

The Effectiveness of Social Skill Training in Negative Emotional processing Information of Patients with Multiple Sclerosis

Marzieh Talebzadeh Shoshtari

Assistant Professor, Department of Psychology, Ahvaz Branch, Islamic Azad University
Ahvaz, Ahvaz, Iran

Corresponding author: Marzieh_Talebzadeh@yahoo.com

Zahra Dasht Bozorgi

Assistant Professor, Department of Psychology, Ahvaz Branch, Islamic Azad University,
Ahvaz, Ahvaz, Iran

Abstract

The research purpose is to investigate the effectiveness of social skill training in negative emotional processing information of patients with multiple sclerosis. The statistical population included all the patients with multiple sclerosis in Ahvaz city in 2014. The sample comprised 60 patients suffering from multiple sclerosis who were selected through convenience sampling and were randomly divided into two equal groups (experimental and control groups). The data gathering tool was semantic differential method. Moreover, the research used quasi-experimental with pre-test, post-test and control group design. The experimental group underwent seven, one-hour, weekly sessions of social skills training while the control group did not receive any training. Data were analyzed using multivariate analysis of covariance. Results revealed that social skill training is effective in decreasing the negative emotional processing information in patients with multiple sclerosis in the experimental group and significant between-group difference was observed.

Keywords: Social Skill Training, Negative Emotional Processing Information, Multiple Sclerosis.

Introduction

Multiple sclerosis is the most common chronic inflammatory disorder of the central nervous system in adults. The disease causes a wide range of symptoms depending on the location and characteristics of the central nervous system pathology (Doring et al., 2011). In this disease, the myelin in the central nervous system of the brain, optic nerve and spinal cord are injured. The most common age of onset is early adulthood and women are about twice more likely to develop this disease (Holland & Halper, 2005).

In addition to the involved biological mechanisms, psychological factor can also affect mental stress diseases such as MS. The broad spectrum of neurological- psychiatric aspects is what makes this chronic disease more critical in the field of psychiatry. Studies indicate that, in addition to fatigue and mood disorders, a wide range of psychiatric symptoms such as psychos, hallucinations, anxiety, personality disorders and cognitive dysfunction in multiple sclerosis patients are displayed. Personality changes are common in these patients and 20 to 40 percent of MS patients suffer from increased irritability or apathy as secondary changes of personality. MS disease can be regarded as a disorder in Axis III and as a risk factor in suicide by inducing depression, personality changes and cognitive inhibition failure (Aghayousefi et al., 2012).

These patients should cope with daily life stresses and unpredictable ups and downs. Therefore, the development of this disease can interfere with work, family life, social activities and relationships. The goal of psychological interventions is to help individuals cope with the above-mentioned challenges (Malcomson, Dunwoody & Low-strong, 2007). Regarding the chronic course of this disease and the diversity and the multiplicity of problems, most of the patients don't know how to control and cope with it and don't receive the appropriate supportive services. These patients tend to retain their independence despite their disabilities and achieve a successful life in spite of their limitations. In order to help patients cope with the disease and adapt to that, delivering counseling services about the nature of the disease, coping with the problems presented by the disease, improvement of relational skills and changing the patients' attitude toward the disease and their current condition can create hope and motivation in them to be able to address and handle the problems and accept the limitations they can't adapt to (Jahan Bakhshian & Zandi Pour, 2011).

According to the World Health Organization, it is predicted that after 2010, few people can have satisfactory life without social skills and assertiveness. These skills can be effective in achieving success in life through the manipulation of mental and individual capacity. Therefore, training these skills can enhance psychosocial capacity and enables them to think and analyze situations and have adaptable behaviors (Mangrulkar, Whitman & Posner, 2001). Social skills are affected by cultures and social groups that individuals are associated with and the amount of these skills plays an important role in social and behavioral health. Social skills are behaviors that enable one to interact effectively and avoid undesirable responses and are indicators of behavioral and social health of individuals. These skills are rooted in cultural and social contexts and include behaviors such as being a pioneer in a new relationship, asking for help and offering to help the others (Garmaroudi & Vahdani Nia, 2006).

Social skills are a wide range of behaviors such as communicating effectively and appropriately with others, providing helpful useful and appropriate answers, tending to show generous, empathetic and helpful behaviors, avoiding bullying and making fun of others (Matson, Fee, Coe & Smith, 2000). Social skills training is a technique through which people learn to remain calm and communicate appropriately and pleasantly in different situations. Reviews of the theoretical foundations of emotional information processing indicate the existence of two views. One is that people tend to process specific emotional stimuli that are consistent with their either current mood states or their ongoing personality traits. Most of the research is based on the "mood- congruency hypothesis". This hypothesis puts forward that when in good mood, people devote their attention to specific matters and interpret the situation from positive point of view; whereas, when in bad mood, everything seems disappointing and they tend to interpret the situations as bad (Semantic processing) (Rusting, 1998).

According to this approach, past meaningful experience along with a cognitive structure that is a combination of memories, attitudes and images exert effect on current life reactions and perceptions. Regarding the fundamental role of emotional processing in shaping the schemas, recognizing and changing the negative emotional information processing through social skills training can improve the mental health of patients suffering from MS. Research indicates that neural-psychological counseling can improve the social behavior of patients suffering from multiple sclerosis and employment of non-pharmaceutical therapies is helpful in the improvement of social behaviors' problems induced by this disease (Benedict et al, 2000).

Different studies carried out by Amani & Hadian Hamedani, 2008; Kakia, 2010; Khalatbari et al., 2010; Attari et al, 2005 have shown the effectiveness of social skills training. However, carrying out a study on the effectiveness of social skills training in negative emotional information processing of patients with multiple sclerosis seems to be of crucial importance. Therefore, the present study aimed to investigate the effectiveness of social skill training in negative emotional processing information of patients with multiple sclerosis.

Method and materials

The present research employed a quasi-experimental with pre-test, post-test and control group design. The statistical population included all the patients suffering from multiple sclerosis who were the members of MS association in Ahvaz City in 2015. The entry criteria were being the age range of 20 to 40 years old, MS diagnosis of relapsing-suppression, being in the suppression stage, not having received psychological therapies prior to the treatment, a minimum degree of BA and having filled out the consent form to enter the research. Based on these criteria, our sample comprised 60 patients suffering from multiple sclerosis who were selected through convenience sampling and were randomly divided into two equal groups (experimental and control groups).

Semantic Differential test was designed and developed by Osgood et al (1975). This test measures the connotative meaning of processing. Factor analysis showed the emergence of three underlying components that have been named: Evaluation (four aspects and five scales), potency (two scales) and activity (two scales) and risk (two scales) (Isa Zadegan, 2009). The items are scored on 7-point Likert scale. The raw scores are separately estimated for each

aspect. The difference in concepts' profiles between two groups can be analyzed that is regarded as the D score or meaning distance. This test was designed by Marx (1965) in Maudsley Psychiatric Institute to observe and analyze three types of antisocial, obsessive-compulsive and normal individuals based on Osgood semantic differential technique. Fifteen emotional concepts from the continuum of emotional experience and three fields of anger-aggression, phobia-anxiety and love were voluntarily selected. In the research by IsaZadegan (2010), the reliability using test-retest method was obtained to be equal to .59 in the short term (one week). In the research by Ghamari Givi and Bashar Pour (2010), Cronbach alpha coefficient was obtained to be .85. The reliability of the test in the present research was obtained to be .87 using Cronbach alpha.

Thirty individuals in the experimental group underwent seven, one-hour, weekly sessions of social skills training while the control group did not receive any training. Social skills training sessions included the introduction of training, flexibility training, role playing, skill of apologizing, practice of refusal, social understanding skills, recognition of uncertainty and insistence, the dynamics of social behavior, skill of clarifying the messages of others, recognizing others' social states and strengthening the social support.

Results and findings

The results of descriptive findings have been presented in table 1.

Table 1- mean and standard deviation of semantic differential in the experimental and control groups in pretest and posttest

Variables	Stage	statistical index	Mean	SD	N
Semantic Differential of	Pretest	Experimental	746.20	46.08	30
		Control	734.03	45.46	30
Emotional Concepts	Posttest	Experimental	570.57	39.10	30
		Control	778.17	43.34	30

As observed in table 1, in the pretest, the mean and standard deviation of semantic differential in the experimental group were equal to 764.20 and 46.08, respectively. Moreover, the mean and standard deviation of semantic differential in the control group were equal to 734.03 and 45.46, respectively. In the posttest, the mean and standard deviation of semantic differential in the experimental group were equal to 570.57 and 39.10, respectively. Moreover, the mean and standard deviation of semantic differential in the control group were equal to 778.17 and 43.34, respectively. Levene's test was done in order to have the presumption of variance equality and the results have been presented in table 2.

Table 2- the results of Levene's test about the presumption of variance equality

Variable	F	First df	Second df	Level of sig.
Semantic Differential of Emotional Concepts	.486	1	58	.489

As observed in table 2, null hypothesis for the equality of variances have been confirmed in both groups. That is to say that the variances' equality is confirmed in the experimental and control groups.

Table 3- The results of one-way covariance analysis (MANCOVA) on the mean scores of semantic differential of emotional concepts in post test

variable	Source of change	SS	df	MS	F	level of sig.
semantic differential	Covariate	56708.23	1	56708.23	83.08	.0001
	Group	665360.08	1	665360.08	974.	.0001
	Error	36859.10	56	682.57		

As observed in table 3, there is significant difference between the experimental and control groups in terms of semantic differential of emotional concepts ($F=974.78$ and $P<.0001$) and therefore, the research hypothesis is confirmed. Put it differently, social skills training decreased the level of negative emotional information processing among the patients suffering from multiple sclerosis.

Discussion and conclusion

The results of table 3 indicated that there is there is significant difference between the experimental and control groups in terms of semantic differential of emotional concepts. It can be concluded that social skills training decreased the level of negative emotional information processing among the patients suffering from multiple sclerosis.

This finding is in line with the results of the studies by Benedict et al (2000), Amani & Hadian Hamedani (2008), Khalatbari et al., (2010), Attari et al., (2005) and Kikia (2010). People who have undergone social skills training learn how to be calm in different situations. For example, the skill of apologizing is a cooperative act that aims to make decisions for different issues, feelings of being helpful and control over the problems. Therefore, an individual who wants to use this technique learns to experience positive emotional processing. The increase in flexibility can help MS patients have more social support and it will also decrease their incapability in social behaviors. Most of the disorders have emotional background and are exposed to negative emotions such as phobia and depression. In fact, overestimation or exaggeration of emotional distress and psychosomatic symptoms lead to the

bias of information processing and it is hypothesized that this connotative bias in negative emotional matters is a reflection of a pathological factor for some disorders such as anxiety and depression.

Studies show that patients suffering from MS are several times more likely to develop such disorders and have increasing distress to adjust to their disease. Therefore, social skills training can improve negative emotional information processing and increases the life quality and psychological health of these individuals. One of the research limitations was the lack of follow-up study due to the time limitation. Therefore, it's recommended that more research with follow up be carried out.

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