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The Effectiveness of Reality Therapy on Psychological Capital and Sense of Psychological Cohesion in Patients with Multiple Sclerosis

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Abstract

Objective: This study aimed to examine the effects of reality therapy on improving psychological capital and sense of cohesion among Iranian Patients with Multiple Sclerosis.

Method: This study was performed in Tehran in 2021. Sampling was employed to select 36 participants who completed the Psychological Capital Questionnaire and Sense of Cohesion Scale in the pretest, posttest, and one-month follow-up stages. The participants of the experimental group underwent eight weekly 90-minute sessions to receive the online reality therapy; However, the control group received no intervention.

Results: Data analysis showed a significant difference in psychological capital and sense of cohesion in the experimental group compared to the control group (P< 0/05). There was a significant difference in three subscales of psychological capital (i.e., self-efficacy, resilience, and hope) and two subscales of the sense of cohesion (i.e., perceptibility and controllability) in Patients with MS in the experimental group (P <0.05), but no significant difference in optimism (a subscale of the psychological capital) and significance (a subscale of sense of cohesion) (P> 0.05).

Conclusion: Due to the effects of reality therapy on patients with multiple sclerosis, this psychological therapy can be employed to improve the psychological capital and sense of cohesion.

Keywords: Reality Therapy; Psychological Capital; Sense of Cohesion; Multiple Sclerosis.

Introduction

Multiple Sclerosis (MS) is a chronic neurological disease influencing specifically young adults, creating a set of physical, emotional, and cognitive symptoms that alter the quality of life (QoL) (Vanotti et al., 2021). Patients with MS (PwMS) face several psychological complications, such as depression and anxiety (Marrie et al., 2017), which lead to a loss of hope and optimism (Schiavon et al., 2017). In other words, MS reduces the resilience of patients; as a result, they lose self-efficacy (Jongen et al., 2015). In addition, PwMS are constantly exposed to a variety of stressful situations. Living with such a disabling disease requires constant adaptation to disabilities and dysfunctions daily, which creates a continual process of adjustment (Keramat Kar et al., 2019).

Psychological capital (PsyCap) is an important factor affecting the reaction of individuals causing adaptation to difficult living conditions and enabling people to cope better with stressful situations, to

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be less stressed, and to have high strength against problems. It is a hallmark of positive psychology defined by several characteristics, such as belief in one's ability to achieve success, perseverance in pursuing goals, a positive self-image, and persistent problems (Youssef–Morgan & Lutans, 2013). It is also characterized by having the necessary confidence and striving to succeed in challenging tasks (self-efficacy) and optimism, hope, and resilience (Lutans &Youssef–Morgan, 2017). Studies have shown a significant relationship between PsyCap and quality of life. PsyCap can be used to treat mental illnesses, enhance hope, effort, and resistance, strengthen the defense force, and increase psychological well-being (Luthans et al., 2007).

Another effective factor in dealing with psychological problems is the sense of cohesion (SoC). Some research showed that humans with chronic illnesses have a notably decreased SoC than healthful humans (Nilsson et al., 2000; Hildingh et al., 2008; Pusswald et al., 2012).

The SoC reflects a person's view of life and capacity to respond to stressful situations (Eriksson, 2017). It is considered an important personal strength and coping resource, serving to mitigate stress, improve health, and facilitate adjustment (Barni & Danioni, 2016). In this regard, SoC is a key concept referring to the individual's general life orientation. The main principle of this theory consists of three subcomponents: perceptibility (individual readiness to perceive the world), controllability (adequate perception of internal and external sources of external stimuli), and significance (challenge perception) (Antonovsky, 1987). SoC leads to the formation of beliefs that make the internal and external stimuli of the life path predictable and explicable. This personality trait makes a person use his resources and abilities to face a set of these stimuli and feel valuable (Arghabaei et al., 2018). SoC appears to be an especially critical variable in adapting to multiple sclerosis. The high degree of SoC makes it simpler to acknowledge the unavoidable troubles (Dymecka et al., 2021). A strong SoC correlates with a stronger capacity for coping with stress and challenges throughout one's life span, with both physical and mental health (Elfassi et al., 2016).

MS is a disease that threatens human health and efficiency MS is unpredictable and can›t be prevented and it›s additionally related to robust stress, so a high SoC might prove to be a very crucial variable that protects an individual through a long time of battling with a disease such as MS. In a study by Broersma et al. (2018), a high SoC predicted an increased QoL in PwMS and lower enacted and self-stigmatization. Additionally, Johansson et al. (2016) revealed that the SoC is a predictor of depressive symptoms and mood in a cohort of PwMS.

A recent randomized controlled trial found that the onset and exacerbation of MS could be delayed by controlling stressful life events and limiting their impacts. It can be expected that by conducting psychological counseling and interventions, the symptoms of the disease can be reduced and its progress delayed, the person's capabilities can be maintained and improved, and the patient can follow a normal process in life (Samani et al., 2007). Due to psychological problems, low levels of psychological capital, and the weak SOC in MS patients, it is necessary to employ psychological approaches to promote these variables and enhance treatment. In this research, reality therapy (RT) is considered a psychological intervention. Seligman and Reichenberg (2007) said that RT can be applied to clients who are substance abusive, depressed, low self-esteem, bullied, victims of domestic violence, family conflict, adjustment disorders, high anxiety, emotional disorders, impulse control disorders, and behavioral disorders.

RT can be applied to all clients as all have basic needs regardless of religion, culture, and race. Patkar

(2018) claims that a wide range of problems can be dealt with using choice theory and lists many reasons why choice theory-oriented treatment is a better option than other forms. For one, therapists enable their clients to take charge of their own lives, instead of being passive witnesses to what is happening around them. This gives them a greater sense of control which is considered therapeutic to make a change. Secondly, choice theory assumes that all individuals are considered capable of improving their lives, which makes clients more motivated to change their problem behaviors. Lastly, all choice theory concepts can be used in culturally diverse ways which makes RT more applicable to various populations than other methods of treatment.

RT was first proposed by William Glasser (1962), according to whom everything is a behavior, and all our behaviors are motivated purposefully from within. Generally, all our behaviors are intended to satisfy one of our five basic needs: love and a sense of belonging, survival, power and progress, freedom and autonomy, and fun and pleasure (Glasser, 1999). RT is different from most types of psychotherapy in that it focuses on the present and helps people understand that they can choose a better future. The basic concept of Reality Therapy is responsibility (Schoo, 2008). According to this approach, in addition to being responsible for his/her actions and behaviors, a person must also take responsibility for his/her thoughts and feelings.

Moreover, a person cannot consider himself/herself a victim of the past and present unless he/she wishes to. Therefore, RT helps clients take responsibility for their behaviors instead of considering themselves victims (Wubbolding, 2017). MS is a progressive disease that causes a gradual loss of the patient's abilities. Therefore, Glasser employed the control theory to prove that people would be able to control their own lives by using internal control instead of external control.

This research aimed to investigate the effectiveness of reality therapy on psychological capital and sense of cohesion in Patients with Multiple Sclerosis. As per the knowledge of the researcher, until now, no research has been found that studies the effect of reality therapy on the psychological capital and bodies of patients in Iran. On the other hand, in MS sufferers, there is a kind of extreme attention to physical and behavioral symptoms, and also this disorder has a neurological origin. However, reality therapy believes that the problem that causes a person's discomfort is not always due to a mental disorder, and it may originate from the inability to satisfy his psychological needs. Reality therapy tries to separate the client from the behavior. Therefore, this treatment package can compensate for the weakness of people with MS, which is considered a type of innovation in dealing with this disorder. To investigate this goal, the following hypotheses have been proposed:

Reality therapy significantly increases the sense of coherence in patients with multiple sclerosis.

Reality therapy significantly improves various dimensions of the sense of coherence (comprehensibility, manageability, and meaningfulness) in patients with multiple sclerosis.

Reality therapy significantly increases psychological capital in patients with multiple sclerosis.

4. Reality therapy significantly improves various dimensions of psychological capital (self-efficacy, hope, optimism, and resilience) in patients with multiple sclerosis.

Method

Design

This quasi-experimental study, with 1 control and 1 intervention group, was conducted on a sample of Patients with MS in Tehran, Iran, in 2021. The ethics code (IR.IAU.SRB.REC.1400.210) was obtained from the Ethics Committee of Medicine Faculty at

the Islamic Azad University of Medical Sciences of Tehran in coordination with Sina Hospital. Then, patients in intervention groups received eight weekly sessions, while the control group received nothing. All participants were assessed in three phases(pretest, posttest immediately after intervention sessions, and one-month follow-up) through the PsyCap Questionnaire by Luthans and the SOC Questionnaire by Flensberg et al. The data analysis was conducted using SPSS 23. For this purpose, an analysis of covariance was used. After the end of the treatment, group therapy sessions were provided for the control group (conscious considerations and consent forms were obtained before the process started).

Participants

A convenient sample of PwMS who were referred to an MS Clinic of Sina Hospital was approached and randomly assigned to the study groups. experimental studies usually use samples with 15-20 participants for each group (Sarmad et al.,2012; Farmani et al., 2015), the sample size was considered 36 participants. The samples were selected by available method based on the inclusion criteria and randomly divided into two groups (control and intervention, 18 patients in each group (10 females and 8 males)). This study was conducted on online due to the difficulties caused by the COVID-19 pandemic.

The inclusion criteria were as follows: definitive MS diagnosis by neurologist type of the relapsing-remitting MS (RRMS) and experiencing an EDDS below 4 (disability assessment scale), being aged 20–45 years, and no simultaneous psychological interventions, consent to participate in the research. Furthermore, the exclusion criteria were: having acute or chronic mental disorders and having moderate-to-severe cognitive impairment (with the diagnosis of a clinical psychologist), taking medication, suffering from other physical illnesses, not cooperating in any training, not doing the homework presented in the sessions, and being absent for more than two sessions.

Measures

Psychological Capital Questionnaire (PsyCapQ):

This questionnaire includes 24 questions and four subscales of hope, resilience, optimism, and self-efficacy; each subscale has six items, and the responses are based on the 6-point Likert scale (from absolutely disagree to agree). The validity of the questionnaire has been confirmed in various studies (Luthans et al., 2007). Using factor analysis and structural equations, Luthans (2007) reported the Chi-square ratio of this test as 24.6 and CFI (Comparative fit index) and RMSEA (Root mean square error of approximation) statistics of this model as 0.97 and 0.08, which confirmed the factor validity of the test. Luthans et al. (2007) reported Cronbach's alpha of each subscale (i.e., hope, resilience, self-efficacy, and optimism) at 0.8. This questionnaire was translated in Iran by Golparvar, and its face validity, content validity, and reliability are confirmed. The reported reliability in Golparvar's study for self-efficacy, hope, resilience, and optimism are .91, .89, .83, and .70, respectively (Golparvar & Jafari, 2013).

Sense of Cohesion Questionnaire (SoCQ):

This questionnaire was revised and used by Flensburg (2006) based on its original version developed by Antonovsky. It is a 35-item scale with three or five options. This questionnaire consists of three subscales of perceptibility, controllability, and significance that are not specified in the translated version. The score range of this questionnaire also fluctuates between 35 and 105. In Iran, this questionnaire was first translated from English into Persian. It was translated from Persian into English for use. Flensberg also confirmed the validity of this

questionnaire in terms of content and structure. To evaluate its reliability, he reported Cronbach's alpha in two studies (87% and 86%) (Alipour & Sharifi, 2012).

Reality Therapy (RT)

RT sessions (Eskandari, 2020) held online weekly (90 min) for eight sessions based on Glaser›s theory according to previous studies [Table 1].

Table 1. The contents of the training sessions based on Glaser's Theory (Eskandari, 2020).

Session	Content
1	- Teaching the differences of a theory, a strategy, and a behaviour - Explaining the difference between internal control and external control - Discussing the quadruple control conflict
2	- Why do humans behave? - What is the purpose of human behaviour? - Explain and identify the needs of group members.
3	- What is the quality world? How is it related to the needs? - On what basis is the motivation or issuance of behaviour formed?
4	- What is the perceptual world? How do people lose their balance? - How and on what basis do people look at the real world?
5	- Explaining the components of behaviour (thought, action, feeling, and physiology). - Explaining the method of controlling people on the cycles of the behaviour machine.
6	- How do people come up with innovative ways to achieve their goals? - How does the behavioural system lead to reactions such as anger and depression?
7	- Training the questioning process based on the principles of the reality therapy. - Explaining the art of questioning oneself.
8	- Setting goals based on a responsible, effective life. - Writing smart goals based on internal control and responsibility.

Results

Table 2 represents demographic characteristics of the study subjects.

[Table 3] reports mean and standard deviation of research variables by groups in three stages of measurement in three stages of implementation.

According to Table 3, the means of psycap, SoC, and their components in two groups in the first stage of measurement were nearly the same; however, they were different in the second and third stages.

To investigate the effect of reality therapy on

Table 2. Demographic characteristics of study participants.

Variables	Number	Experimental Group		Control Group		p
		Percent	Number	Percent		
Age	20–30	9	50	7	38.89	0.769
	31–35	5	27.8	5	27.78	
	36–45	4	22.2	6	33.33	
Gender	Female	10	55.6	10	55.6	1
	Male	8	44.4	8	44.4	
Education Rate	Associate Degree	2	11.11	3	16.67	0.932
	Bachelor's Degree	9	50	8	44.44	
	Master's Degree and Higher	7	38.89	7	38.89	

Table 3. mean and standard deviation of research variables by groups in three stages of measurement.

	Experimental group			Control group		
	Pretest (Mean ± SD)	Posttest (Mean ± SD)	Follow-up (Mean ± SD)	Pretest (Mean ± SD)	Posttest (Mean ± SD)	Follow-up (Mean ± SD)
Hope	26.68±4.61	32.894.71±	31.784.63±	26.343.23±	26.44±3.24	28.39± 6.36
Resilience	25.06±4.75	30.785.91±	30.675.19±	25.174.03±	25.265.2±	25.068.27±
Optimism	24.54.69±	26.065.43±	25.94±3.18	24.723.85±	24.173.81±	24.395.23±
Self-Efficacy	25.392.38±	31.53.55±	30.173.96±	25.173.27±	25.223.25±	26±5.1
psycap	101.6213.52±	121.2217.61±	118.5613.66±	101.410.68±	101.0912.04±	103.8322.64±
Perceptibility	2.2±.32	2.580.3±	2.50.24±	2.210.21±	2.130.31±	2.180.31±
Controllability	2.250.28±	2.49±0.33	2.540.23±	2.230.21±	2.150.27±	2.2±۰.34
Significance	2.160.45±	2.45±0.5	2.440.62±	2.140.47±	2.040.55±	1.990.62±
SoC	2.210.24±	2.50.29±	2.490.27±	2.19±0.23	2.11±0.3	2.120.36±

psychological capital and its dimensions in patients with multiple sclerosis, covariance analysis was performed as follows. First, the assumption of equality of variances was evaluated.

Table 4. Levene's Test of Equality of Error Variances

Dependent Variable	F	df1	df2	Sig.
Psychological Capital	1.836	1	34	.184
Hope	.662	1	34	.421
Resilience	.763	1	34	.389
Optimism	1.036	1	34	.316
Self-Efficacy	.764	1	34	.388

The results of Levin's test show that the assumption of equality of variances of the two groups of society has been observed in the post-test stage regarding the variable of psychological capital and its dimensions ($p>0.05$). The next assumption was the homogeneity of the regression slopes, which was observed due to the non-significance of the interaction effect of F=2.330 and sig=0.128. Similarly, the assumption of homogeneity of variances was examined with the White Test for Heteroskedasticity. According to the results of the Chi-square test = 3.713 and sig = 0.715, this assumption was also met.

Based on the results of the table, between the results of the covariance analysis of the effect of reality therapy on the psychological capital of the two experimental and control groups in the post-test stage and the follow-up stages, a significant difference is observed ($p<0.05$). So, reality therapy affected the psychological capital. The extent of the effect of training in the stage after the test was 0.320,

Table 5. Tests of Between-Subjects Effects

Phase	Source	Sum of Squares	df	Mean Square	F	Sig.	Eta	Observed Power
Post-test	pre- test	3.354	1	3.354	.014	.906	.000	.052
	group	3645.763	1	3645.763	15.552	.000	.320	.969
Follow-up	pre- test	73.785	1	73.785	.206	.653	.006	.073
	group	1943.410	1	1943.410	5.428	.026	.141	.619

and in the follow-up phase, it was 0.141. In 32% of the individual differences in the two test and control groups are determined by group membership in the post-test stage and 14% in the follow-up stage, the statistical power shows that the sample size was sufficient to investigate.

According to the contents of the above table, by removing the effect of the pre-test scores, the difference between the averages of the post-test scores in all dimensions of psychological capital except optimism in the two experimental and control groups is significant ($p<0.05$); therefore, the effect of reality therapy on this areas have had an effect. This effect is significant in the follow-up phase in two dimensions of psychological capital dimensions (Resilience and Self-Efficacy) in both experimental and control groups ($p<0.05$) therefore the effect of reality therapy has affected these areas. The statistical power of all the dimensions also shows that the sample size was sufficient to investigate these dimensions.

Table 6. Univariate Tests

Phase	Dependent Variable		Sum of Squares	df	Mean Square	F	Sig.	Eta	Observed Power
Post-test	Hope	Contrast	376.406	1	376.406	22.242	.000	.426	.995
	Resilience	Contrast	254.964	1	254.964	8.315	.007	.217	.797
	Optimism	Contrast	33.531	1	33.531	1.608	.215	.051	.233
	Self-Efficacy	Contrast	317.652	1	317.652	34.782	.000	.537	1.000
Follow-up	Hope	Contrast	94.670	1	94.670	2.820	.103	.086	.369
	Resilience	Contrast	297.674	1	297.674	5.958	.021	.166	.656
	Self-Efficacy	Contrast	164.751	1	164.751	7.466	.010	.199	.753

To investigate the effect of reality therapy on the sense of cohesion and its dimensions in patients with multiple sclerosis, a covariance analysis was performed. First, the assumption of equality of variances was evaluated.

Table 7. Levene's Test of Equality of Error Variancesa

Dependent Variable	F	df1	df2	Sig.
Sense of Cohesion	.053	1	34	.819
Perceptibility	.126	1	34	.725
Controllability	.344	1	34	.561
Significance	.012	1	34	.913

The results of Levin's test show the assumption of equality of variances of the two groups of society

Table 8. Tests of Between-Subjects Effects

Phase	Source	Sum of Squares	df	Mean Square	F	Sig.	Eta	Observed Power
Post-test	pre- test	.013	1	.013	.143	.708	.004	.066
	group	1.403	1	1.403	15.454	.000	.319	.968
Follow-up	pre- test	.341	1	.341	3.638	.065	.099	.457
	group	1.259	1	1.259	13.418	.001	.289	.945

have been met in the post-test stage regarding the variable of Sense of Cohesion and its dimensions (p>0.05). The other assumption, the homogeneity of the regression slopes, was observed due to the non-significance of the interaction effect of F=1.475 and sig=0.735. Also, the assumption of homogeneity of variances was evaluated with the White Test for Heteroscedasticity, and the results of the Chi-square test = 2.825 and sig = 0.538 show this assumption is met.

Based on the results of the Table, between the results of the covariance analysis of the effect of reality therapy on the Sense of Cohesion of the two experimental and control groups in the post-test stage and also the follow-up, a significant difference is observed (p<0.05); so the reality therapy affected Sense of Cohesion. The extent of the effect of training in the stage after the test was 0.319, and in the follow-up phase, it was 0.289. 32% of the individual differences in the two test and control groups are determined by group membership in the post-test stage and 28% in the follow-up stage, the statistical power shows that the sample size was sufficient to investigate.

Table 9. Univariate Tests

Phase	Dependent Variable		Sum of Squares	df	Mean Square	F	Sig.	Eta	Observed Power
Post-test	Perceptibility	Contrast	1.735	1	1.735	20.009	.000	.392	.991
	Controllability	Contrast	1.072	1	1.072	11.473	.002	.270	.907
	Significance	Contrast	1.568	1	1.568	5.894	.061	.160	.652
Follow-up	Perceptibility	Contrast	.910	1	.910	12.168	.001	.282	.922
	Controllability	Contrast	1.050	1	1.050	12.325	.001	.284	.925

According to the contents of the above table, by removing the effect of the pre-test scores, the difference between the averages of the post-test scores in all dimensions of Sense of Cohesion, except significance in the two experimental and control groups, is significant (p<0.05). Therefore, the effect of reality therapy was significant. This effect was meaningful in the follow-up phase in two dimensions of Sense of Cohesion dimensions (Perceptibility and Controllability) in both experimental and control groups (p<0.05); therefore, the effect of reality therapy has affected these areas. The statistical power of all the dimensions also showed that the sample size was sufficient to investigate these dimensions.

Discussion

This study aimed to evaluate the effects of RT on PsyCap and SoC in PwMS. The research results indicated the positive effects of RT on PsyCap and the components of hope, self-efficacy, and resilience. It also improved SoC and the components of perceptibility and controllability.

Regarding positive effects on PsyCap, the results of this study are consistent with the findings reported by Bahadori Khosroshahi & Habibi Kalibar (2017), and Sadeghian et al. (2020).

Studies indicate that an individual's inability to cope with stress causes a significant percentage of psychological and physical conditions (Piko, 2001). Burns et al. (2014) reported that stress would exacerbate the symptoms of MS.

PsyCap is a component used in this study to improve the psychological problems of PwMS. It helps a patient use his/her intellectual energy to pay attention to the positive features of his/her experience. In other words, PsyCap measures a patient's positive psychological aspects and emphasizes strengths instead of focusing on weaknesses.

According to the literature, RT can reduce stress,

anxiety, and psychological problems of patients in addition to affecting the process of changing the course of the disease (Farmani. et al., 2015). RT is centered around the fundamental principle that we have the power to control our own lives through choices. The theory emphasizes that external control has little effect and instead proposes that an internal locus of control is responsible for driving all human behavior. All we do from the minute we are born until the day we die is make choices that reflect an attempt to match pictures in our quality world and fulfill our basic needs. (Rapport, 2019; Patkar, 2018). Furthermore, this approach emphasizes a patient's ability to focus on his/her needs through rational and logical processes (Wubbelding, 2017).

The main principle of RT is that everyone is responsible for his/her own life, actions, behaviors, and thoughts. Thus, it helps patients take responsibility for their behaviors and lives despite all the limitations that they face. It also helps them not go back in time and not blame others for their mistakes.

Therefore, this approach helps patients identify their basic needs and shoulder the responsibility for meeting their needs by changing the desire and perception to increase the PsyCap in patients.

Moreover, if the subscales of the PsyCap (i.e., hope, resilience, and self-efficacy) are regarded as separate components that have undergone positive changes during the intervention process, the results of this study are inconsistent with the findings reported by Heydarpour et al. (2018), Law et al. (2015), Ramezani and Ehteshami (2015), and Watson et al. (2014).

Staudinger et al. (2005) showed that the feeling of having control over events and high self-efficacy increases the level of psychological well-being and satisfaction with life.

According to the analysis of self-efficacy, this component affects people's health. If a person believes that he/she can adapt to the new situation, he/she feels less stressed about that situation. Therefore, when a person has a positive belief in his/her ability to cope with the disease and the relevant problems, this belief can have positive effects on the treatment process.

RT indicates that the thought patterns and bad behavioral habits leading to an individual's failure should be broken by new actions and behaviors. Since other authorities cannot use the past as a criterion for identifying their bad behaviors and taking on new and good habits, it improves self-efficacy.

PwMS can become frustrated as a result of uncertainty, fear, and anxiety. Life expectancy is considered an essential adaptation mechanism and a potentially influential factor in adaptation and recovery in chronic diseases such as MS (Nakatsuka et al., 2020). Hope helps people as an essential source of coping in the face of challenging and stressful situations (Madan & Pakenham, 2014).

Teaching and learning this theory leads to our freedom in all aspects of life and keeps the light of hope alive in our hearts that "we are not the result of external forces and factors, we are not victims of our past, we are not the toys of the underlying layers of the brain and hormones. We choose our behavior and have done so far. External factors do not play a major role in our fate and behavior as the psychology of stimulus-response external control believes.

Resilience is characterized by the ability to achieve, retain, or recover a degree of physical or emotional health after adversity (Ploughman et al., 2020). PwMS has reported that higher levels of resilience are associated with healthy behaviors and a more successful adaptation to changes in the lives of the patients that result from their illness (Silverman et al., 2017).

RT training can also cause different changes in attitudes and beliefs and lead to the development of appropriate thinking patterns. Therefore, patients can

learn how to recognize their irrational evaluations. It empowers people to deal with problems in advance, take the necessary actions to correct mistakes, overcome difficulties, move with the flow of life, and enjoy their social relationships, jobs, and leisure activities. Hence, this therapy reduces stress, increases resilience, and improves the QoF. Coskun et al. (2014) concluded that people with high resilience would be very resilient and flexible, for they could properly overcome a variety of personal problems, disasters, and crises.

According to the results of this study, the optimism scores in the posttest and follow-up in the experimental group did not increase significantly compared to those of the pretest and the control group. Moreover, if SoC and the subscales (i.e., perceptibility and controllability) are regarded as separate components with positive changes during the intervention process, it can be explained as below:

Various studies have shown that PwMS employs ineffective coping techniques (Milanlioglu et al., 2014). The importance of the SoC for the functioning of people with chronic diseases has been demonstrated in many previous studies. Studies show that SOC is an important protective factor in the first year after cancer diagnosis (Boscaglia & Clarke, 2007). It was found that SoC makes the disease perceived as less threatening (Gerasimcik-Pulko et al., 2009) and less stressful (Gustavsson-Lilius et al., 2007) and can act as a buffer protecting against the harmful effects of perceived stress (Koushede et al., 2011; Koushede et al., 2012). Perceptibility denotes the cognitive control over one's environment, and the accessibility of one's coping resources, and controllability refers to a person's sense of when available resources are sufficient for him/her to adequately respond to the needs and demands arising from internal and external stimuli.

MS is considered a stressor of particular intensity and inter alia due to the wide range of symptoms that occur during its duration. Dudek and Koniarek (1996) indicate that the effect of SOC is most important in people who are under the influence of strong stress. Stern et al. (2021) indicate SoC can be considered an outcome of an efficient intervention to manage MS problems. The authors believe that strong SOC is especially important when the individual experiences very difficult situations, such as having MS.

Clients engaged in RT focus on learning and practicing choice theory. Through the therapeutic process, they learn how to choose effective behaviors to express their relational needs and how to get along well with people they need and want in their lives (Glasser, 1998). The emphasis of choice theory is to help clients concentrate on what they can control in their relationships and realize that focusing on what they cannot control is ineffective and unproductive to counseling. Reality counselors do not focus on self-defeating behaviors, such as faultfinding, complaining, blaming, or criticizing. Instead, these counselors embrace five key characteristics to assist clients in understanding their needs, which include emphasizing choice and responsibility, rejecting transference, keeping therapy in the present, avoiding focusing on symptoms, and challenging traditional views of mental illness (Glasser, 1998, 2000a). In an attempt to do this, the counselor keeps the focus on the aforementioned concepts, which helps clients accept responsibility and recognize their role in creating change (Halbur & Halbur, 2011). Furthermore, the counselor works to determine if the clients' future actions will bring them closer to the significant people in their lives.

A primary goal of RT is to help clients connect or reconnect with people in their quality world (Glasser, 1998). Reality counselors assist clients with this process by helping them learn to make responsible choices while fulfilling all their basic

needs (Corey, 2013; Glasser, 1998, 2000a). The reality counselor functions as a teacher or mentor and challenges clients to examine their choices and current behaviors (Glasser, 2000a). Through questioning, reality counselors engage clients in a self-evaluation process so that they can evaluate their behaviors, perceptions, wants, needs, and action plans. A major role of the reality counselor is to instill a sense of hope so that clients feel that change is possible. In this manner, the counselor is an advocate working with their clients throughout the counseling process (Wubbolding, 2000). Advocacy helps to create a therapeutic alliance between counselor and client in which the counselor establishes a trusting, understanding, and supportive environment (Wubbolding & Brickell, 2009); this alliance is crucial to establishing involvement between the counselor and client in RT (Corey, 2013; Wubbolding, 2000). According to RT, a therapeutic alliance helps the clients feel free to try new behaviors and express themselves authentically in a challenging and supportive environment (Glasser, 1998; Wubbolding, 2000). In this way, it improves a patient's ability to deal effectively with stress, enables effective coping strategies, and increases SoC, Perceptibility, controllability, and the likelihood of psychological well-being.

Conclusion

In general, we can conclude that the disorder in coping with diseases such as MS often leads to mood problems and feelings of self-blame in these people, which is due to the loss of myelin tissue in some parts of the brain. Therefore, interventions based on psychotherapy can be helpful for PwMS. By expressing their concerns and anxieties to psychotherapy specialists, patients can design the necessary help and guidance for the way they think or change their behavior to develop the required ability to get rid of mental and emotional problems related to this disease. The results of this research prove that treatments such as RT can work well in reducing the symptoms of these patients. Thus, based on the present study, RT improves PsyCap, SoC, and the psychological status of PwMS, which in turn reduces the rate of recurrence in these patients. This can be used as an effective approach in addition to medication alone with an important role in improving the quality of life of these patients. In the present study, some specific limitations ought to be pointed out. First, our study activities were limited to the MS Clinic of Sina Hospital, which may virtually limit the generalizability of our findings. A single-clinic patient population cannot represent the broader MS population. Second, we did not include the duration since diagnosis. The time elapsed living with MS can influence the variables under study to a great extent; not including it may have biased the findings obtained. Third is the cross-sectional design of the study. This reduces our chances of designing inferences of causality or noting changes and developments in variables over time. Only longitudinal studies in patients for a longer time will firmly establish the role of RT in predicting the variables studied in PW MS. Lastly, we would like to suggest that future studies should also incorporate analyses of intermittent groups consisting of patients at various stages and spectrums of the disease. Such a perspective would increase subtlety and complexity in the understanding of the impact and outcomes of interventions studied.

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Conflict of Interest

The authors declared that there was no conflict of interest in this manuscript.

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