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# Bibliotherapy for Chinese Patients with Depression in Rehabilitation

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#### 1. Introduction

This work was aimed to explore the efficacy of bibliotherapy to the coping method and social support of patients with depression in rehabilitation, to explore influencing factors on efficacy of bibliotherapy for patients with depression in rehabilitation. A total of 362 patients with depression were randomly assigned to study group with bibliotherapy (n=184) and control group without bibliotherapy (n=178) for 4 weeks. Our results as following, at the end of study, the differences of decreased scores were significant in the two groups on retardarce factors, hopeless factors and total score of HAMD. There were significant differences on some factor scores of CMI and SSRS between after and before study in study group. In study group, there were 138 patients in efficacy group and 46 patients in inefficacy group. Stepwise regression analysis showed that the main factors that influenced the efficacy of bibliotherapy were high compliance, low age, good family economic status, high education, high using-support degree factor scores in SSRS, high recourse factor scores in CMI, without somatic disorders. In conclusion, the bibliotherapy is an effective adjutant method of rehabilitation which could improve social functions of patients with depression. The efficacy of bibliotherapy is associated with bio-psycho-social factors.

Bibliotherapy is therapy in which patients read under the guidance of professionals to cure diseases such as morbus internus and mental disorders [1]. As a novel interventional therapy for patients with depression during the rehabilitation period, the efficacy of bibliotherapy has been confirmed [2-5]. In this study, we modified the style, content, and implementation mode of traditional bibliotherapy to match Chinese depressive patients and investigated the efficacy of bibliotherapy as well as the factors that influence depressive symptoms, coping style, and social support.

# 2. Subjects and methods

#### 2.1 Subjects

Subjects included patients admitted to our hospital between January, 2005, and January, 2008, who were diagnosed as having psycholepsy of mood disorder in accordance with the following inclusion criteria: (1) International Statistical Classification of Diseases and Related Health Problems (ICD-10) distributed by World Health Organization; (2) 18-35 points on the 24-item Hamilton Depression Scale (HAMD) [2], namely, these patients were

in the state of slight to moderate depression; (3) attending junior middle school or over; (4) gave informed consent to subjects and their family members, or legal guardians or agents. The exclusion criteria included the following: (1) alcohol and substance abuse or dependence; (2) obvious risks of impulsivity, self-inflicted wounds, and suicide; (3) undergoing MECT (modified electroconvulsive therapy) 6 months before inclusion; (4) myocardial infarction, angina, heart failure, severe hepatocirrhosis, renal failure, severe diabetes, aplastic anemia, angle-closure glaucoma, severe somatic diseases, organic diseases, and other diseases that may influence assessments in the trials; (5) a history of epilepsy and eclampsia; (6) participating in clinical trials for other drugs within the last month; (7) metabolic and/or other factors that may influence reading.

Discontinuation criteria included the following: (1) lack of efficacy; (2) withdrawal of informed consent; (3) noncompliance; (4) lost to follow up; (5) other harmful events that may influence the outcomes.

		Study group (n=184)	Control group (n=178)	T or X <sup>2</sup>	Р
Age (years)		36.22±10.7	37.45±9.61	-0.42	0.676
Sex	Male	62(33.70)	59(33.15)	0.01	0.912
Sex	Female	122(66.30)	119(66.85)	0.01	0.912
Age of diagnosis (years)		28.74±6.92	27.86±8.60	0.38	0.708
Length of illness (years)		7.48±6.05	9.59±8.02	-1.00	0.323
Times of hospitalization		3.83±2.04	4.18±2.20	-0.56	0.576
HAMD total scores		±	±		
Completed rate	Completed	184(91.09)	178(88.56)	0.71	0.401
Completed rate	Uncompleted	18(9.91)	23(11.44)	0.71	0.401
	Lack of efficacy	5(27.78)	6(26.09)		
Reasons for	Withdrawal of consent	4(22.22)	5(21.74)		
discontinuation	Lost to follow-up	4(22.22)	4(17.39)		0.990
	Noncompliance	2(11.11)	3(13.04)		
	Other	3(16.67)	5(21.74)		

Notes: (1) the numbers in the parenthesis are the constituent ratios (%); (2) "-",  $\chi^2$  value indicates Fisher precise probability  $\chi^2$ -test.

Table 1. Demographic and clinical features as well as trial completion rate.

In total, 403 patients were included and randomized into trial and control groups. The trial group included 202 patients, with 18 cases discontinued, leaving 184 completed cases (91.09%) aged of 22-51 years old. The age of preliminary diagnosis for these patients was 20-44 years, the length of illness was 1-25 years, and patients were admitted 1-7 times. The

control group included 201 patients, with 23 cases discontinued leaving 178 completed cases (88.56%) aged 20-55 years. The age of preliminary diagnosis was 17-45 years, the length of illness was 1-26 years, and patients were admitted 1-8 times. Table 1 showed the detailed information for age, sex, age of diagnosis, length of illness, numbers of hospitalizations, demographic characteristics, such as HAMD scores, CMI scores, and SSRI scores, clinical features, and completion rates of trials.

# 3. Reading location

The reading room of our Mental Sanitary Center is well-suited for this study. The facility can accommodate 80 individuals and is equipped with internal facilities, many types of books, and multimedia facilities, such as cable television, a video recorder, and a VCD player.

# 4. Styles of bibliotherapy

Bibliotherapy utilized books, multimedia assisted lectures and television programs, and communications and symposia. Books consisted of (1) specialized books and popular science readings related to medical science, psychology, and mental science, such as Common Psychological Issues Management, Control of Unhealthy Emotion, Smoking Harm, Dietary & Health, and magazine of Mental Medicine, (2) readings related to current events and politics, such as Guangming Daily, Health Paper, Qilu Evening Paper, and World Perspectives, (3) scientific recreational readings related to science progress, interpersonal relationships, and human affections, such as Reader Digest, Family Health, and Out of Eight Hours, (4) relaxed readings related to mood adjustment and relaxation, such as celebrities biographies, interesting matters in life, short tales, novella, and cartoon and jokes.

Multimedia assisted lectures and television programs included video tapes, lectures, and internet images in which the contents consisted of hospital summaries, characteristic department introductions, common somatic diseases introduction, and pathogenesis, onset states, clinical symptoms, classification, disease course, and prognosis and treatment strategies of psychological and mental diseases. In addition, multimedia assisted lectures and television programs included television programs related to popular science, such as Lectures Room, Probe and Discovery, and Household Doctor in which the contents contained some professional knowledge of medical science related to somatic diseases, psychological problems, and mental disorders and also extended to life philosophy and manners of conducting oneself.

Communications and symposia were organized and convened regularly by professionals after the patients underwent a period of bibliotherapy. Through informal discussions and opinion exchanges, the patients shared relevant knowledge, senses, and viewpoints aroused by readings to dissolve misunderstandings.

# 5. Implementation mode

During the period of trials, drug treatment was conducted by clinicians and was not influenced by the trials. The subjects were randomized into groups with 9 to 12 individuals in each group. Members of each group underwent bibliotherapy every day. The length of time reading each day was 2 (or 1) hours and consisted of a free-reading

period for 40 minutes and a communication period (one group is one unit) for 20 minutes. Those who learned from the readings well and had profound and real senses after reading acquired certain appraisals and rewards. Groups exchanged styles of bibliotherapy, such as books, lectures, TV programs, and symposia. The total period of bibliotherapy lasted for 30 days.

Missionaries were responsible for keeping order and controlling the trial process. In addition, missionaries provided certain assistances to the patients. For example, when professional issues could not be solved through communication among the patients, missionaries could explain and guide in an appropriate way. Also, when there was no relevant materials to meet the needs of reading, missionaries could provide materials through internet searches.

The control group patients underwent simple healing therapy that did not restrict or control the books, style, time, place, and mode of readings. The total period of control therapy lasted for 30 days.

#### 6. Research tools

The general information scale was used, which consisted of items such as sex, age, length of illness, level of education, family history of depression, number of depression onset occurrences, number of hospitalizations, family financial status, complications from psychotic symptoms, suicide history, complications from chronic somatic diseases, type of depression onset, and therapeutic compliance. In addition, we used the HAMD [6], compiled by Hamilton, which consisted of 24 items. A total HAMD score over 17 points indicated depressive symptoms with high reliability and validity. HAMD scores decreasing by > 75% indicated healing, scores decreasing by  $\geq$  50% and  $\leq$  75% indicated remarkable advance, scores decreasing by  $\geq$  25% (containing healing, remarkable advance, and advance) indicated effectiveness, and scores decreasing by  $\leq$  25% indicated ineffectiveness. The Coping Methods Inventory (CMI) [7] was used to assess the individual coping styles, which consisted of 66 items and 6 factors (problems-solving, self-reproach, recourse, delusion, wincing, and rationalization). We also used the Social Support Rating Scale (SSRS), compiled by Xiao [8], which consisted of 10 items and 3 factors (subjective support, objective support, and availability of support) and had the high reliability and validity.

#### 7. Research methods

At baseline, the included patients were evaluated using the general information scale, HAMD, CMI, and SSRS. After bibliotherapy, they were evaluated again using HAMD, CMI, and SSRS. Decreasing HAMD scores were indicators for the efficacy assessment, based on which the patients were divided into effective and ineffective groups. The data underwent single factor analysis among groups and subsequent multivariate progressive repression analysis.

# 8. Statistics

Statistical analyses, such as t-test, chi-squared test, and multivariate progressive regression analyses, were conducted using the software Statistical Analysis System (SAS) 13.0.

# 9. Results

# 9.1 HAMD scores

To investigate the amelioration of depression, the baseline factor scores or HAMD total scores and scores after intervention in the trial and control groups were compared both within and between groups, as shown in Table 2. The results showed that the factor scores

Factors	Groups	Case No.	Baseline	After intervention	T value	P value
	Trial	184	3.57±1.53	1.26±0.96	7.13	0.000
Somatization of anxiety disorder	Control	178	3.86±1.67	2.05±1.40	6.40	0.000
	T value		-0.63	-2.20		
	P value		0.535	0.033		
	Trial	184	1.48±1.47	0.87±1.01	2.95	0.007
Rody woight	Control	178	1.55±1.34	$0.86 \pm 0.83$	3.58	0.002
Body weight	T value		-0.16	0.02		
	P value		0.874	0.983		
	Trial	184	4.74±1.94	1.91±1.65	6.38	0.000
Cognitive disender	Control	178	4.86±1.75	2.95±1.76	6.86	0.000
Cognitive disorder	T value		-0.23	-2.05		
	P value		0.822	0.046		
	Trial	184	1.74±1.01	0.57±0.59	5.72	0.000
Diurnal chango	Control	178	1.86±1.39	0.59±0.80	6.06	0.000
Diurnal change	T value		-0.35	-0.12		
	P value		0.732	0.902		
	Trial	184	3.17±1.78	1.39±1.23	6.51	0.000
Retardation	Control	178	3.14±1.75	2.18±1.22	4.28	0.002
Retardation	T value		0.071	-2.16		
	P value		0.943	0.036		
	Trial	184	1.57±1.12	0.57±0.73	4.59	0.000
Sleep disorder	Control	178	1.73±0.99	$1.09 \pm 0.75$	3.52	0.000
Sieep disorder	T value		-0.51	-2.39		
	P value		0.610	0.022		
	Trial	184	4.61±1.53	1.65±1.07	9.71	0.000
Sonso of desparation	Control	178	4.73±1.45	3.45±1.26	4.97	0.000
Sense of desperation	T value		-0.27	-5.17		
	P value		0.791	0.000		
	Trial	184	20.87±6.07	8.22±3.25	11.33	0.000
Total scores	Control	178	21.73±5.18	13.18±3.94	11.23	0.000
10141 500165	T value		<b>-</b> 0.51	-4.63		
	P value		0.614	0.000		

Table 2. HAMD scores in trial and control groups at baseline and after bibliotherapy (mean  $\pm$  SD).

and HAMD total scores of anxiety somatization, body weight, cognitive disorder, diurnal change, retardation, sleep disorder, and sense of desperation in both the trial and control groups decreased significantly (P < 0.05 for all) after intervention compared with baseline. After intervention, factor scores and HAMD total scores of anxiety somatization, cognitive disorder, retardation, sleep disorder, and sense of desperation in the trial group were significantly lower than those in control group (P < 0.05 for all). These results indicate that the depressive symptoms of patients in both the trial and control groups were remarkably ameliorated after the corresponding bibliotherapy, although the patients in trial group improved significantly more.

# 9.2 Decreasing HAMD scores

Decreasing HAMD scores are equal to baseline scores minus scores after intervention. To further investigate the amelioration of depression, we compared decreasing factor scores or HAMD total scores between the trial and control groups, as shown in Table 3. The results showed that decreasing HAMD scores of retardation, sense of desperation, and total scores in trial groups were significantly higher than those in control group (P < 0.05 for all), indicating that the amelioration of depression in trial groups was superior to that in control groups.

Factors	Groups	Case No.	Mean ± SD	T value	P value
Somatization	Trial	184	2.30±1.55	1.13	0.266
of anxiety disorder	Control	178	1.82±1.33	1.15	0.200
Rody woight	Trial	184	0.61±0.99	-0.26	0.706
Body weight	Control	178	0.68±0.89	-0.26	0.796
Comitive disarder	Trial	184	2.83±2.13	1.74	0.090
Cognitive disorder	Control	178	1.91±1.31	1./4	0.090
Diumal ahan sa	Trial	184	1.17±0.98	-0.337	0.738
Diurnal change	Control	178	1.27±0.99	-0.337	0.736
Retardation	Trial	184	1.78±1.31	2 22	0.024
Retardation	Control	178	0.95±1.05	2.33	0.024
Class disarder	Trial	184	1.00±1.04	1 20	0.200
Sleep disorder	Control	178	0.64±0.85	1.28	0.208
Canas of desparation	Trial	184	2.96±1.46	4.21	0.000
Sense of desperation	Control	178	1.27±1.20	4.21	0.000
Total agamas	Trial	184	12.65±5.36	2.01	0.004
Total scores	Control	178	8.55±3.57	3.01	0.004

Table 3. Decreasing HAMD scores in trial and control groups at baseline and after bibliotherapy (mean ± SD).

#### 10. CMI scores

To investigate the improvement of coping styles, CMI factor scores in both the trial and control groups were compared between before (baseline) and after intervention, as shown in

Table 4. The results showed that factor scores of problem-solving, self-reproach, and recourse in the trial group improved significantly (P < 0.05 for all) after intervention, while those scores in the control group showed no significant differences (P > 0.05 for all) between before and after intervention. These findings indicate that the improvement of coping styles in the trial group was superior to that in the control group.

Factors	Groups	Case No.	Baseline	After intervention	T value	P value
D 11 1 .	Trial	184	0.52±0.51	0.87±0.55	-2.58	0.017
	Control	178	0.50±0.51	0.64±0.58	-1.82	0.083
Problem-solving	T value		0.14	1.39		
	P value		0.887	0.173		
	Trial	184	0.78±0.60	0.48±0.59	2.61	0.016
Calf nameach	Control	178	0.82±0.80	0.73±0.77	1.00	0.329
Self-reproach	T value		-0.17	-1.22		
	P value		0.866	0.229		
	Trial	184	0.48±0.59	$0.78 \pm 0.60$	-3.10	0.005
Recourse	Control	178	0.50±0.67	0.55±0.67	-0.30	0.771
Recourse	T value		-0.12	1.25		
	P value		0.909	0.218		
	Trial	184	0.57±0.66	0.48±0.59	1.45	0.162
Delusion	Control	178	0.59±0.73	0.50±0.60	1.45	0.162
Defusion	T value		-0.12	-0.12		
	P value		0.902	0.903		
	Trial	184	0.65±0.71	0.57±0.66	1.45	0.162
Winsing	Control	178	0.64±0.79	0.55±0.74	1.00	0.329
Wincing	T value		0.07	0.10		
	P value		0.944	0.925		
Rationalization	Trial	184	0.13±0.34	0.17±0.39	-1.00	0.328
	Control	178	0.18±0.50	$0.23 \pm 0.43$	-0.44	0.665
	T value		-0.40	-0.44		
	P value		0.689	0.663		

Table 4. CMI scores in trial and control groups at baseline and after bibliotherapy (mean ± SD).

#### 11. SSRI scores

To investigate the improvement of social support, SSRI factor scores for both the trial and control groups were compared between before (baseline) and after intervention, as shown in Table 5. The results showed that factor scores of objective support, subjective support, and availability of support in the trial group improved significantly (P < 0.05 for all) after

intervention, while those scores in the control group showed no significant differences (P > 0.05 for all) between before and after intervention. These findings indicate that the improvement of social support in the trial group was superior to that in the control group.

Factors	Groups	Case No.	Baseline	After intervention	T value	P value
	Trial	184	8.13±1.91	10.09±1.81	-4.38	0.000
	Control	178	8.27±2.00	8.41±2.04	-1.82	0.083
Objective support	T value		-0.24	2.93		
	P value		0.809	0.005		
	Trial	184	18.04±3.52	24.30±3.52	-9.24	0.000
	Control	178	18.41±3.66	19.59±3.54	-1.84	0.080
Subjective support	T value		-0.34	4.48		
	P value		0.734	0.000		
	Trial	184	7.04±1.67	10.04±1.85	-7.74	0.000
Availability of support	Control	178	6.91±1.90	7.32±1.96	<b>-</b> 1.90	0.071
	T value		0.25	4.80		
	P value		0.802	0.000		

Table 5. SSRI scores in trial and control groups at baseline and after bibliotherapy (mean ± SD)

# 12. Efficacy of bibliotherapy

The results showed that among 184 patients with depression during the rehabilitation period, 138 (75%) cases were effectively and 46 (25%) cases were ineffectively treated by bibliotherapy.

#### 13. Single factor analysis of bibliotherapy efficacy

To analyze the factors that influence the efficacy of bibliotherapy in patients with depression during the rehabilitation stage, various pieces of data collected at baseline were compared between groups effectively and ineffectively treated. These data included sex, age, age at diagnosis, length of illness, degree of culture, family history of depression, number of depression onset occurrences, number of hospitalizations, family financial status, complications from psychotic symptoms, history of suicide, complications from chronic somatic diseases, type of disease onset, and therapeutic compliance. In addition, we compared CMI factor scores for problem-solving, self-reproach, recourse, delusion, wincing, and rationalization. SSRS factor scores of subjective support, objective support, and availability of support were also compared, as shown in Table 6. The results revealed significant differences (P < 0.05 for all) between effectively and ineffectively treated groups with respect to sex, age, degree of culture, family history of depression, number of depression onset occurrences, family financial status, complications from chronic somatic diseases, type of disease onset, therapeutic compliance, CMI factor scores for problem-solving, self-reproach, and recourse. We also found significant differences between effectively and ineffectively treated groups with respect to SSRS factor scores of subjective support, objective support, and availability of support.

Factors	Items	Effective group (n = 138)	Ineffective group (n = 46)	X <sup>2</sup> or T value	P value
Cove	Male	26(18.84)	35(76.09)	V2-E1 02	0.000
Sex	Female	112(81.16)	11(23.91)	$X^2=51.02$	0.000
Age		31.32±9.51	38.09±8.80	T=2.48	0.017
Age of diagnosis		27.65±6.77	28.45±6.34	T=-0.41	0.684
Length of illness		6.96±4.63	8.14±5.44	T=-0.79	0.437
Degree of cultures	Junior and senior middle schools Higher school or over	43(31.16) 95(68.84)	27(58.70) 19(41.30)	X2=11.10	0.001
Family history of	Positive	37(26.81)	27(58.70)	X <sup>2</sup> =15.46	0.000
depression	Negative	101(73.19)	19(41.30)		
Times of depression onset		4.52±2.19	6.14±1.78	T=-2.71	0.010
Times of hospitalization		4.30±2.29	3.68±1.89	T=0.99	0.326
Family financial	Better	89(64.49)	13(28.26)	V2 10 00	0.000
status	Worse	49(35.51)	33(71.74)	X <sup>2</sup> =18.33	0.000
Complications of	Yes	46(33.33)	20(43.48)		
psychotic symptom	No	92(66.67)	26(56.52)	X2=1.54	0.214
Cuisidalista	Yes	54(39.13)	17(36.96)	Y2=0.07	0.702
Suicide history	No	84(60.87)	29(63.04)	$X^2=0.07$	0.793
Complications of	Yes	16(11.59)	22(47.83)		
chronic somatic disease	No	122(88.41)	24(52.17)	X <sup>2</sup> =27.64	0.000
Type of disease	Acute	39(28.26)	31(67.39)	V2 22 44	0.000
onset	Chronic	99(71.74)	15(32.61)	$X^2=22.41$	0.000
Therapeutic	Good	127(92.03)	25(54.35)	V2 0440	0.000
compliance	Bad	11(7.97)	21(45.65)	X2=34.10	0.000

Factors	Items	Effective group (n = 138)	Ineffective group (n = 46)	X <sup>2</sup> or T value	P value
	Problem- solving	0.60±0.49	0.22±0.42	T=4.76	0.000
	Self-reproach	0.92±0.68	0.54±0.69	T=3.23	0.001
CMI	Recourse	0.57±0.65	0.22±0.42	T=3.47	0.001
	Delusion	0.58±0.68	0.54±0.69	T=0.31	0.756
	Wincing	0.64±0.72	0.63±0.77	T=0.06	0.954
	Rationalization	0.14±0.39	0.17±0.49	T=-0.41	0.684
	Subjective support	8.17±1.92	7.41±2.21	T=2.22	0.028
SSRS	Objective support	18.20±3.52	16.79±3.75	T=2.30	0.023
	Availability of support	6.98±1.72	6.15±2.01	T=2.70	0.008

Note: the percentage is placed in the parenthesis.

Table 6. Single factor analysis on efficacy of bibliotherapy in the patients with depression during the rehabilitation stage

# 14. Multiple factor analysis of bibliotherapy efficacy

To analyze the role of bibliotherapy in factors that influence the efficacy of treatment of patients with depression in the rehabilitation stage, we conducted multivariate progressive regression analysis in which decreasing HAMD scores were dependent variables and the factors described above were independent variables. Data were evaluated according to the statistics shown in Table 7. Regression analysis revealed a total of 7 factors included in the regression formula at the significant level  $\alpha$  = 0.05, with the factor order based on absolute values of standard regression coefficients (namely, degree of contribution). The factor order was compliance > age > family financial status > degree of culture > SSRS factor scores of availability of support > CMI factor scores of recourse > complications from chronic somatic diseases. We obtained an R² value of 0.713 for the formula, which indicated that the goodness of fit by the 7 factors included into the regression formula could account for 71.3% of dependent variable variances.

# 15. Discussion

The therapeutic effect of bibliotherapy has long been explored by researchers. The general opinion [9] is that the choice of books reflects a channel to self-seeking of the patients and all the relvealed information such as the personality characteristics, conflict in the

Influencing factors	Repression coefficient	Standard error	Normalized regression coefficient	T value	P value
Therapeutic compliance	-0.22	0.04	-0.38	-5.41	0.000
Åge	-0.20	0.04	-0.36	-4.95	0.000
Family financial status	-1.05	0.35	-0.44	-3.02	0.003
Degree of culture Scores of	2.09	0.77	0.20	2.72	0.007
availability of support in SSRS CMI factor	1.88	0.74	0.18	2.52	0.013
Scores of recourse	0.21	0.10	0.14	2.02	0.045
Complication of chronic somatic disease	0.71	0.35	0.30	2.02	0.045
constant term	10.77	2.35			

(R<sup>2</sup>=0.713, F=23.55, P=0.000 in the regression formula)

Table 7. Multivariate progressive regression analyses on the role of bibliotherapy in factors that influence treatment efficacy of patients with depression during the rehabilitation period.

subconsciousness, and other psychological information unknown to medical care personnel can help the evidence-based diagnosis. Clinical research issues focus on the relevant psychological problems that exist in mental patients and in during childhood growth and development. Floyd [10] studied the role of bibliotherapy in the treatment of depression in old age through two individual cases (depression caused by sadness, loneliness, and sense of guilt after spouse bereft). Felder [11] studied the efficacy of bibliotherapy in the intervention of 24 children (2-10 years of age) and their mothers with perioperative angst due to children undergoing tonsillectomy and hyperplasia adenoidectomy. Kierfeld, et al. [12] used bibliotherapy to intervene in pediatric patients with attention deficit hyperactivity disorder and oppositional defiant disorder. They found that bibliotherapy not only ameliorated the externalizing acts of the pediatric patients greatly but also improved the educational techniques and degrees of satisfaction from the children's parents, indicating that bibliotherapy had clear efficacy in the intervention of externalizing problems of pediatric patients. Buwalda, et al. [13] revealed that bibliotherapy ameliorated the symptoms and physical distress of hypochondriacs effectively. Hodgins, et al. [14] revealed that bibliotherapy prevented the recurrence of pathological gambling effectively but did not show clear improvement in the prognosis. Billich, et al. [15] revealed that bibliotherapy treatment for one month ameliorated the depressive symptoms of patients more significantly than the control group. Hahlweq, et al. [16] applied bibliotherapy to the parents of preschoolers and improved their long-term educational ability. Floyd, et al. [17] applied bibliotherapy to patients with depression in old age and conducted follow-up for 2 years. The results showed that both scores of Hamilton Rating Scale for Depression (HRSD) and

Geriatric Depression Scale (GDS) did not change upon follow-up, indicating that bibliotherapy reduced the recurrence of depression.

Coping is the cognitive and behavioral effort individuals use to manage stressful situations; it is behavior regulation corresponding to environmental variation. The main function of coping is to regulate stressful events, such as by changing the assessment of stressful events and regulating event-relevant somatic or emotional responses [18]. Some studies [19-21] indicated that coping styles regulated depression onset remarkably, and the poor coping styles were closely related to depressive mood. This current study showed clear improvement in aspects of problem solving, self-reproach, and recourse in the patients with depression during the rehabilitation period after undergoing bibliotherapy. The possible reasons for the improvement are two-fold. First, the patients acquired much professional knowledge and relevant information through contact with numerous books, TV programs, and lectures. Through these media the patients learned more ways to solve problems, learned how to manage and face negative stressors, such as adverse life events, and did not self-reproach and complain about oneself but analyzed and viewed problems in a relatively objective and comprehensive manner. Second, the patients revealed their own feelings of diseases and the misunderstanding on mental disorder to others as much as possible through communication with the wardmates and professionals, which facilitated the catharsis of inward negative mood and helped the patients learn how to ask for aids and get along with others normally. Therefore, bibliotherapy played an important role in preventing the recurrence of depression and restoring the social function of the patients, which is consistent with the results of other relevant studies [22].

Some studies [23, 24] indicated that the factor of social support was highly negatively correlated with depression. The current study showed that bibliotherapy improved the status of social support in the patients with depression during the rehabilitation period. Two possible reasons may explain the improved social supports. First, the patients with depression were characterized by wincing, loneliness, anhedonia, poor interpersonal communication, feeling of poor social support, and apparent senses of helplessness, desperation, worthlessness, and incompetence. The combination of drug therapy and intervention of bibliotherapy treated the patients with depression by pairing a pharmacological approach with helping them to acquire knowledge through reading books and watching series of videos and TV programs related to life philosophy and living experience. The bibliotherapy component relieved the anxiety disorder due to misunderstandings of mental diseases and helped the patients obtain support, restore confidence in the future, recognize their own diseases correctly, and eliminate discrimination of their own diseases. Second, during intervention, the patients had more time to communicate with wardmates and professionals on an equal platform, which helped to improve the patients' self-confidence, reacquire the sense of safety, obtain the support and aid from others, and enhance confidence and ability to study and communicate with the outside world, thus improving the status of social support.

This study followed the strong points of traditional bibliotherapy but made four specific modifications to match Chinese patients with depression during the rehabilitation period including. One modification was that in addition to professional books and popular science readings, we provided materials related to medical common sense and introduction materials related to common somatic diseases, psychological problems, and mental disorder with respect to pathogenesis, status of onset, clinical manifestation, classification, length of illness, prognosis, and treatment strategies, which could eliminate the misunderstanding of

patients with mental diseases and realized their right to be informed. A second modification was that in addition to books, the contents for use in intervention were supplemented by videos, VCD, and popular science TV programs, which helped the patients to obtain the desired knowledge via visual and auditory modalities. Third, during intervention, frequency and duration of symposia and communication sessions were increased substantially, which increased the opportunity of the patients to solve their own psychological problems via communication and helped the patients practice their communication and contact abilities. Fourth, missionaries were not simply organizers and spectators but also helped the patients, such as through assisted reading, explanation and guidance of professional knowledge, and search and provision of extensive materials. This modification helped the patients to acquire knowledge and also represented the humanized management.

Single factor analysis in this study showed that good efficacy of bibliotherapy was positively correlated with individual factors, such as female, younger age, high degree of education, negative family history of depression, fewer occurrences of depression, better conditions of income, no complications from severe somatic diseases, chronic onset, high therapeutic compliance, high CMI factor scores for problem-solving, self-reproach, and recourse, as well as high SSRS factor scores for subjective support, objective support, and availability of support. However, the efficacy of bibliotherapy showed no correlation with single factors, such as length of illness, age of diagnosis, number of hospitalizations, complications from psychotic symptoms, history of suicide, CMI factor scores of delusions, wincing, and rationalization. Single factor analysis can only indicate the relationship between a single factor and efficacy of bibliotherapy in the intervention of depression, while multivariate progressive regression analysis can differentiate the main factors that have strong independent impact. In this study, the results of multivariate regression showed the following order of factors that improved the efficacy of bibliotherapy in the intervention of patients with depression during rehabilitation period: good compliance > younger age > good condition of income > high degree of cultures > high SSRS factor scores for availability of support > high CMI factor scores for recourse > no complications from severe somatic diseases. This finding was consistent with other relevant reports [25].

High therapeutic compliance was the most important factor in the efficacy of bibliotherapy. The patients with good compliance had the will to follow the intervention, studied well, and thought of and raised questions in a conscious and active manner to solve problems that they met. In these patients, unhealthy cognition was effectively treated; therefore, prognosis was improved and the risk of recurrence was reduced. This finding was consistent with other relevant reports [26, 27]. Age was the next important factor. Being influenced by degree of cultures, social and life experiences, Chinese middle-aged depressive patients did not tend to accept new things, especially those that might change their long-formed habits of mind. In contrast, younger patients had received new-style education for many years, were accustomed to contact with the external world, tended to absorb new knowledge to change and improve themselves, and tended to accept the bibliotherapy intervention, thus improving the efficacy of bibliotherapy.

This study showed that income directly influenced the efficacy of bibliotherapy in depression. The gap between the rich and the poor was large because economic development and income allocation are imbalanced in China today. In addition, the depressive patients lost some social function due to morbid or abnormal states, such as

decreased volitional activity; therefore, depressive patients tended to have very low incomes. Furthermore, increasing medical-related costs have become the major economic expenditures for some families, and depression as a chronic severe mental disorder requires high medical cost. This increased cost becomes a heavy burden for some families, thus influencing the clinical symptoms and rehabilitation process of Chinese depressive patients to some extent. Therefore, in this study depressive patients may have paid more attention to economy-related issues and neglected their own depressive symptoms, coping styles, and social support, which reduced the efficacy of bibliotherapy in the intervention of depression. Degree of cultures also directly influenced the efficacy of bibliotherapy. The patients with high education backgrounds did not restrict themselves to certain reading materials but chose intended readings freely based on their preferences, tended to comprehend the implication in readings, and tended to think and summarize, which optimized bibliotherapy. Some studies [28, 29] indicated that social support and coping styles were also important factors that influenced depression. This study showed that depressive patients achieved good efficacy with bibliotherapy when they tended to use the coping style of recourse and make the best use of social support. These sorts of patients tended to take reading objectives as a style of recourse and support and combined the obtained information with their own state to correct unhealthy cognition in themselves, which improved the efficacy in the intervention of depression in an aided manner. This study also showed that the depressive patients without chronic somatic diseases were more effectively treated with bibliotherapy, likely because chronic somatic diseases as sustained stressors interact with the depressive symptoms [30]. Bibliotherapy was an aided measure of rehabilitation acting merely to improve the cognitive status of the patient with depression but could not relieve or eliminate the sustained somatic diseases; therefore, the depressive symptoms due to the worsened bodily state could not be eliminated. As readings progressed, the patients with chronic somatic diseases paid most attention to materials related to their own somatic diseases. However, the patients themselves lacked the necessary medical knowledge, so they tended to generate misunderstanding and hopelessness and form the depressive negative mood, which reduced the efficacy of bibliotherapy in the intervention of depression.

In general, this study indicated that bibliotherapy effectively improved depressive symptoms, coping styles, and social support of Chinese patients with depression during the rehabilitation period. The efficacy of bibliotherapy in the treatment of depression was influenced by many physiological, psychological, and societal factors. The contributing factors to improved efficacy of intervention included high therapeutic compliance, younger age, better family financial status, high degree of cultures, high availability of social support, use of positive coping styles such as recourse, and no chronic somatic diseases.

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#### 17. Abbreviation

HAMD: Hamilton Depression Scale;

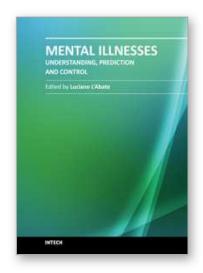
MECT: Modified electroconvulsive therapy;

CMI: Coping Methods Inventory; SSRS: Social Support Rating Scale.

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#### Mental Illnesses - Understanding, Prediction and Control

Edited by Prof. Luciano LAbate

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In the book "Mental Illnesses - Understanding, Prediction and Control" attention is devoted to the many background factors that are present in understanding public attitudes, immigration, stigma, and competencies surrounding mental illness. Various etiological and pathogenic factors, starting with adhesion molecules at one level and ending with abuse and maltreatment in childhood and youth at another level that are related to mental illness, include personality disorders that sit between mental health and illness. If we really understand the nature of mental illness then we should be able to not only predict but perhaps even to control it irrespective of the type of mental illness in question but also the degree of severity of the illness in order to allow us to predict their long-term outcome and begin to reduce its influence and costs to society. How can we integrate theory, research evidence, and specific ways to deal with mental illness? An attempt will be made in the last conclusive chapter of this volume.

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