Original Article

The effect of psycho-educational intervention on the life quality of major depressive patients referred to hospitals affiliated to Shiraz University of Medical Sciences in Shiraz-Iran

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Abstract

Background: Depression is the world's fourth most prevalent health problem which is associated with substantial mortality, direct medical cost, diminished life quality, and significant physical and psychosocial impairment. This study aimed to investigate the effect of psycho-educational intervention on the life quality of major depressive patients.

Materials and Methods: Sixty patients who were willing and had met the required criteria for participation were selected from hospitals in Shiraz city, Iran. So 30 of the patients were assigned to the experimental group and 30 others to the control group. For data collection, a two part questionnaire was developed, the first part consists of 13 items related to general characteristics and the second part with 36 items on life quality were used. The experimental group was divided into five subgroups of 6 patients. For each group, six intervention sessions were scheduled. The control group did not receive the intervention. The questionnaires were completed for all subjects in the experimental and control groups before and 1 month after the end of psycho-educational intervention. Tabulated data were analyzed using chi-square, independent and pair *T*-test.

Results: The results of the study indicated that psycho-educational intervention in comparison with other available treatments proved to be more effective on eight domains of life quality in the experimental group. A significant difference was observed for all the domains ($P < 0.001$).

Conclusion: Psycho-educational intervention can be used as an auxiliary treatment in improving life quality and decreasing depression in patients suffering from major depressive disorder.

Key words: Depressive disorder, Iran, life quality, major

Introduction

Depression is the world's fourth most prevalent health problem which is associated with substantial mortality, direct medical cost, and diminished life quality.

According to the WHO report by the year 2020, depression will constitute the major health problem in the developing world and the second biggest cause of disease burden worldwide. Depression is the major health problem in the developing world that results in significant physical and psychosocial impairment. It leads to pronounced decrements in the quality of life, as reflected in subjective well-being and the performance of routine activities and social roles.[1,2] Depressed persons miss work because of illness at twice the rate of the general population.[3] Health service costs are 50%–100% greater for depressed patients than nondepressed patients.[4] Impaired concentration, increased substance abuse, impaired or lost relationship, and suicide are added additional cost due to depression.[5,6] Approximately 35% of patients who are seen in primary care meet criteria for being diagnosed with some form of depression, with 10% of patients suffering from major depression. The prevalence of major depression is 2 to 3 times higher in primary care patients than in the overall population.[7,8] Life quality has important situational determinants that can show the impact of depression on daily functioning and well-being.[9] Also many factors

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including living conditions, social relationships, financial resources, culture, and the environment interact with health status to determine the individual's quality of life. There is a direct relationship between mental health status and life quality of people.[10] Depression will cause prolong deficits in psychosocial and vocational functioning and as a result reduces life quality of patients.[11,12] Quality of life is highly influenced by depressed mood, feeling of anxiety, tension, and fatigue.[13] Several studies have documented the effect of cognitive-behavior therapy and social skills training, comparison of different interventions with drug therapy in depressed patients,[14-17] and some studies are published regarding the effect of psycho-educational intervention or psycho-educational intervention on life quality of patients with bipolar disorder and not major depressive disorder (MDD).[18-22] In one study by Daniela (1999) on 63 depressed and 22 healthy control subjects on life quality of depressed patients, they showed lower levels of mood QOL, higher negative mood, and more frequent and sever complaint.[23] Cognitive therapy for depression is a psychological treatment designed to train patients to identify and correct the negative depressive thinking, which contributes to the maintenance of depression. According to our knowledge, fewer studies has been done regarding psycho-educational intervention on life quality of Iranian patients with MDD; therefore, the aim of this study was to investigate the effects of psycho-educational intervention on life quality of patients with MDD referring to hospitals affiliated to Shiraz University of Medical Sciences.

Materials and Methods

In this interventional case control study, 65 patients who had met the criteria for participation from two hospitals in Shiraz in 2009 took part in the study. The sample size was calculated according to previous published researches to obtain sufficient power to detect differences between the groups. They were randomly assigned into the experimental and control groups after considering the preintervention baseline measurement undertaken by researchers. All patients had MDD, as assessed and approved by two psychiatrists. The inclusion criteria was age 18 and more, not having any other mental disorder, not having delusion or hallucination, and able to participate in group. Their depression was not due to physical diseases or bipolar disorder. They were admitted in the psychiatric units of hospitals affiliated to Shiraz University of Medical Sciences at the time of study and were on antidepressant medication. During the screening session, the procedure was explained to all the subjects and informed consent obtained. A two part questionnaire with 13 items concerning demographic and general information in the first part, and the SF-36 life quality (short form 36, Ware, 1996) with the 36 items[24] in the second part were used. SF-36 is widely used to evaluate health-related quality of life. The life-quality questionnaire is a kind of general tool which consists of eight aspects. These aspects are physical functions, performance limitation due to physical problems, performance limitation due to emotional problems, physical pain, social function, mental health, general health perception, and vitality. In Iran, the short form of health survey (SF-36) was translated and validated by Montazeri, A (2005). The internal consistency showed that all eight SF-36 scales met the minimum reliability standard, the Cronbach's coefficients ranging from 0.77 to 0.99, and validity showed satisfactory results. All correlation above 0.40 ranging from 0.58 to 0.95. The SF-36 subscales are standardized on a 0–100 point scale. A higher scale represents a better self-assessed quality of life.[25]

The study was conducted after approval had been obtained from the Ethics Committee of Shiraz University of Medical Sciences. All participants were informed of the objective and design of the study and written consents were received from the participants. The patients were informed that they had the right to go out of the study at any time and were assured of the confidentiality of the study.

At the beginning of the study, five of the participants dropped out of the study; therefore, 30 patients were assigned to the experimental group and 30 patients to the control group. The experimental group was divided into five subgroups of 6 patients. For each group, six intervention sessions were scheduled. Each session lasted for 90 min once a week. The contents of the sessions were about information on depression, sign and symptoms, medication and treatment, side effects of medication, self-esteem, and assertiveness,. Negative thought patterns and rational thinking, social skill training, and relaxation training. The control group did not receive the intervention. The questionnaire was completed by researcher for all subjects in the experimental and control groups before the psycho-educational intervention and 1 month after the end of psycho-educational intervention.

The Statistical Package for Social Sciences (SPSS) software was used for data analysis. Chi-square, independent, and pair *T*-test have been used.

Results

The findings revealed that the experimental and control groups were similar with respect to demographic characteristics information, which is presented in Table 1.

Also two groups were similar from the point of income ($P = 0.82$), occupation ($P = 0.45$), number of admission (0.320), and living condition ($P = 0.13$).

The total score of QOL in two groups are presented in the Table 2. Low mean scores for quality of life in both physical and mental component revealed an inferior quality of life for depressed patients before intervention. It showed that there was a statistically significant difference within two groups in seven aspects of QOL which are physical function, limitation of role performance due to physical pain, limitation of role performance due to psychological problem, social function, pain, psychological health, vitality, but only in one aspect there was not a statistically significant difference which was role performance limitation due to physical problems ($P < 0.117$). Also the result showed that there was a statistically significant difference between two groups in all aspects of QOL ($P < .0.001$) [Table 3].

Psycho-educational intervention in comparison With other available treatments indicated to be more effective on life quality of patients with MDD.

Discussion

This study showed that psycho-educational intervention is effective in improving life quality in depressed patients. This result is similar with several other studies which compare and report on improvement quality of life during various phases of treatment with antidepressant and/or psychotherapy.[26] For example, Matsunaga *et al.* in their study on treatment-resistant depressed patients suggested a positive effect that the addition of cognitive behavioral group therapy to medication has on depressive symptoms and social functioning of patients.[27] Also Bocking and his colleagues in a 5.5-year follow-up study on 172 patients with recurrent depression reported long-term effects of preventive cognitive therapy

Table 1: Demographic and clinical characteristics of the study sample in groups

Items	Experimental		Control		*P*
	n	%	*n*	%	
Gender					
Male	13	43.4	14	46.67	=0.790
Female	17	56.6	16	53.33	
Marital Status					
Married	22	73.4	13	43.3	>0.081
Single	8	26.6	17	56.7	
Education Level					
Illiterate	2	6.7	4	13.3	>0.062
Primary school	8	26.6	8	26.6	
Secondary school	10	33.4	17	56.7	
Diploma and Higher	9	30	0	0	
Unknown	1	3.3	1	3.3	
No of previous admission					
No admission	9	30	20	66.7	
Once	10	33.3	7	23.4	
Twice	3	10	1	3.3	=0.320
Triple and more	5	16.7	1	3.3	
Unknown	3	10	1	3.3	
Total	30	100	30	100	

Table 2: Means score of life quality domains in groups

Variables	Case group			Control group		
	Before M (SD)	After M (SD)	*P* value	Before M (SD)	After M (SD)	*P* value
Physical function	16.7 (3.6)	24.3 (2.6)	0.001	16.9 (4.1)	20.5 (3.09)	0.001
Role performance limitation due to physical problems	−1.16 (1.3)	−3.5 (0.8)	0.001	−1.8 (1.3)	−2.2 (0.8)	0.117
Role performance limitation due to psychological problems	−0.16 (0.46)	−2.4 (0.56)	0.001	−0.06 (0.25)	−0.86 (0.68)	0.001
Social performance	3.2 (1.1)	7.9 (1.4)	0.001	3.8 (1.3)	5.5 (1.1)	0.001
Physical pain	−5.3 (2.4)	-9.2 (1.9)	0.001	−6.5 (2.04)	−7.5 (1.5)	0.008
Psychological health	9.0 (2.6)	21.4 (3.6)	0.001	9.9 (2.3)	15.6 (3.1)	0.001
Vitality	8.8 (3.1)	16.8 (2.3)	0.001	9.0 (2.3)	13.0 (2.9)	0.001
General health perception	13.4 (4.2)	23.4 (3.9)	0.001	13.7 (3.9)	18.2 (4.3)	0.001

Table 3: Means score of life quality domains between groups (before and after)

Group variables	Case M (SD)	Control M (SD)	*P* (value)
Physical function	7.6 (3.6)	3.6 (4.4)	0.001
Role performance limitation due to physical problems	−2.3 (1.1)	−0.4 (1.4)	0.001
Role performance	−2.2 (0.5)	−0.8 (0.6)	0.001
Limitation due to psychological problems			
Social performance	4.7 (1.5)	1.7 (1.4)	0.001
Physical pain	−3.9 (2.1)	−1.0 (2.0)	0.001
Psychological health	12.4 (4.4)	5.7 (3.6)	0.001
Happiness	8.0 (3.5)	4.0 (3.6)	0.001
General health perception	10 (4.4)	4.5 (4.4)	0.001

in recurrent depression.[28] On the other hand, a study by Levkovitz *et al.* (2000) suggest that group interpersonal psychotherapy might be effective for a subset of patients who respond to antidepressant medication.[29] Also Chung *et al.* (2009) regarding quality of life for patients with major depression in Taiwan recommended a development and validation of an appropriate model for the QOL of patients suffering from major depression.[9] Exploring the impact of different modalities on different aspects of life quality can improve the standard of care.

The descriptive data, which are presented [Table 2], demonstrated that in one of the QOL aspects which is "role performance limitation due to physical problems" there was not a statistically significant difference ($P < 0.117$). This could probably explain that majority of patients in the experimental group (56.6%) and control group (53.33 %) were female and group could provide the opportunity to work mostly on emotional aspects.

The strategies of psycho-educational intervention is to evaluate the advantages and disadvantages of different types of behavior and coping styles of adaptation, to share information between patients and support from group members to obtain positive beliefs and better effects and better decision making. Stacey *et al.* explored the decision-making needs of 94 patients with depression. Their findings suggest that nurses can facilitate patients' active participation in decision making.[30] Assessment of quality of life has been increasingly important in health care, particularly as an evaluative method to measure outcomes of the impact of disease and intervention.[31]

Although this study indicated that psycho-educational intervention was effective for patients with MDD, some limitation must be noted. First, there was no follow-up over time, which is important to continue to follow these patients to determine if the early positive effects of psycho-educational intervention will continued. It is recommended that other researchers consider a longitudinal design to document the long-term effects and also double blind study is recommended in future studies.

Also, it is recommended to evaluate different types of treatment modalities in order to receive better insight about the different types of psycho-educational intervention and pharmacological treatment.

Also further work needs to be done to train health professionals to deliver psycho-educational intervention to depressed patients to achieve better patient's outcome of life quality.

Conclusions

This study indicated that patients with MDD benefited from psycho-educational intervention in improving their quality of life and decreasing depression.

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