were excluded.

Comparison of general demographic data between the two groups showed no statistically significant differences ($P>0.05$), indicating comparability.

1.2 Methods

Patients in the control group received conventional antidepressant treatment, comprising psychological and pharmacological interventions to improve their psychological condition. The observation group underwent combined mentalizing family therapy and cognitive behavioral therapy, with specific methods as follows:

Mentalizing Family Therapy Approach: (1) During the initial consultation, the fundamental framework of mentalizing therapy was explained to family members to help them recognize its importance and positive effects in addressing family issues, and to establish an understanding of using this therapy to enhance self-mentalizing skills. (2) Throughout the treatment process,

each participant's performance received precise praise and affirmation, primarily using motivational guidance to encourage patients to express themselves openly. Through this combination of praise, motivation, and communication, participants' awareness was enhanced, facilitating improvement in their cognitive abilities. Additionally, based on patients' autonomous learning interests, personalized mentalizing development pathways were established to strengthen their capacity for psychological self-regulation and control. For instance, family members were encouraged to label their own feelings and then questioned about any unlabeled or unrecognized emotions, using facts and hypotheses for repeated deliberation to develop reverse learning thinking patterns. Therapists also modeled self-mentalizing, encouraging patients and family members to communicate their inner psychological states while facilitating psychological adjustment and intervention. (3) During the final session, family members summarized recent emotional changes and improvements in psychological status, and established future directions for continued progress to ameliorate depressive symptoms.

Cognitive Behavioral Therapy: (1) The principles of cognitive behavioral therapy were explained to patients and their families to establish treatment plan objectives. (2) Through emotion management education, patients were guided to connect emotional adjustments with specific events. (3) Patients were instructed to continuously observe and record their emotional fluctuations, implementing self-monitoring to establish connections between emotions and events. (4) Positive reinforcement was applied to individual behaviors, seeking parental recognition and support to obtain their encouragement. (5) Patients were guided to identify and address social functioning challenges, motivated to actively participate in communication and sharing to enhance social skills and confidence levels. (6) Problems encountered by patients in interpersonal interactions were thoroughly explored and analyzed, with role-playing methods employed to overcome these difficulties. (7) Patients were motivated to observe and challenge their automatic thoughts, assisting them in identifying causal relationships and consequences of events. (8) During the final session, the entire treatment process was reviewed, existing problems were further discussed, and subsequent treatment plans were formulated. Typically, cognitive behavioral therapy sessions were conducted once weekly, lasting 60-90 minutes each, totaling 8 sessions. The structured family therapy model was followed, with treatment outcomes documented after each session to support improvement of depressive symptoms.

1.3 Observation Indicators

(1) The Hamilton Depression Scale (HAMD) was administered as a clinician-rated scale before and after treatment. This scale comprises 17 items, with higher scores indicating more severe depressive symptoms. (2) The Symptom Checklist-90 (SCL-90) depression factor scores were assessed before and after treatment using 10 depression factor items, with lower scores indicating milder depressive symptoms. (3) Treatment efficacy was determined based on the HAMD score reduction rate: markedly effective

(reduction rate $ $75%), effective (reduction rate $ $50%), and ineffective (reduction rate <50%). Total effective rate = (number of markedly effective + effective cases) / total number of cases × 100.00%.

1.4 Statistical Processing

Statistical analysis was performed using SPSS 19.0 software. Count data were expressed as n (%) and verified using chi-square tests. Measurement data were expressed as (mean ± standard deviation) and analyzed using t-tests. Differences with P<0.05 were considered statistically significant.

2.1 Comparison of HAMD Scores Between Groups

No significant difference was observed in HAMD scores between the observation and control groups before treatment (P>0.05). After treatment, the observation group exhibited significantly lower scores than the control group (P<0.05), with significant within-group differences between pre- and post-treatment data (P<0.05). See Table 1 .

Table 1 Comparison of HAMD Scores Between Two Groups Before and After Treatment (mean ± SD, points)
23.63$±1.2523.12±1.228.85±1.1610.36±1.653.52±1.023.63±1.152.21±1.253.05±$1.35

2.2 Comparison of SCL-90 Depression Factor Scores

No significant difference was found in SCL-90 depression factor scores between the observation and control groups before treatment (P>0.05). Post-treatment scores were significantly lower in the observation group compared to the control group (P<0.05), with significant within-group differences (P<0.05). See Table 2 .

Table 2 Comparison of SCL-90 Depression Factor Scores Between Two Groups Before and After Treatment (mean ± SD, points)

2.3 Comparison of Treatment Efficacy

The total clinical effective rate in the observation group (95.00%) was significantly higher than that in the control group (80.00%) (P<0.05). See Table 3 .

Table 3 Comparison of Treatment Efficacy Between Two Groups [n(%)]
95.00% 80.00%

3.1 Epidemiological Characteristics of Adolescent Depression

Adolescent depression is a relatively common psychological disorder with increasing incidence in current clinical research. Typically, adolescent patients with depression exhibit low mood, anhedonia, and in some cases, marked emotional

lability, irritability, and temper outbursts [4]. Additionally, affected adolescents demonstrate diminished interest in daily activities, low self-esteem, perceptions of being clumsy or unattractive, leading to self-abandonment, inferiority complexes, and in severe cases, suicidal or self-harming behaviors. Patients also present with somatic symptoms including insomnia, dizziness, chest tightness, shortness of breath, and in severe instances, urinary incontinence, significantly compromising their health [5]. Adolescent depression most commonly occurs between ages 14-16, a period coinciding with puberty when hormonal changes and other factors contribute to rebellious tendencies and severe anxiety-depressive states. The prevalence among females is more than double that among males. This disparity primarily stems from women's greater propensity for anxiety when confronting certain issues, predisposing them to depression. Seasonal pattern research indicates that autumn and winter represent peak seasons for depression onset [6].

3.2.1 Mentalizing Family Therapy

Mentalizing refers to the capacity to understand the inner worlds of self and others, encompassing psychological processes that perceive mental activities in oneself and others to gain insight into their thoughts and emotions. Mentalizing family therapy, an intervention emphasizing the cultivation of mentalizing skills also known as brief mentalizing and relational therapy, specifically targets adolescent depression. This therapeutic approach is widely applied clinically, with research confirming its innovative, timely, and highly effective nature, and has been extensively promoted in domestic adolescent depression treatment. While substantial clinical research on mentalizing family therapy exists internationally, domestic studies remain relatively scarce, leaving certain gaps in related therapeutic research [7]. The present study therefore aims to build upon clinical research foundations, focusing on mentalizing capacity development to investigate the therapeutic effects of this approach on adolescent depression patients and to systematically document its application.

3.2.2 Cognitive Behavioral Therapy

Cognitive behavioral therapy, a structured and time-efficient cognitive-oriented psychological intervention, is widely used to treat anxiety, depression, and other mental disorders. Its distinctive feature lies in focusing on correcting patients' irrational thoughts by transforming their perceptions of self and others, thereby adjusting psychological states to achieve significant mental health recovery. As one of the commonly employed methods in psychological treatment, cognitive behavioral therapy emphasizes cognitive intervention regarding patients' own perspectives, utilizing specific techniques to help patients alter their cognitive habits, thereby correcting psychological disorders during this process and gradually restoring mental health [8]. Since depression patients experience changes in their inner psychological state after onset, cognitive behavioral therapy intervention can help stabilize their psychological condition, improve psychological

barriers, and enhance their capacity for psychological intervention, thereby producing favorable therapeutic outcomes.

3.3 Advantages of Combined Therapy

Mentalizing family therapy and cognitive behavioral therapy share essentially similar therapeutic forms, both employing scientific interventions during treatment to help patients improve their condition and stabilize their health status. These approaches control patients' psychological emotion regulation and intervention plans while helping alleviate clinical barriers and enhancing their capacity for disease recovery and self-intervention [9]. Overall, the advantages of combining these methods in treating adolescent depression patients are manifested in several aspects: First, the combined application can be family-centered, reducing the impact of disease intervention on adolescent depression patients, enhancing their capacity for disease intervention, and providing support for their recovery [10]. Second, during combined therapy, the probability of rejection reactions among adolescent depression patients is significantly reduced, with most patients developing better psychological coping abilities that meet their needs for psychological correction and intervention [11]. Finally, these combined interventions can help adolescent depression patients rebuild social relationships, enhance their psychological intervention capacity for disease management, and support their recovery process. Ultimately, the combined application of these therapies can alleviate clinical symptoms and improve depressive manifestations in adolescent depression patients [12].

3.4 Analysis of Study Results

This study employed a controlled trial design, dividing 80 adolescent depression patients into two groups for different treatment interventions, yielding the following therapeutic outcomes: First, comparative analysis of symptom self-rating scales revealed no significant difference in HAMD scores between groups before treatment ($P>0.05$). Post-treatment scores were significantly lower in the observation group ($P<0.05$), with significant within-group differences ($P<0.05$). These findings demonstrate that combined mentalizing family therapy and cognitive behavioral therapy can improve treatment outcomes for adolescent depression patients, help alleviate symptoms, enhance disease intervention approaches, and support recovery. Second, comparative analysis of pre- and post-treatment SCL-90 depression factor levels showed no significant between-group difference before treatment ($P>0.05$). After treatment, the observation group exhibited significantly lower scores than the control group ($P<0.05$), with significant within-group differences ($P<0.05$). These results indicate that combined therapeutic intervention significantly reduced depression factor levels in adolescent depression patients, representing important progress toward recovery. Finally, comparison of clinical efficacy between the two groups revealed that the observation group's total effective rate (95.00%) significantly exceeded that of the control group (80.00%) ($P<0.05$). This demonstrates that

combined mentalizing family therapy and cognitive behavioral therapy produces superior overall therapeutic effects compared to conventional treatment, with higher total effective rates that better meet patients' treatment needs.

In summary, the incidence of adolescent depression continues to rise in current clinical research, with many patients experiencing significant impacts on their health and quality of life. Therefore, developing effective treatment intervention protocols and enhancing psychological resilience has become a key focus of clinical investigation. This study's integration of mentalizing family therapy with cognitive behavioral therapy provides valuable assistance for disease intervention in adolescent depression patients, fulfilling their therapeutic needs.

3.5 Conclusion

In conclusion, as adolescent depression incidence continues to increase in contemporary society, and given its substantial impact and harmful effects, scientific analysis of treatment intervention strategies is essential. This study's application of combined mentalizing family therapy and cognitive behavioral therapy for adolescent depression patients demonstrated improvements in depressive symptoms, emotional relief, and enhanced social and interpersonal capacities, representing significant benefits for patient recovery. Therefore, future clinical research should continue integrating mentalizing family therapy with cognitive behavioral therapy for application in adolescent depression treatment, thereby enhancing clinical practice capabilities and providing support for comprehensive improvement in adolescent depression treatment.

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Note: Figure translations are in progress. See original paper for figures.