Group Quality of Life Therapy in Patients with Multiple Sclerosis

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ABSTRACT

Objective: Multiple sclerosis (MS) has several physical, psychological, and psychiatric symptoms. Regarding the psychological impact of MS on aspects of life, this study sought to examine the effect of group quality of life therapy on depression and anxiety in these patients.

Methods: Two groups of 15 matched patients with MS were randomly assigned to experimental and control groups after completing the Cattell anxiety scale and Beck depression questionnaire (short form). Then, the quality of life group therapy was carried out on the experimental group. At the end, both groups participated in the posttest assessments.

Results: Analysis of covariance showed that the implemented intervention helped reduce the anxiety and depression in patients with MS (F=4.46, P=0.04; F=41.4, P=0.001, respectively).

Conclusion: Quality of life group therapy can help reduce anxiety and depression in patients with MS by improving their life satisfaction, meaningfulness, and sense of worthiness.

1. Introduction

Multiple sclerosis (MS) is the most prevalent and damaging disease of myelin sheaths (Brodsky, 2002) that has several physical symptoms (Bol et al., 2009). In a study by Rammohan, Rosenberg, and Lynn et al. (2002) 95% of the patients with relapsing-remitting MS suffered from depression, agitation, anxiety, and irritability in the recovery period. Bipolar disorder and even psychosis are 2 to 3 times more prevalent in these patients (Nocenti, Pasqualetti, & Bonavita, 2006). The psychological symptoms are significant for two reasons: (1) They are parts of the problems faced by patients with MS and (2) Symptoms like anxiety, depression, agitation, and the like can worsen the biological symptoms (Politte, Haffman, & Stern, 2008).

During the past two decades, quality of life (QoL) has been one of the most important topics in clinical research and emphasized as an effective factor on patient's care (Rahimian, 2008). Quality of life therapy (QoLT) is a combination of cognitive therapy and positive psychology (Seligman, Tracy, & Peterson, 2005). QoLT uses 5 overall strategies taken from CASIO theory to enhance life satisfaction. Five CASIO strategies to enhance happiness are as follows: change your circumstances (C), change your attitudes (A), change your goals and standards (S), change your priorities (I), and increase your satisfaction with the areas that are not your immediate concern (O) (Frish, 2006). Grant, Salced, and Hynan (1993) investigated the impact of QoLT on patients with depression and demonstrated that QoLT could lower the level of depression and foster meaningfulness regarding quality of life and self-efficacy in all patients.

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Table 1. T-test analysis for matched variables in experiment and control groups.

Variable	Group	N	Mean	t	Sig.
Age	Experiment	15	31.47	0.34	0.73
	Control	15	30.88		
Education (year)	Experiment	15	10.71	-0.22	0.82
	Control	15	11.4		
Disease length	Experiment	15	8.95	-1.2	0.64
	Control	15	9.31		
Anxiety	Experiment	15	41.34	-0.86	0.71
	Control	15	42.03		
Depression	Experiment	15	24.21	0.51	0.69
	Control	15	23.76		

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In another study, Rodrigo, Moher, and Widows (2006) reported that QoLT and supportive treatment effectively increased QoL and social intimacy and improved mood disturbance among patients in the waiting list of liver transplant. With regard to the impact of psychological problems, especially depression and anxiety on different areas of patients' lives with MS, this study aimed to determine whether QoLT can improve depression and self-efficacy in patients with MS.

2. Methods

Participants

A total of 15 patients with MS were selected by simple random sampling method and matched with 15 other patients with the same age, gender, marital status, disease length, disease severity, treatment, and medical status as well as educational and socioeconomic situations. Then, one

Table 2. A short description of QOLT QoLT sessions.

Session 1	Getting familiar with group members, group rules, therapeutic goals, and training course; agreeing upon the course schedule, conclusion, feedback, and performing the pretest.
Session 2	A review of session one, defining QOL QoL and discussing the its concepts of QOL, happiness, and satisfaction; conclusion and feedback.
Session 3	A review of session two, acquaintance with the dimensions of QOL QoL and tree of life, discussing the problematic areas of members' lives, conclusion and feedback.
Session 4	A review of session three, defining QOLTQoLT, defining CASIO and its five 5 factors, discussing the situation of mentioned factors in group members, conclusion, and feedback.
Session 5	A review of session four, introducing first strategy; change of circumstances (C) and its use in developing life quality, conclusion, and feedback.
Session 6	A review of last previous session, introducing second strategy; change of attitudes (A) and its use in developing life quality, conclusion, and feedback.
Session 7	Review of last previous session, introducing third and forth strategy, change of standards (S) and importance (I) and its use in developing life quality, conclusion, and feedback.
Session 8	A review of session seven, introducing fifth strategy, satisfaction increase in other areas (O) and its use in developing life quality, conclusion, and feedback.
Session 9	A review of session eight, presenting the basics of QOLQoL, discussing the important basics concepts and their use in increasing life satisfaction, conclusion, and feedback.
Session 10	Overall review of therapy course, discussing how to generalize the use of five 5 strategies and QOL QoL basics in different circumstances of real life, conclusion, termination closing, and performing post-test.

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Table 3. Descriptive statistics for depression and anxiety scores.

Variable	Group	N	Mean	SD
Depression	Experiment	15	17.49	3.54
	Control	15	23.45	3.02
Covert anxiety	Experiment	15	17.47	3.54
	Control	15	23.47	3.02
Overt anxiety	Experiment	15	15.93	3.12
	Control	15	22.33	3.24
Total anxiety	Experiment	15	41.73	4.52
	Control	15	47.13	5.08

group was randomly selected as the experiment group and the other as the control group.

Measures

Before and after implementation of the intervention, both groups filled in the Beck's depression inventory (short form 13-question) and Cattell anxiety scale. After completing the questionnaires in the pretest phase, the experiment group underwent QoLT in ten 90-minute sessions over a period of 5 weeks. The basis of this intervention is a method introduced by Frish (2006).

Cattell anxiety scale

This scale contains 40 items and is suitable for all ages above 14-15 years in most cultures. Participant's responses are scored according to the correction window, then sum of scores for the first 20 questions (covert anxiety) impacted separately and sum of scores for the second 20 questions (overt anxiety) impacted too. These two scores are added together and an overall anxiety score is obtained. According to Mansour and Dadsetan (1989), this scale has good psychometric properties in Iranian population (Corraze, 2007). Mehryar (1994) pointed a reliability of 0.78 for the scale. In other studies like Vahabzade (1972) and Chegini (2002), the reliability of this scale was acceptable and ranged from 0.7 to 0.9 (Azkhosh, 2008).

Beck's depression inventory (short form with 13 questions):

This questionnaire consists of 13 sets of questions; each question expresses a state in individuals. Since the highest mark in every question is 3, the highest scale mark would be 39. This scale is normalized to Iranian population and reported to have desirable psychometric features (Corraze, 2007). Beck et al. (1988) have been reported that concurrent validity of the scale is 0.79 and its test-retest reliability is 0.67 (Kaviani, Mousavi, & Mohit, 2001). Goodarzi (2002) showed that the reliability of the questionnaire in Iranian people based on the internal consistency coefficient was 0.84.

3. Results

Descriptive statistics for depression, covert, overt, and overall anxiety scores for experiment and control groups are summarized in Table 1.

Table 4. Between-subject effects for depression in experiment and control groups.

Resources	Sum of squares	df	Mean of squares	F	Sig.
Depression	100.54	1	100.54	4.46	0.04
Group	309.33	1	309.33	13.73	0.001
Error	12.608	27	22.52		
Total	5616	30			

Table 5. Between-subject effects for covert anxiety in experiment and control groups.

Resources	Sum of squares	df	Mean of squares	F	Sig.
Covert anxiety	59.31	1	59.31	5.97	0.02
Group	258.52	1	258.52	26.03	0.001
Error	15.26	27	9.93		
Total	13164	30			

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ANCOVA which examined the influence of QoLT intervention on participants' depression indicates that there are significant differences between depression scores in control group and experiment group (F=13.73, P<0.01).

Results of ANCOVA for evaluation of the effect of QoLT on covert anxiety of participants showed that after removing the effects of pretest scores, there is a significant difference in covert anxiety between experiment and control group. In other words, the main effect of group as a between-subject factor was significant (F=26.03, P<0.01). Therefore, it seems that QoLT has been effective in reducing covert anxiety in patients with MS.

As it is shown in Table 6, the influence of QoLT on overt anxiety is the same for covert anxiety, i.e. the effect of group as a between-subject factor was significant (F=30.52, P<0/001). This analysis indicated that after the intervention, the mean anxiety in the experiment group was significantly lower than control group. The results of ANCOVA regarding the effect of QoLT based on overall anxiety indicated that after removing the effects of pretest scores, there was a significant difference between experiment and control groups in overall anxiety (F=21.4, P<0.001). The mean score of overall anxiety was significantly lower in the experiment group than control group. In general, QoLT was effective in reducing anxiety in patients.

4. Discussion

In sum, QoLT could significantly reduce depression along with increase in self-efficacy in patients with MS. This finding is compatible with the results of Ghasemi (2009) in which the effectiveness of QoLT on the mental well-being and health of patients coming to consulting centers had been examined. The research showed that QoLT could increase mental health, mental well-being, and positive emotions of participants in both posttest and follow-up. However, the influence of this method on reducing somatization, anxiety symptoms, and negative emotion as well as increase in life satisfaction has been only significant in the pretest phase. Grant et al. (1993) examined the effect of QoLT on individuals with depression. According to their findings, this intervention reduced depression in all patients and significantly increased their quality of life and self-efficacy by the end of the therapy.

Follow-up checks showed that the changes were stable too. Rodrigo et al. (2006) reported significant positive influence of QoLT on the quality of life, agitation, and sociability of the patients in the waiting list for liver transplant. Norberg et al. (2008) have also examined the influence of QoLT on patients with simultaneous depression and anxiety. All these findings showed that those interventions had caused a significant decrease in patients' depression and anxiety.

QoLT teaches principles and skills to the participants to help them recognize, pursue, and meet needs, goals, and wishes in important areas of life. The goal of QoLT is to increase the professional self-care or inner richness and prevent depression (Stanbook and Holzmann, 2000). Frish (2006) indicated that this therapy seeks to

Table 6. Between-subject effects for overt anxiety in experiment and control group.

Resources	Sum of squares	df	Mean of squares	F	sig.
Overt anxiety	32.66	1	32.66	3.54	0.74
Group	284.868	1	284.868	30.52	0.001
Error	252.002	27	9.33		
Total	11574	30			

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Table 7. Between-subject effects for overall anxiety in experiment and control groups.

Resources	Sum of squares	df	Mean of squares	F	Sig.
Total anxiety	391.51	1	391.51	41.4	0.001
Group	203.81	1	203.81	21.4	0.001
Error	257.14	27	9.52		
Total	60097	30			

enhance happiness and well-being in people by discovering their potential abilities and to improve their quality of life. A conscious positive experience is rewarding per se because this inner feeling of happiness and satisfaction makes the individual have security, health, energy, optimism, self-efficacy, love, to be loved, sociability, and appropriate coping strategies (Pen et al., 2007). A look at goals and contents of QoLT such as developing well-being, life satisfaction, increasing inner abundance, and self-care shows that this therapy can increase self-efficacy and reduce anxiety and depression in individuals by improving well-being, happiness, and life satisfaction.

The main limitation of the present study was the strong interconnections between physical and psychiatric symptoms of the disorder. These interconnections make it very difficult to control variables and reduce the generalizability of the results. Another limitation of this study was the progressive nature of disease that made difficult coordination of treatment sessions.

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