

•ORIGINAL RESEARCH ARTICLE•

A Study of The Clinical Effect and Dropout Rate of Drugs Combined with Group Integrated Psychotherapy on Elderly Patients with Depression

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Background: Relevant studies have shown that group cognitive behavioral therapy is effective in treating patients with depressive disorder, but the dropout rate is high. The present study is aimed to explore the patterns of integrated group psychotherapy.

Aims: This study investigated the clinical effects of integrated group psychotherapy for elderly patients with senile depression.

Methods: One hundred elderly patients with senile depression were divided into the experiment group (n=50) and the control group (n=50) randomly. The experiment group was given regular pharmacological treatments combined with integrated group psychotherapy, while the control group was given regular pharmacological treatments combined with integrated group cognitive behavioral therapy. These two groups were assessed with the Hamilton Depression Scale (HAMD-24) and Geriatric Depression Scale (GDS-15) before the study and at two weeks, four weeks and eight weeks after the treatments.

Results: According to the comparisons within these two groups, it was found that the HAMD and GDS total scores before treatments were all significantly higher than those after treatments ($F=102.50$, $p=0.001$; $F=55.94$, $p<0.001$). We found that the HAMD total scores after four weeks and eight weeks were significantly different between the two groups ($F=3.82$, $p=0.021$). The differences between two groups' GDS total scores after two weeks, four weeks and eight weeks were also significantly different ($F=4.49$, $p=0.009$). Seven cases dropped out in the experiment group, while sixteen cases dropped out in the control group. The difference of dropout rates was statistically significant ($\chi^2=4.57$, $p=0.032$).

Conclusion: Medication treatments combined with the group integrated psychotherapy significantly improve the clinical effect for elderly patients with senile depression. The compliance is improved and the dropout rate declines.

Key words: group integrated psychotherapy; group cognitive behavioral therapy; senile depression

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1. Introduction

Many studies have shown that group cognitive behavioral therapy can improve the symptoms of patients with depressive disorder,^[1] but mainly for young patients. By contrast, research on geriatric depression is relatively sparse. Many view elderly patients as having rigid thought patterns, making the effect of psychotherapy not ideal. Therefore medication is often considered the main treatment for geriatric depression. Elderly patients with senile depression are very sensitive to medications' anticholinergic effect and influence on cardiovascular function, therefore medications are more likely to induce cardiovascular side effects, senior syndrome and other risks. This might be related to the decline of elderly patients' metabolism and the risk of elevated plasma concentration of drugs, which is highly likely to occur with the treatment dose.^[2] Currently, a great deal of research suggests that the morbidity rate of geriatric depression rises as peoples' age increases,^[3] and can seriously damage health and quality of life for the elderly. However, pharmacological treatments have limits. As a result, scholars have recently conducted clinical research about group cognitive behavioral therapy on patients with senile depression. The results have shown that group cognitive behavioral therapy can improve the clinical effect on patients with depression. However, a common problem with this therapy is that the dropout rate is relatively high, in some cases even being over 50%. The present study applied integrated group psychotherapy, a form of group therapy highly recommended by researchers, to observe its clinical effect and dropout rate among elderly patients with depression. This paper presents a novel intervention for potentially reducing the dropout rate among elderly patients with depression receiving group psychotherapy. The form of integrated group psychotherapy used in this study is based on traditional group cognitive behavioral therapy, and also includes elements of psychoanalysis, acceptance therapy, dialectical behavioral therapy, as well as other methods and techniques found in traditional Chinese Taoism, Confucianism, and Buddhism. We attempted to also include elements of the local culture into this integrated group psychotherapy intervention.

2. Methods

2.1 Participants

Study participants were recruited from patients with senile depression who were hospitalized at the Zigong Mental Health Center from November 2015 to November 2016. The inclusion criteria for all cases: ① Meeting the diagnostic criteria for a depressive episode and recurrent depressive disorder in ICD-10; ② men or women who were over 60; ③ Total scores on the Hamilton Depression Scale-24 (HAMD-24) were equal to or greater than 21; ④ At least junior high education; ⑤ providing written informed consent. The exclusion

criteria were the following: ① having a severe mental disorder or abuse of psychoactive substances; ② having comorbid severe medical illness; ③ unable to understand or engage in group psychotherapy; ④ those who did not provide written informed consent; ⑤ those who dropped out or did not complete the assessment according to the study requirements.

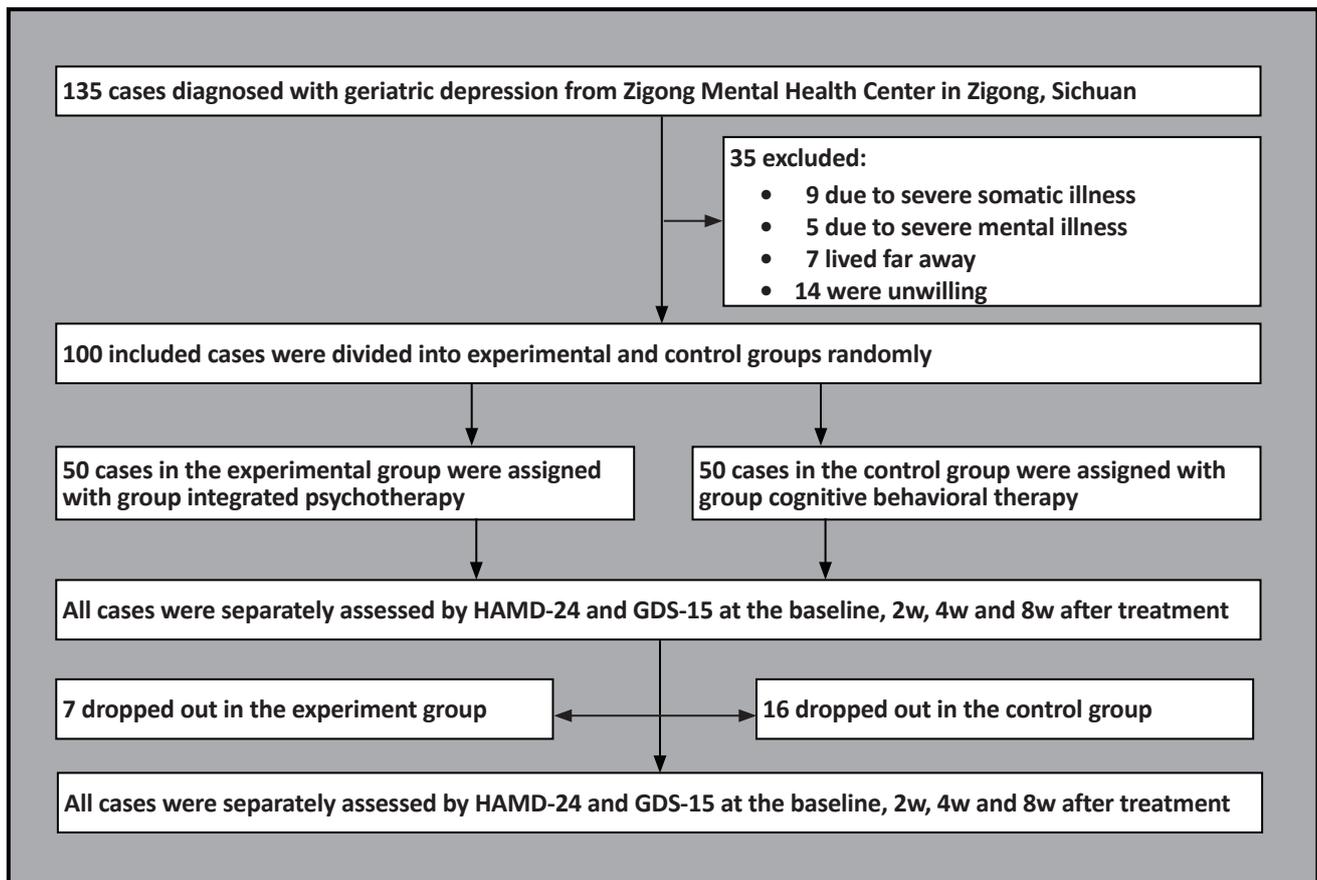
One hundred and thirty-five patients were screened for the study, and one hundred of them met the inclusion criteria and were enrolled (45 males and 55 females). The present study divided them into the group integrated psychotherapy group (the experiment group) and the group cognitive behavioral therapy group (the control group) using a random number table.

There were 50 participants in the experiment group. During the treatment period, seven of them dropped out due to worsening of their depression, voluntarily dropping from the group or not being able to complete the assessments according to the requirements. In the end, 43 of them (19 males and 24 females) completed the treatment. Their age range was 60-75 years old, and the mean (sd) age was 66.5 (5.9) years old. The range of duration of illness was 1-60 months, the mean (sd) duration of illness was 24.9 (7.3) months. Educational level of the participants was the following: 18 junior high graduates, 13 high school graduates, 9 vocational school graduates and 3 college graduates.

Fifty subjects were included in the control group, and sixteen of them dropped out due to worsening of their depression, voluntarily dropping from the group or not being able to complete the assessments according to the requirements. 34 of them completed the study (15 males and 19 females). The age range was 60-77 years old with the mean (sd) age being 66.9 (5.7) years old. The range of the duration of illness was 1-58 months, and the mean (sd) duration of illness was 24.2 (7.5) months. Participants educational levels were the following: 14 junior high graduates, 11 high school graduates, 5 vocational school graduates and 4 college graduates. We conducted analysis on the reasons why patients from both groups dropped out, and we found four main reasons. Some patients believed that psychotherapy was not effective and could not solve any realistic problems (2 from the experiment group and 5 from the control group). Some patients thought that the effect of psychotherapy was too slow, so it wasted their time (2 from the experiment group and 4 from the control group). Some patients thought that the assessments were too complicated and tiring (1 from the experiment group and 3 from the control group). Others claimed that they understood all the arguments of psychotherapy so they did not need it (2 from the experiment group and 4 from the control group)(see figure 1).

There were no significant differences between the experiment group and the control group on the gender ratio, age, duration of illness, education level ratio and the reasons for dropout ($p>0.05$).

Figure 1. The flowchart of the study



2.2 Methods

The present study was approved by the academic committee and the ethics committee of Zigong Mental Health Center. The patients and their guardians provided written informed consent to participate in this study.

2.2.1 Research tools

(1) HAMD-24 is the most commonly used scale for assessing depression. The Chinese version has good reliability and validity with inter-rater reliability being reported as 0.88-0.99.^[6] The version used for the present study is the 24-item version: a total score lower than 8 indicates no depression; a total score between 8 and 20 indicates possible depression; a total score between 21 and 35 indicates definite presence of depression; and a total score greater than 35 indicates presence of major depression. (2) Geriatric Depression Scale (GDS) is the most widely used depression screening scale that is specifically used in the elderly population.^[7,8] GDS also has good reliability and validity, and has been employed as a research tool in a depression study of the elderly population in Sichuan Province, China.^[9] The present

study employed the 15-item version. Each item can only be rated as 0 or 1, and the sum of the scores of all the items is the total score of GDS. The range of the total score is 0-15.

2.2.2 Intervention methods

Two groups were given Escitalopram tablets with an initial dose of 5 mg/d, and the adjustment dose was 5-10 mg/d. The mean (sd) dose in the experiment group was 7.5 (2.1) mg/d, while the mean (sd) dose in the control group was 7.6(2.5) mg/d. As for the patients with insomnia, small doses of benzodiazepine were added as assistance, and the doses of two groups were not significantly different from each other. The experiment group was given group integrated psychotherapy, while the control group was given group cognitive behavioral therapy; the time settings for two groups were identical. Group integrated psychotherapy employed the structured group model. There were 6-8 people in each group, and they were supervised by two psychotherapists who were trained professionally. The treatment was twice a week and 2.5

hours long each time. It lasted 4 weeks, so there were 8 sessions in total. Each patient was given an individual psychological interview before they were enrolled, and their family members were given mental health education separately to gain their approval and support as well. The setting of the psychotherapy was based on Australian Doctor Tianbao Huang's GCBT pattern,^[4] and also integrated with dynamic psychology, humanism, dialectical behavioral therapy, acceptance therapy and the views and methods of Chinese Buddhism, Taoism and Confucianism in accordance with characteristics of current Chinese depressive patients' hospitalization cycle. There were three sections in each session. The first was 45 minutes long, and it included self-introduction, sharing homework, sharing feelings and thoughts after treatments, and ice-breaking games. Then there was 15 minute break with tea and snacks. The second section was 45 minutes long as well, and it focused on introducing and discussing the theme of that day's group therapy session. The themes of eight group therapies were: ① introducing the settings of group psychotherapy, group members getting familiar with each other and introducing the three main factors of depressive mood and building motivation to change; ② group activities and the changes of mood brought by participating in activities, games, and behavioral trainings (e.g. chain analysis in DBT); ③ cognitive games ("T" riddles in ACT and Chinese finger trap) and recognizing automatic negative thinking; ④ learning to change negative and maladaptive cognition using the CBT method; ⑤ discussing changes and acceptance (6 degrees of Buddhism) and improving psychological flexibility; ⑥ personality characteristics analysis and discussing experiences of growing up (psychoanalysis); ⑦ discussing how to improve relationships and build up a good support system ("kindheartedness and justice" in Confucianism); ⑧ reviewing previous sessions, planning for the future and building long-term psychological support. Then there was another 15 minute long tea break. The third section was 30 minutes long, and it included relaxation trainings including progressive muscle relaxation exercises, breathing relaxation and meditation.

2.2.3 Evaluation

Participants were evaluated by experienced psychiatrists using the different scales. The evaluators received training in the use of these scales. Rater consistency was evaluated (Kappa = 0.85-0.91). HAMD and GDS were used to evaluate the improvements of symptoms before treatment and at two weeks, four weeks and eight weeks after treatment.

2.3 Statistical methods

SPSS 17.0 was used for the data analysis. Measurement data were represented with mean (standard deviation), and repeated measures analysis of variance and *t* tests were employed. For the missing data of the dropout patients, we applied the method of Non-Responder Imputation (NRI) in the data analysis. Enumeration data were represented with percentage (%) and were analyzed with χ^2 tests. The *p* value being less than 0.05 indicated that the difference was statistically significant.

3. Results

3.1 Comparisons between two groups' HAMD total scores before and after treatments

Comparisons of HAMD total scores within the two groups showed significant differences ($F=102.50, p=0.001$), and comparisons of HAMD total scores between the two groups also showed significant differences ($F=3.82, p=0.021$). In addition, there were also significant differences in the HAMD total scores between the two groups at week 4 and week 8, respectively ($t=3.54, p=0.001; t=2.45, p=0.017$) (See Table 1).

3.2 Comparisons between two groups' GDS total scores before and after treatments

Comparisons of GDS total scores within the two groups showed significant differences ($F=55.94, p<0.001$), and comparisons of GDS total scores between the two groups also showed significant differences ($F=4.49,$

Table 1. Comparisons between the two groups' mean(SD) HAMD total scores before and after treatments

Groups	Baseline	2 weeks after treatment	4 weeks after treatment	8 weeks after treatment	Time factor <i>F</i> (<i>p</i>)	Time * group factor <i>F</i> (<i>p</i>)
The experiment group (43)	29.3(7.5)	23.2 (5.5)	14.2 (8.1)	14.0 (7.2)	102.50 (0.001)	3.82 (0.021)
The control group (34)	30.1(5.3)	24.8 (6.7)	20.4 (7.2)	18.0 (6.8)		
<i>t</i> (<i>p</i>)	0.54 (0.589)	1.17 (0.246)	3.54 (0.001)	2.45 (0.017)		

Table 2. Comparisons between the two groups' mean(SD) GDS total scores before and after treatments

Groups	Baseline	2 weeks after treatment	4 weeks after treatment	8 weeks after treatment	Time factor <i>F</i> (<i>p</i>)	Time* group factor <i>F</i> (<i>p</i>)
Experiment group (43)	11.5 (2.1)	7.9 (3.1)	6.5 (3.8)	5.8 (3.7)	55.94 (<0.001)	4.49 (0.009)
Control group (34)	11.4 (1.6)	9.9 (2.7)	8.4 (3.4)	8.1 (3.6)		
<i>t</i> (<i>p</i>)	0.31 (0.760)	3.08 (0.003)	2.32 (0.023)	2.78 (0.007)		

$p=0.009$). At weeks 2, 4, and 8, the differences of GDS total scores between the two groups were also statistically significant ($t=3.08$, $p=0.003$; $t=2.32$, $p=0.023$; $t=2.78$, $p=0.007$) (See Table 2).

3.3 Comparisons between the two groups' dropout rates

There were 7 subjects who dropped out in the experiment group, and the dropout rate was 14%; while 16 subjects dropped out in the control group, and the dropout rate was 32%. The difference between two groups' dropout rates was statistically significant ($\chi^2=4.57$, $p=0.032$) (See Table 3). The number of dropout patients in the experiment and control groups at 2, 4, and 8 weeks after treatment were (2/4, 4/9, 7/16), respectively. We analyzed the reasons for patients' dropout, and found that some patients thought that psychological treatments could not solve practical problems (2 cases in the study group, 5 cases in control group), some patients felt that it took too long for the treatment to work (2 cases in the study Group, 4 cases in the control group), some patients felt that the psychological tests were too complicated (1 case in the study group, 3 cases in the control group), and some patients said they understood the psychological cure themselves and did not need psychotherapy (2 cases in the study group, 4 cases in the control group).

4. Discussion

4.1 Main findings

In terms of anti-depression treatments, many studies^[10-13] suggest that combining antidepressants and psychotherapy works better than antidepressants only. There has been research showing that combining medication treatment and group CBT is more effective than using antidepressants only.^[14] The present study also found that two weeks, four weeks and eight weeks after the treatment, both groups' HAMD and GDS scores were lower than before treatment, and the differences were statistically significant ($p<0.05$). In addition, the present study suggested that medication treatments with group integrated psychotherapy were indeed effective with patients who have senile

depression, and the effect was greater than medication. This is in accordance with the results of clinical studies inside China and abroad. In the present study, it was also found that group integrated psychotherapy combined with medication had a greater effect than group cognitive behavioral therapy combined with medication. The total HAMD scores after four weeks and eight weeks of parallel treatment were significantly different between the two groups ($p<0.05$), and after two weeks, four weeks and eight weeks of parallel treatment, total GDS scores between the two groups were also significantly different from each other ($p<0.05$). The difference of GDS total scores appeared earlier in the study, which could suggest that GDS was more sensitive on evaluating symptoms of senile depression. As for the dropout rates of two groups, the difference was also statistically significant. This indicates that group integrated psychotherapy can improve the treatment compliance of patients so that it reduces the dropout rate. After analyzing the reasons for dropping out, we found that the reasons why patients dropped out in both groups were similar. The reason why the experiment group had a smaller dropout rate in the present study was considered to be related to the individual interviews before the enrollment, the mental health education given to family members, the psychological support from the family and the content of treatment. Group cognitive behavioral therapy helps patients focus on their own psychological and mood problems, or their cognitive and behavioral deviations, and it helps patients improve the ability to control their symptoms and stabilize their emotions by having them learn and master new cognitive behavioral techniques and giving them proper intervention. During the whole treatment process, patients are required to adhere to the principles of active participation and self-help.^[15] Cognitive behavioral therapy can help patients learn about and understand depressive disorder and their own mental states, and help them gain a sense of identity and experience comfort and a sense of belonging through sharing feelings and experiences with other group members. It can specifically lead patients to recognize their own automatic negative thoughts and cultivate new ways of thinking, so that patients can correct their cognitive distortions, build new coping mechanisms, cognitive patterns and

Table 3. Comparisons between the two groups' dropout rates (n,%)

Groups	Number of people who dropped out	Number of people who did not drop out	χ^2	<i>p</i>
Experiment group (N=50)	7	43	4.57	0.032
Control group (N=50)	16	34		

behavioral styles. These strategies in turn can alleviate and eliminate negative emotions like depression.^[16,17] The group integrated psychotherapy employed in the present study was developed and improved on the foundation of group cognitive behavioral therapy. It was integrated with interviews and health education before patients received group therapy, various group therapy content including dialectical behavior, acceptance and mindfulness decompression methods. It can significantly increase the motivation of patients to actively participate in therapy.

4.2 Limitations

The present study is still in the early stages of exploration. We mainly continued to use CBT content from past groups, as group integrated psychotherapy methods were developed. However we did discover new treatment factors and combined the group schedule with the hospitalization cycle. A relatively complete model was formed and proved to be effective and feasible in clinical trials. Since the sample size is relatively small in the present study, it is necessary to expand the sample size and repeat the study to verify it in the future. Additionally, the content and pattern of the treatment needs to be further improved. We also hope that other medical institutions of the same kind as ours will continue to apply the therapy used in the present study, to verify whether the results of the present study are affected by the region or not. In order to keep revising and improving the pattern of group integrated psychotherapy, our center will also continue to research this topic.

4.3 Implications

Currently, the morbidity rate for depressive disorder increases every year, and it has become a major issue in today's society. Because the causes of depression can be so multifaceted, pharmacological treatments alone are not ideal. Therefore, psychotherapy plays an important role in the treatment of depressive disorder. Among psychotherapies, group therapy has unique advantages. It can not only promote interactions, communications, and learning among patients, but also at the same time solve the current shortage of psychotherapists in China to a certain extent. Hence, it is a win-win situation where costs are reduced while curative effect

is improved. Currently, a great deal of research outside of China has reported that group cognitive behavioral therapy is indeed effective in treating depressive disorder. In China, Qian Liu and colleagues^[18] conducted a study of short-term group cognitive behavioral therapies for depression and found that short-term cognitive behavioral therapy could significantly improve clinical effect. Enxia Wang and colleagues^[19] conducted a study of the effect of group cognitive behavioral therapy on geriatric depression, and the results also indicated that group cognitive behavioral therapy could improve the clinical effect. Therefore, there has been common agreement on the curative effect of group cognitive behavioral therapy on depression. However, group cognitive behavioral therapy still has shortcomings, such as high dropout rate, and unclear long-term efficacy.

The group setting of the present study was mainly based on the research plan of Australian Doctor Tianbao Huang's group cognitive behavioral therapy. However it was combined with elements culturally appropriate to the setting it was conducted in. In order to localize imported techniques to make the therapy easier for patients to understand and accept, we made adjustments to the time and setting parameters of therapy. Our version of integrated group psychotherapy was combined with other psychotherapies and aspects of Chinese culture. Not only does it involve changes to the CBT based content, it also included interviews before therapy, health education for the family members, the whole process of psychotherapy, pre-discharge education, and regular follow-ups after discharge. This is also the research direction that we are currently working on, and we hope that we can explore a set of relatively complete group integrated psychotherapy models with high adaptability and local characteristics so that it can be applied widely.

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Conflicts of interest statement

The authors declare no conflict of interest related to this manuscript.

Informed consent

All participants provided written informed consent to participate in this study.

Ethical approval

This study was approved by the Ethics Committee of the Zigong Mental Health Center in Sichuan Province, China.

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Authors' contributions

Bo Liu: psychological interviews and enrollment, psychotherapy, data analysis, paper writing;

Youguo Tan: study design, guidance for psychotherapy, quality control, supervision of the writing;

Duanfang Cai: study coordination, quality control;

Yudiao Liang: psychological assessments;

Ruini He: psychological interviews and enrollment, psychotherapy;

Chengwen Liu: conducting the psychotherapy;

Yong Zhou: psychological assessments;

Cuihua Teng: psychotherapy

团体整合心理治疗对老年抑郁症患者临床疗效研究

刘波, 谭友果, 蔡端芳, 梁玉雕, 何蕊妮, 刘成文, 周勇, 滕翠花

背景: 相关研究表明团体认知行为治疗对抑郁症患者确有疗效, 但存在较高脱落率的问题, 本研究在于探讨团体整合心理治疗模式, 在保证疗效的基础上, 为减少脱落率提供新的方法。

目的: 探讨团体整合心理治疗对老年抑郁症的临床疗效影响。

方法: 将 100 例老年抑郁症患者随机分为研究组 (n=50) 和对照组 (n=50), 研究组给予常规药物治疗联合团体整合心理治疗, 对照组给予常规药物治疗联合团体认知行为治疗。两组分别在治疗前、治疗 2 周、4 周、8 周末采用汉密尔顿抑郁量表 (HAMD-24) 及老年抑郁量表 (GDS-15) 进行评分。

结果: 组内比较, 两组治疗后的 HAMD 总分和 GDS 总分均低于治疗前, 且差异具有统计学意义 ($F=102.50$, $p=0.001$; $F=55.94$, $p<0.001$); 组间比较, 两组的 HAMD 总分在治疗后 4 周、8 周末比较差异均有统计学意义 ($F=3.82$, $p=0.021$); 两组的 GDS 总分在治疗后 2 周、4 周、8 周比较异常均有统计学意义 ($F=4.49$, $p=0.009$); 研究组脱落 7 例, 对照组脱落 16 例, 脱落率差异有统计学意义 ($\chi^2=4.57$, $p=0.032$)。

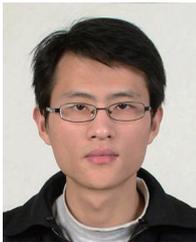
结论: 药物治疗联合团体整合心理治疗可显著提高老年抑郁症患者临床疗效, 改善患者治疗依从性, 减少治疗脱落率。

关键词: 团体整合心理治疗; 团体认知行为治疗; 老年抑郁症

Reference

- Tang Z, Wu TC, Li M. [Efficacy of cognitive-behavioral group therapy in patients with major depression in inpatient department]. *Zhongguo Lin Chuang Xin Li Xue Za Zhi*. 2011; **21**(6): 398-399. Chinese
- Pan M, Zhang SQ, Lv LX, Yuan FQ, Pan WM, Xu YN, et al. [The effect of different antidepressant drugs on the elderly patients with first - episode depression in half year]. *Zhongguo Lao Nian Xue Za Zhi*. 2016; **36**(11): 2640-2643. doi: <http://dx.chinadoi.cn/10.3969/j.issn.1005-9202.2016.11.033>
- Zhou PY, Wu ZQ, Xie ZQ, Wang XH, Du ZY, Shao W, et al. [New progress in prevention and treatment of elderly depression]. *Zhongguo Lao Nian Xue Za Zhi*. 2012; **32**(19): 4359-4361. doi: <http://dx.chinadoi.cn/10.3969/j.issn.1005-9202.2012.19.135>
- Zhang N, Wang C. [Group Cognitive Behavior Therapy on Depression]. Beijing: People's Medical Publishing House; 2012
- Tang YH. [Hamilton Depression Scale]. *Shanghai Arch Psychiatry*. 1984; **2**(2): 61-64. Chinese
- Mao RH, Chen CX, Li D, Li SX, Zhang M. [Intervention effect of BrainHQ visual training on depressive symptom in patients with post stroke depression]. *Zhong Hua Xing Wei Yi Xue Nao Ke Xue Za Zhi*. 2015; **24**(12): 1097-1099. Chinese. doi: <http://dx.chinadoi.cn/10.3760/cma.j.issn.1674-6554.2015.12.011>
- Brink TL, Yesavage JA, Lum O. Screening tests for geriatric depression. *Clin Gerontol*. 1982; **1**(1): 37-44
- Yesavage JA, Brink TL, Rose TL. Development and validation of a geriatric depression screening scale.: a preliminary report. *J Psychiatry Res*. 1982-1983; **17**(1): 37-49
- Zhang H, Xu WT, Dai B. [The reliability and validity of the depression scale in the elderly in Sichuan]. *Zhongguo Lao Nian Xue Za Zhi*. 2016; **36**(14): 3548-3550. Chinese. doi: <http://dx.chinadoi.cn/10.3969/j.issn.1005-9202.2016.14.092>

10. Cuijpers P, Dekker P, Hollon SD, Andersson G. Adding psychotherapy to pharmacotherapy in the treatment of depressive disorders in adults: a meta-analysis. *J Clin Psychiatry*. 2009; **70**(9): 1219–1229. doi: <http://dx.doi.org/10.4088/JCP.09r05021>
11. Imel ZE, Malterer MB, McKay KM, Wampold BE. A metaanalysis of psychotherapy and medication in unipolar depression and dysthymia. *J Affect Disord*. 2008; **110**(3): 197–206. doi: <http://dx.doi.org/10.1016/j.jad.2008.03.018>
12. Petersen TJ. Enhancing the efficacy of antidepressants with psychotherapy. *J Psychopharmacol*. 2006; **20** (3suppl): 19–28. doi: <http://dx.doi.org/10.1177/1359786806064314>
13. Fava GA. The decline of pharmaceutical psychiatry and the increasing role of psychological medicine. *Psychotherpsychosom*. 2009; **78**(4): 220–227. doi: <http://dx.doi.org/10.1159/000214443>
14. Zhang BY, Ding XF, Lu WH, Zhao J, Lv QY, Yi ZH, et al. [Effect of group cognitive-behavioral therapy on the quality of life and social functioning of patients with mild depression]. *Shanghai Arch Psychiatry*. 2016; **28**(1): 18–27. doi: <http://dx.doi.org/10.11919/j.issn.1002-0829.215116>
15. Thimm JC, Antonsen L. Effectiveness of cognitive behavioral group therapy for depression in routine practice. *BMC Psychiatry*. 2014; **14**: 292
16. Conroy DA, Ebben MR. Referral practices for cognitive behavioral therapy for insomnia: a survey study. *Behav Neurol*. 2015; **2015**: 819402. doi: <http://dx.doi.org/10.1155/2015/819402>
17. Brown GK, Ten HT, Henriques GR. Cognitive therapy for the prevention of suicide attempts: a randomized controlled. *JAMA*. 2005; **294**(5): 563–570
18. Liu Q, Cao SX, Pang JY, Deng P, Li HF. [Effect of short-term group cognitive behavioral therapy in patients with major depressive disorder]. *Zhong Hua Xing Wei Yi Xue Yu Nao Ke Xue Za Zhi*. 2016; **25**(10): 896–899. Chinese. doi: <http://dx.chinadoi.cn/10.3760/cma.j.issn.1674-6554.2016.10.007>
19. Wang EX, Li CF, Liu YH. [Effect of group cognitive behavior therapy on senile depression]. Annual Meeting of the geriatric psychiatry group of China Mental Health Association Annual mental health Specialized Committee twelfth annual meeting, Zhejiang rehabilitation medicine sleep disorders academic year of Specialized Committee annual meeting and Zhejiang Provincial Medical Association Psychiatric Association; 2015. p: 482–484. Chinese



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