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Effectiveness of Solution-Focused Group Therapy on the Resiliency of Patients with Multiple Sclerosis (MS) in Tehran

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Abstract

The current research was conducted with the aim of determining the effectiveness of solution-focused group therapy in resiliency of patients with MS. The current research methodology is experimental with pretest-posttest, one-month follow up and control group. The population includes 60 patients covered by Iran MS Society during 2012-2013, among which 30 patients were chosen and by the use of random sampling they were put into two groups of experimental (15 individuals) and control (15 patients) group. Then the experimental group received 8 sessions of solution-focused therapy, while no intervention was conducted on the control group. Tools being used in this research include: Resilience Questionnaire (RQ), and the training package of solution-focused group therapy. Research data were analyzed through MANOOVA test and ANOVA test with repeated measures. Comparing the dimensions of resilience (self-confidence, personal view, flexibility, organized, problem-solving, interpersonal competence, having social relationship, active) by the use of Covariance analysis after eliminating the effect of pretest showed that experimental intervention is generally effective on the resiliency. Results of ANOVA test with repeated measures also showed that the effects of therapy have stayed at the follow-up level.

Keywords: Solution-Focused Therapy, Resilience, Patients with MS.

Introduction

MS is a diseases related to the central nervous system. This disease is one of the most common neurologic diseases among human beings and it is also considered as the most debilitating disease during adolescence. This disease damages the myelin sheath of the central nervous system including brain, optic nerve and spinal cord. The most common age of catching this disease is during adolescence and it is twice more common in women than men (Holland & Halper, 2005). According to the reports of Iran MS Society there are 40 thousand MS patients in Iran and 9 thousands of them are recorded, and this number is increasing (Agha Bagheri et al., 2011). The most common age of catching this disease is 20-40 (Currie, 2001). This disease is more common in women (Kenner et al.,2007). Studies have shown that around 50-60% of MS patients suffer from depression (Currie, 2001; Donna, Cathy, 2002), and 25-40% of them suffer from stress (Chwastiak et al., 2005).

In addition to physical problems, chronic diseases such as MS also create several mental disorders for the patients (Esmaeili and Hosseini, 2009). Stress as a multi-dimensional and multi-reason phenomenon could be considered as one of the MS complications and also a factor in escalation or recurrence of disease symptoms (Mohr, Hart, Julian and et al., 2004; Mitsonis et al., 2008; Esmaeili and Hosseini, 2009). Results of Ackerman, Heyman, Rabin and et al, 2002; Buljevac

et al., 2003 also indicate that stress in MS patients is very common and also it results in intensification of the disease. In MS patients therapies sometimes we need to help the patients to reduce the stress caused by physical and/or mental symptoms of the disease and/or failure to accept the reality, and we should help them accept that they have the ability to change their horizons and they could enjoy their other capabilities and this disease could not take away their family life and their vivacity, and it could not result in increasing stress, decreasing resiliency and flexibility in them. They should reach this conclusion that some of the facts of life are not under their control and it is where they should learn to adapt to a new way of life (Mohammadi, 2007).

Resilience is one of the important variables in psychological researches, which is also considered as a personality trait and it is one of the internal factors for preventing and coping with stress (Agha Yousefi, Shaghaghi, Dehestani and et al, 2012). Rutter (1990) defines resilience as an individual difference in coping and reacting toward difficulties, thus a resilient individual processes an adversity in a more positive manner and he/she considers him/herself as a person who has the capabilities to cope with it. However resilience is not only stability against damages or threatening conditions or a passive mode for coping with risky conditions, but also an active and constructive participation in surrounding environment. It could be said that resilience is the individual's capability in establishing a bio-psycho balance in risky conditions (Conner and Davidson, 2003). A training program for controlling the mental pressure could facilitate the increase of resilience in MS patients. It seems that solution-focused method could be a better method for increasing the resilience in MS patients and that is due to the fact that solution-focused method has a set of innovative techniques and due to the fact that the consultant provides solutions according to the patient's cooperation. Although there is no study available showing the use of this method for psychological aspects of MS patients, many studies highlight the efficiency of using solution-focused method for treatment of psychiatric symptoms of different diseases (Gutterman et al., 2005; Javanmiri, 2011).

Solution-focused therapy is an approach toward psychotherapy, and instead of solving the problem it is based on creating solutions. This approach seeks to explore the current resources and future hopes instead of exploring the current problems and previous backgrounds. Solution-focused group therapy took its form from main endeavors of De Shazer and et al (1988) in short-term family therapy center in Milwaukee. This therapy focuses on what is possible and it does not have any interests in gaining knowledge about the problem, because from their point of view there is no necessary correlation between the problems and their solutions (Currie, Translated by Seyyed Mohammadi, 2010). The solution-focused therapy includes energizing assumptions such as: individuals are healthy, they are efficient, and they have the ability to create solutions that can make their lives better (Prochaska, 2007; Translated by Seyyed Mohammadi, 2008). Based on its founders the main feature of this approach is its short-term and optimistic nature. According to De Shazer (1988) the visitors' complaints are considered as doors that if the keys to these doors will be found they could enter a more satisfying life, thus they have provided some therapy questions and master key interventions. The aim of these questions is to cut the memes keeping the problem, and change the obsolete family beliefs and increase the number of exceptions for a behavior that is considered unchangeable. The most important questions are: the question of miracle and the question of exception through which individuals learn to concentrate on their own capabilities and resources and also by the emphasis on the current time, they learn to find possible solution s for their problems. In this approach it is assumed that there are several solutions available and they only need to be discovered (Goldenberg and Goldenberg, 2000). The solution-focused therapist's duty is to help the visitor to develop the amount of exceptions toward one's problem, which means developing the effective solutions that were previously available. The therapist tries to look at the problem from the visitors' perspective, and seeks to find a way for changing the behavior with the same

understanding. But despite the similarity of solution-focused model with brevity and scientism of strategic approaches, therapists in this doctrine emphasize on the collaboration (between therapist and visitor) in constructing solution-focused ways (Davoudi et al., 2012). In another level, the only aim of therapy is helping the visitor that starts with changing the conversations from talking about the problem to talking about the solutions. Helping the visitor to determine clear and achievable aims is the major intervention and thinking about the future and what the individual wants to be different is a main part of the task which is done by the solution-focused therapist (Janson et al., 1992).

Regarding the concentration of this therapy on the current time, positive and optimistic perspective toward the individual's abilities and changing the individual's concentration from the problem to the solutions, this therapy could help individuals to concentrate on finding solutions in stressful situations and have better understanding about their abilities, and try to improve them. The effectiveness of this therapy has been confirmed in the following fields: increasing the efficiency of parents having children with mental disabilities (Lioyd and Dallos, 2006), treatment of migraine headaches (Gutterman et al.,2005), reducing the depression in teens (Javanmiri, 2011), improving academic achievements of university students (AliMohammadi, 2010), increasing the mental health of women under domestic violence (Sadeghifar, 2009), reducing the behavioral problems of children and teens (Bakhshipour Jouybari, 2009), reducing the parents-child conflicts (Giti Pasand, 2009), and reducing the marital conflicts (Saeidi, 2006). Thus in order to decrease the problems of MS patients and increase their abilities the current research has been conducted with the aim of determining the effectiveness of solution-focused group therapy on the resiliency of MS patients.

Material and methods

The current research is an experimental research with pretest, posttest and one-month follow up and control group. The population includes 60 patients covered by Iran MS Society during 2012-2013, and their scores in the resilience questionnaire is one standard deviation lower than the mean. The sample size includes 30 individuals of this population and they were put into two 15-individual groups of experimental and control group by the use of simple random sampling.

Research Procedure

The current research conditions to participate include individuals of 16-50 years old with relapsing and remitting MS that had a slower and more controlled process, and the individuals had higher education diploma. The solution-focused group therapy consists of 8 sessions, one session per week (90 minutes) for the participants. After conducting the pretest the experimental group examinees were asked to continuously participate in solution-focused group therapy sessions without any absences. After performing 8 training sessions the posttest was conducted on both groups the same as pretest. Also in the follow up level, one month after therapy the RQ was re-conducted. The process of implemented intervention in the research is explained as followed:

Structure of intervention sessions of **solution-focused group therapy**

1st session: Introduction and expression of the aims of sessions, introducing the problem and method of writing reports tor tasks

2nd session: Understanding the approaches for coping with problems from different psychological perspectives

3rd session: Surveying the group members' problems, using the targeting technique

4th session: Determining situations and solutions, using the technique of exploring exceptions in reducing problems and detecting the moments when the problems and complaints are less, using the miraculous questions

5th session: Using the master key technique: doing a different task (preparing a list of problems and providing different solutions)

6th session: Using the master key technique: paying more attention to the pathological behavior and the results of behavior

7th session: Familiarizing with master key technique: writing thoughts, reading them and then burning them, writing negative messages and replacing them with positive messages

8th session: Providing a summary about the subject matters of held sessions and a review about them, answering to all of the questions and uncertainties of group members, implementing the posttest

Instruments

Resilience Questionnaire (RQ)

This questionnaire has been prepared by reviewing the research resources in the field of resilience. It include 32 items and 8 components: self-confidence, personal view, flexibility and adaptability, organized, problem-solving, interpersonal competence, having social relationship, active participation. This questionnaire is a five-point Likret scale, 1 (strongly disagree) to 5 (strongly agree), the highest score was 160 and the lowest score was 32, 141-160 high resilience, 116-140 resilient, 61-115 low resilient, 32- 60very low resilient (Conner and Davidson, 2003). The current resilience research was at first conducted on the normal individuals in a preliminary study. In order to survey the questionnaire validity, the correlation of sub-scales with each other (from 0.37 to 0.56) and with the whole test (from 0.38 to 0.59) was used. These findings showed that the correlations are at an optimum and significant level. Also calculating the Cronbach's alpha for the sample showed that this coefficient for all of the sub-scales is higher than 0.70 and it is in an optimum level. The Cronbach's alpha coefficient for each of the sub-scales is: self-confidence (0.73), personal view (0.81), flexibility and adaptability (0.79), organized (0.82), problem-solving (0.71), interpersonal competence (0.74), having social relationship (0.80), active participation (0.70).

Results

By describing the collected data in this study, the descriptive findings related to the scores of pretest, posttest and following up the dependent variables of the experimental and control group are shown in table1.

Table 1. Mean and standard deviation of scores of components of resilience in pretest, posttest and follow up of experimental and control group

	Experimental Group						Control Group					
	Pretest		Posttest		Follow up		Pretest		Posttest		Follow up	
Main Variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self-confidence	12.06	4.47	13.93	3.75	17.33	2.52	13.80	3.72	15.07	2.49	17.07	2.89
Personal view	13.06	3.82	14.60	3.31	17.40	2.19	14.62	3.78	15.60	3.04	17.20	3.05
Flexibility & Adaptability	11.93	4.28	13.60	3.24	16.93	2.78	14.60	3.86	14.66	2.99	17.20	4.03
Organized	9.60	3.75	12.20	2.95	15.46	2.89	12.93	3.57	13.73	3.73	13.00	3.60
Problem-solving	11.46	3.94	16.66	2.22	17.06	1.94	14.00	3.31	14.40	2.74	14.66	3.17
Interpersonal competence	12.08	4.42	16.33	2.84	17.86	1.40	15.40	3.73	15.73	3.30	15.60	3.18
Social relationship	13.20	4.49	16.20	2.88	16.13	2.97	14.20	3.56	13.93	4.07	13.80	3.66
Being active	12.80	4.37	16.13	2.94	17.20	2.27	14.60	3.77	14.46	3.20	14.06	3.10
Resilience	96.933	29.884	119.67	19.088	135.402	15.07	138.80	26.50	115.86	20.53	122.43	19.38

As it is observable, the mean of all of the components of resilience in the posttest of experimental group is more than the pretest. Also in the follow-up level the dimensions of resilience have higher scores than the pretest.

Before analyzing the research hypotheses and determining the effectiveness of therapy it must be noted that required assumptions (multi co linearity, linearity, outliers, skewness, kurtosis, and normality of data, measuring the co-change variables, reliability of co-change variables, homogeneity of slopes of regression, homogeneity of variances, matrix of variance-covariance) must be surveyed and confirmed. Results of ANCOVA test for comparing the dimensions of resilience (self-confidence, personal view, flexibility, organized, problem-solving, interpersonal competence, having social relationship, active) in the posttest of experimental and control group are provided with eliminating the effect of pretest.

Table 2. Results of MANOVA test on the scores of posttest of components of resilience in experimental and control group with controlling pretest

	Value	F	Df of hypothesis	Df of error	Significance level
Pillai's trace	0.75	4.58	8.00	12.00	0.00
Wilk's Lambda	0.24	4.58	8.00	12.00	0.00
Hotelling's trace	3.05	4.58	8.00	12.00	0.00
Error largest root	3.05	4.58	8.00	12.00	0.00

As it is observable in table 2, the significance levels of all of the tests indicate that a significant difference exists between the experimental group and control group in at least one of the dependent variables. 8 univariate analyses of variance in MANCOVA context was conducted in order to find out that from which variable the difference between the two groups is created, and the results are provided in below table.

Table 3. Univariate analysis of variance in MANCOVA context on the dimensions of resilience in two groups of experimental and control group after adjusting the scores of pretest

	Resilience	Total squares	df	Mean squares	F	Significance level	Effect amount	Test power
Group	Self-confidence	4.92	1	4.92	1.21	0.28	0.06	0.18
	Personal view	1.92	1	1.92	0.66	0.42	0.03	0.12
	Flexible	0.73	1	0.73	0.13	0.71	0.00	0.06
	Organized	25.24	1	25.24	5.71	0.02	0.23	0.62
	Problem-solving	54.39	1	54.39	14.20	0.00	0.42	0.94
	Interpersonal competence	45.28	1	45.28	17.84	0.00	0.48	0.97
	Having social relationship	108.43	1	108.43	15.09	0.00	0.44	0.95
	Being active	24.17	1	24.17	3.47	0.07	0.15	0.42

As it is observable in table 3 the mean of 4 components of resilience including organized, problem-solving, interpersonal competence and having social relationship in experimental group and control group has a significant difference. This table shows that by eliminating the effect of scores of pretest there is a significant difference between the adjusted mean of organized, problem-solving, interpersonal competence and having social relationship based on group in the posttest level. Also there is no different between the adjusted mean of self-confidence, personal view, flexibility and being active in experimental group and control group. Generally based on these findings it could be said that solution-focused therapy in the posttest results in increasing the scores of organized, problem-solving, interpersonal competence and having social relationship.

The ANOVA test with repeated measures were conducted on the scores of pretest, posttest and follow up in order to determine this matter that whether the effect of intervention during time (from posttest to follow up) is stable or not. Table 4 shows a summary of results of dependent t-test for comparing the posttest, and follow up of scores of resilience.

Table 4. Dependent t-test in order to compare the posttest and following up the scores of resilience (m= 15)

Variable	Pairs differences					
	Mean	SD	Standard error	t	df	Significance level
Self-confidence	-3.40	3.97	1.02	-3.31	14	0.05
Personal view	-2.80	4.03	1.04	-2.68	14	0.01
Flexible	-3.33	5.05	1.30	-2.55	14	0.02
Organized	-3.26	4.49	1.16	-2.81	14	0.01
Problem-solving	-0.40	2.92	0.75	-0.53	14	0.60
Interpersonal competence	-1.53	3.11	0.80	-1.90	14	0.07
Having social relationship	0.06	5.35	1.38	0.04	14	0.96
Active	-1.06	3.78	0.97	-1.09	14	0.29
Resilience (total score)	-15.73	25.41	6.56	-2.39	14	0.31

As it is observable in table 4, a significant difference exists between the follow up and posttest in terms of mean of self-confidence, personal view, flexibility, organized in total scores of resilience. Regarding the fact that the mean of pairs' differences is negative, it could be said that the mentioned components had a significant increase in the follow up level. This matter indicates that solution-focused therapy in long-term could even result in increasing these components of resilience. In addition to that, there is no significant difference between the mean of posttest and the follow up in components of problem-solving, interpersonal competence, social relationship and being active. This indicates that the components remained stable during the follow up.

Conclusion

Comparing the dimensions of resilience (self-confidence, personal view, flexibility, organized, problem-solving, interpersonal competence, having social relationship, active) by the use of COVARIANCE analysis after eliminating the effect of pretest showed that generally a difference exists between the experimental group and control group in terms of dependent variable, which means the resilience. Also the results of dependent t-test for comparing posttest and following up the scores of resilience showed that the therapeutic effects remained at the follow up level.

Regarding the results it is observed that the solution-focused therapy has well changed the amount of resilience in problem-solving dimension. Changes in such dimension could be related to the concentration of solution-focused therapy on creating solutions and methods which result in solving the individual's problem. In fact, the solution-focused therapy has been designed in a way that the increase of individual's capabilities in the dimension of problem-solving has become justified and clear. The process of change in solution-focused therapy includes therapists-visitors cooperation for detecting, highlighting and increasing the exceptions in order to solve the problem. The fundamental criteria for solving the problem in solution-focused therapy consists of agreement of both therapist and the visitor in a language-based system that the problem has been solved or it has been considerably improved (Javanmiri, 2010). One of the other results of this research is that the solution-focused therapy has well changed the amount of resilience in the dimension of organized. A change in such dimension could be related to the concentration of solution-focused

therapy on creating solutions and methods during which the individual learns how to organize his/her life along with solving the problems of life. As we know, during the level of drawing and structuring the problem in solution-focused therapy the visitor and the therapist cooperate with each other in order to reach a common definition about the problem which is used as the purpose of change. This process of mutual negotiation is a process in which the therapist and visitor affect each other and they have mutual effects on each other, and ideally in this process they reach a common definition about the problem and ultimately organizing it (Farhang, 2011).

Also the results showed that the solution-focused therapy has well changed the amount of resilience in the field of social relationship and interpersonal competence. We can point to two main reasons of increasing the social relationship and interpersonal competence. The first reason is concentrating on the nature of solution-focused therapy. The second reason is concentrating on the features of group therapy. In explaining the solution-focused approach it could be said that individuals who previously used to think that their problems are complex and terrible, now participate in these sessions and they have hope and they figure out that they have the required abilities for solving their problems. By performing some of the techniques they would understand that they have the same amount of ability to have weak social relationships and also they have the same amount of ability to increase it. In the context of solution-focused therapy the question of miracle attracts the visitor's thoughts and imaginations and it changes the tone and the flow of conversation (Nau and Shilts, 2000). Questions related to resistance, exceptions and efficiency increase the cooperation and links between these individuals.

Lack of significant change of some of the components of resilience is a little bit hesitating. Maybe the reason for no significant change in some components such as flexibility, self-confidence and personal view is due to the resistance of these dimensions of resilience toward change. As a matter of fact, personal view, flexibility and self-confidence are more basic and underlying issues and they are severely affected by the individuals' personality, and changing them takes more time. In fact they are fixed personality traits and they have more stability during time and they are hardly changeable. About the lack of change in the dimension of being active also it could be referred to the nature of MS. In fact the MS patient rarely shows positive results in this dimension. Perhaps that is why there is no significant change observable in this dimension after the therapy. The same as all of the other researches the current research also has some limitations due to the terms and conditions related to the scientific researches and it is expected that the future researchers pay attention to these in the further studies. Lack of matching the sample individuals based on the intervention variables such as age, education level, and other demographic variables could also be considered as some of the main limitations of this research.

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