

Analysis of Influencing Factors of Medication Compliance in Discharged Depressive Patients and Recurrence Situation

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ABSTRACT

Objective: To analyze the influencing factors of medication compliance in discharged depressive patients and the recurrence situation of depression.

Methods: 135 cases of discharged depressive patients during July 2011 and July 2014 were selected and followed up to investigate their general demographic data, hospitalization treatment, related situation after discharge, family and social support situation, recurrence situation, etc. In fact, survey data of total 120 cases were acquired, and they were divided into the compliance group (56 cases) and the non-compliance group (64 cases) as per the conditions of medication administration following the doctor's advice, spontaneous medication reduction, intermittent medication and medication discontinuance.

Results: (1) No statistical difference appeared between two groups in gender and age ($P > 0.05$) and a statistical difference occurred between them in education and marriage ($P < 0.05$); (2) Depression recurred in 76 cases and did not recur in 44 cases among 120 cases. There were 15 cases with recurrence in the compliance group (26.7 %) and 61 cases with recurrence in the non-compliance group (93.8 %). The difference was statistically significant ($P < 0.05$). (3) Logistic regression analysis showed that the education level, family's attitude toward medication, medication duration, dosage, the ability to work and recurrence situation were the direct factors affecting the medication compliance in the depressive patients.

Conclusion: To strengthen the publicity of taking medicine per the doctor's advice and focus on improving the family environment and the quality of medical treatment are the keys to improving the discharged medication compliance in depressive patients.

Key Words: Medication Compliance; Recurrence of depression; Influencing Factors



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The incidence of depressive disorders increases also with the acceleration of pace of life and the escalation of working pressure in the modern society. The depressive patients are often subject to a repeated recurrence and the recurrence rate is high. It is very important in the treatment of depression to consolidate the treatment effect and prevent the recurrence through the medication treatment [1,2]. However, many factor may affect the medication

compliance. In this paper, the survey data of 120 cases of discharged patients were analyzed to discuss the influence of medication compliance on the recurrence of the depression.

MATERIALS AND METHODS

1. Selection of General Information

A total of 135 cases of unipolar or bipolar depressive patients discharged from our hospital in July 2011 - July 2014 were selected. Inclusion criteria: 1) full compliance with the diagnostic criteria of American DSM- IV (Diagnostic and Statistical Manual of Mental Disorders) for onset of depressive disorders; 2) Outpatients for the first incidence of depression, with no history of previous medication; 3) Diagnosis by a physician entitled by associate professor or above; and 4) signing of informed consent by patient and family member. Exclusion criteria: 1) patients concurrently suffered from other severe disease with medication adherence or history of drug allergy; 2) patients associated with other mental disorders; and 3) women in pregnancy or lactation. There were 56 male patients and 64 female patients, aged of 18 - 72 years, with mean age of 39.35 ± 13.58 years and disease course of 2 - 22 years (all for first incidence), averaged 52.96 ± 66.36 months.

2. Methods

The Questionnaire for Discharged Medication Compliance in Depressive Patients was prepared to investigate the

selected patients of 135 cases discharged from our hospital and their family members from March 1, 2015 to August 1, 2015. Survey data of total 120 cases were acquired, and 15 cases lost to follow up. The main reasons for the losing of follow-up include losing & change of contacts of the patients or their wish for confidentiality of personal information, etc. Therefore, these 15 cases of patients were not analyzed in this study because we could not determine their difference of clinical characteristics due to the lack of the specific information.

The investigation contents mainly include the general demographic data (name, age, gender, education level, marriage, etc.), hospitalization treatment, related medication situation after discharge, family and social support situation, recurrence situation, etc. The follow-up visit is the main survey method, including, telephone interviews, and home visits. They were divided into the compliance group (56 cases, following the doctor's advice) and the non-compliance group (64 cases, spontaneous medication reduction, intermittent medication and medication discontinuance) as per the condition of medication administration.

3. Statistical Method

The measurement data were subject to t text and the attribute data were to Chi-square test (χ^2). $P < 0.05$ means that the differences were statistically significant. Eventually, the logistic regression analysis was performed by taking medication compliance as a dependent variable and the related factors as an independent variable.

RESULTS

1. Comparative Analysis of General Demographic Data between Two Groups

Through the analysis, the differences of two groups of patients in gender and age were not statistically significant ($P > 0.05$); and the differences in marriage situation and education level were statistically significant ($P < 0.05$).

Table 1 Comparison of General Demographic Data between Two Groups

Group	Case	Age	Gender		Marriage				Education Level			
			Male	Female	Single	Remarried	Divorce	Widowed	Illiteracy	Primary & junior high school	Senior middle school	College or above
Compliance Group	56	36.88±11.28	30	26	11	34	3	8	3	38	10	5
Non-compliance Group	64	41.43±15.23	28	36	5	30	11	18	20	32	4	8
χ^2/t		1.837		1.15			10.43				15.85	
P		> 0.05		> 0.05			< 0.05				< 0.05	

2. Effect of Medication Compliance on Recurrence of Depression

The survey data showed that there were 15 cases with recurrence (26.7 %) and 41 cases without recurrence (73.3

%) in the compliance group, and the difference was statistically significant ($P < 0.05$). and there were 61 cases with recurrence (93.8 %) and 3 cases without recurrence (6.2 %) in the non-compliance group, and the difference was statistically significant ($P < 0.05$).

Table 2 Effect of Medication Compliance on Recurrence of Depression

Recurrence Situation	Case	Compliance Group n=56		Non-Compliance Group n=64	
		Following doctor's advice	Spontaneous Medication Reduction	Intermittent Medication	Medication Discontinuance
Recurred	76	15 (26.7 %)	14 (21.9 %)	22 (34.3 %)	25 (39.0 %)
Not recurred	44	41 (73.3 %)	0	1 (1.5 %)	2 (3.1 %)
P		< 0.05	< 0.05	< 0.05	< 0.05

3. Logistic Regression Analysis of Related Factors of Medication Compliance

Sixteen factors probably affecting the medication compliance of depressive patients were quantified, including, gender X1, age X2, education level X3, Marriage X4, insight X5, discharged curative effect X6, patient's attitude to medication X7, family history X8, family economic status X9, family and social support X10, treatment time X11, dosage X12, hospitalization times X13, tolerance against side effects X14, working ability X15 and recurrence situation X16. Taking the medication compliance as a dependent variable, 16 independent variables were introduced using stepwise method to calculate $\beta\chi$. The factors affecting the medication compliance were education level X3, family and social support X10, medication duration X11, dosage X12, working ability X15, and recurrence situation X16, respectively.

DISCUSSION

Depression has become an increasingly serious public health problem [3-5]. As a repeatedly recurrent mental illness, patients shall still receive the long-term drug treatment after they are discharged from the hospital. However, 30 % - 60 % patients currently do not follow the doctor's advice to take the medications, leading to a high recurrence rate of the depressive disorders. The medication

compliance issues often become the key factors affecting the recurrence of depressive disorders, so the key factors of preventing the recurrence of depressive disorders are to improve the treatment adherence of antidepressant drugs [6,7]. The treatment compliance mainly refers to that the patient medication, lifestyle and other behaviors shall be consistent with the health education or medical advice [8].

The survey results conclude that the medication compliance of the patients with a high education level and stable marriage is better, and the recurrence rate of the depression for the patients with a good medication compliance is relatively low. Thus, it is very important to maintain the treatment effect of the depressive disorders with a sufficient amount of drugs [9]. The survey data also showed that the family and social support as well as the patient's working ability were also associated with the medication compliance. To create a good and harmonious family atmosphere and strengthen the communications between the patients and the relatives, friends, classmates and colleagues are all the important factors to improve the medication compliance of the patients so as to reduce the recurrence of depression. In this study, it was found that the effect of medication compliance directly affected the recurrence rate of the depression, and the Logistic regression analysis results also showed that the recurrence of depression would also affect the medication compliance. They are inter-determined. So, great importance shall be attached to the improvement of medication compliance and the reduction of depression recurrence [10].

In summary, the medication compliance of discharged depressive patients is closely related to the recurrence of depression. This indicates that, as to the treatment of depressive disorders, it is required to not only improve and guarantee the medical level, but also pay attention to and publicize the importance of the patients to take

publicize the importance of the patients to take the medications following the doctor's advice, repeatedly tell the patient's families the importance of the family and social supports, and help to improve the mental adaptive ability of the patients so as to let them to return to and adapt to the society soon.

REFERENCES

1. Pei Zhang, Mian Xia. Antidepressants adherence and its contributing factors for patients with depression. *Advances In Psychological Science*. 2015;06:1009-1020.
2. Yang Yang, Changqing Hu, Jing Chen, et al. Compliance and related factors of the psychiatric outpatients. *China Medical Herald*. 2015;23:165-169.
3. Yang Lv, Zheng Li, Meiyang Han, Gen Cheng, Fengrong An. Factors associated with medication adherence among elderly outpatients with depressive disorder. *China Journal of Nursing*. 2015;10:1203-1206.
4. Guangming Feng, Junsheng Tian, Lizeng Zhang, et al. Advances in study of medication adherence in patients with depression. *Journal of Shanxi Medical University*. 2013; 04:313-316.
5. Shanshan Gu, Wei Qu, Junwei Guo, et al. Influencing factors of medication compliance of outpatients with first episode depression in a general hospital. *Journal of Third Military Medical University*. 2014; 11:1121-1124.
6. Yiping Qian, Changfeng Ma, Kangying Gu. Effect evaluation of telephone interviews intervention to the outpatients with depression. *Journal of Nurse Training*. 2013; 18:1711-1714.
7. Jikun Wang, Xudong Zhao. Study on relationship between depression and family function. *Journal of International Psychiatry*. 2012; 01-21-23.
8. Wei Qu, Shanshan Gu. New progress in treatment study of depressive disorders. *Journal of Third Military Medical University*. 2014;11:1113-1117.
9. Qinyan Yang, Min Zhou, Chunqiong Luo, et al. Advances in diagnostic research of depression. *Journal of International Psychiatry*. 2014; 02:100-102.
10. Caihong Kong. Application evaluation of whole course management model in depression. *Journal of Traditional Chinese Medicine Management*. 2016; 01:53-54.