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### Multiple Sclerosis & Social support

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#### ABSTRACT

MS is a disease of the central nervous system that has created many challenges in the psychological adjustment of patients around the world. The aim of this study was to identify the predictors of adherence to treatment in patients with multiple sclerosis of MS society in Tehran in 2013. The above research method is a descriptive correlation method. The sample consisted of 120 patients with MS and the MS society in Tehran that were chosen through accessible. For all patients, demographic, adherence MS patients, general self-efficacy, character Neo - short form of depression, quality of life, anxiety, positive and negative affect Panas, social support of Phillips and feedback questionnaires were completed. Data were analyzed using multivariate analysis and discriminant analysis and logistic regression analysis. The findings suggest that following the treatment has a significant difference with depression neuroticism, extroversion, conscientiousness appetite, quality of life, social support, and anxiety in the family in  $\alpha=0.05$ . The results show that following the treatment of MS patients has a direct relationship with psychological factors and to better treatment for patients in addition to medication, the psychological counseling also should be done, to reduce the anxiety and depression and increases self-efficacy and improve their quality of life.

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### INTRODUCTION

Briefly Multiple Sclerosis called as MS that is a chronic disease of the nervous system that affects parts of the brain and spinal cord. Some patients with MS may lose some of their ability because of the disease. It is more common in young people, and with the clever and active community involvement. The cause of this disease is not fully understood and a complete cure is not provided. However, having the information on symptoms, understanding the aspects of personality of patients and protective measures can be effective in restoring the patients to active and productive live.

MS is an autoimmunity disease (immune system against the host and not an external factor) that affects the brain and spinal cord and is generally a disease of the central nervous system (CNS). In this disorder the myelin sheath (the protective coating around nerve cells) will be damaged and as a result the nerve signal speed decreases or stops. The nerve damage is caused by inflammation. Inflammation occurs when the body's own immune cells attack the nervous system. It can happen in any area of the brain, optic nerve and spinal cord occurs.

#### Statement of Problem:

MS is a chronic and debilitating disease that causes great disability in young adults and middle-aged individuals. It is commonly seen in young adults and occurs with various pathologic conditions of the central nervous system. From the pathological point of view, MS is characterized with several areas of inflammation in multiple sclerosis white matters, glial scar and central nervous system demyelination. Clinical course is variable from benign and asymptomatic to rapidly progressive and debilitating [19].

In recent years the prevalence of multiple sclerosis in the world has increased. The main cause of this disease is unknown, but some sources believe that its cause is the common role of genetics and the immune system in the presence of infectious agents, although the exact cause has not been provided yet to prove the

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assumption. MS imposed many economic costs on society and family, so that the America's National nerve diseases institution states, the annual cost of the disease in America is more than 2.5 million USD.

On the other hand, the disease threatens the condition of independence and ability to participate in family and community activities and they lack the competence and confidence about their body and their health suffers.

#### *The importance and necessity of research:*

Compliance with treatment recommendations is an issue that has long been existed between patients and clinicians and non-compliance is always an important and multi-faceted problem has been considered in the field of health.

Process compatibility with MS and the chronic diseases and following the treatment recommendations is influenced by three factors:

- (1) Factors associated with illness adaptability, flexibility, beliefs and attitudes, self-esteem, self-efficacy.
- (2) Factors related to disease severity, duration, predictability, controllability.
- (3) Social factors: social support, interpersonal relationships.

In patients with MS, there are several causes for the lack of following the treatment, including medication side effects, frequent uncomfortable needed doses, the efficacy of the drug or the patient relation with medication, self- efficacy, depressed mood, wimpy social and family support, cognitive problems, physical problems, self-injection of medications, pain during injections, skin reactions at the injection site, nausea and anxiety problems.

Due to the mentioned problems, following the treatment is important because it can reduce disease progression and morbidity and the risk of hospitalization and reduces neuropsychological disorders. However, following the treatment according to the type of treatment and the scale of treatment is different. Another importance of the research is being new. Being new to this study and to identify factors influencing following the treatment in patients with MS was first examined.

#### *Research objectives:*

- (1) Identification of predictors of adherence and non-adherence to treatment in patients with multiple sclerosis.
- (2) Determine the role of each of the predictors in the prediction of adherence and non-adherence to treatment in patients with multiple sclerosis.

#### *Research hypothesis:*

- 1- There is a significant difference between the independent variables (self-efficacy, personality traits, positive and negative affect, satisfaction with services, social support, anxiety, quality of life, depression, feedback drugs MS) in predicting group membership and lack of foresight.
- 2- There are significant differences between satisfaction with care and following the treatment and lack of following the treatment in patients with multiple sclerosis.
- 3- There are significant differences between social support and following or lack of following the treatment in patients with multiple sclerosis.

#### *Research questions:*

- (1) Whether social support is involved in following and lack of following the treatment of patients with multiple sclerosis?

#### *Definition of concepts*

##### *Social support:*

##### *Theoretical definition:*

Social support is defined as care, compassion, dignity and comfort and help that have provided by other individuals or groups.

Social support was most commonly applied for a major upset by people such as family members, friends, colleagues, relatives and neighbors and it consist usually of using a device, social assistance and information to help.

##### *Operational Definition:*

The grade that a person receives in the test of social protection of Phillips.

One resource that helps to adapt to the process of compatibility is the social support. Social support is defined as care, compassion, dignity, comfort and assistance to other individuals or groups and the resource which people cope with stress and enables compatibility.

Social support was most commonly applied for a majority of people are confused by people such as family members, friends, colleagues, relatives and neighbors, and this tool consists of emotional, social assistance and information to help. In general, social support is affected life satisfaction in two ways: The first method is a

direct or the general effect of social support on life satisfaction that is regardless of the level of distress experienced by the individual, affects life satisfaction. The second method involves indirect influence or the buffering impact that protects the individual of the negative effects of stressful circumstances. In fact, support is a mutual assistance that creates a positive impression of himself, self-acceptance, and hope, feelings of love and life satisfaction and reduces stress, all of which gives the person the opportunity to self-actualization and growth.

## *2 Theoretical Frameworks:*

Since 1970, the field of studies of social support, numerous studies can be performed. However, most studies have been conducted on the relationship between social support and health problems. This communication includes etiology of disease and mortality, immune system function, various physical and mental illness, recovery from illness; the treatment and prevention. For example, the study of Alameda County in California showed that those who had more social support with the same physical conditions, in the following years had half the risk of the death threats with a cardiac condition, such support resources. Also, a general study of the meta-analysis showed that the social support has a positive effect on physical health. The social support can reduce the harmful effects of stress stimulants on the immune system. This means, those who have more social support will have a stronger immune system and therefore have the longer delay to be patient and recover earlier. In general, studies have shown that the most important physical and physiological disorder caused by a deficiency or absence of social support include: nervousness and tension-type headaches (migraine), digestive disorders, loss of appetite, increased activity of the adrenal cortex, increased levels of cholesterol and blood urea, blood pressure, cardiovascular disease, and increased risk of mortality in general. In addition to physical health, most studies examined the relationship between social support and mental health and perceived the effect of social support on health, welfare and mental (Cornman, Goldman, Gleib, Weinstein, Chung-200 model of the major effect or direct effect).

According to this model, the positive effects of social support or lack of social isolation leads to an improved quality of life and there is a linear relationship between quality of life and social support. Fleming and Baum that are the known theorists have put forward the view that people who have more social support, their quality of life and health are higher.

Involvement in various social networks, including networks of friends and family and neighborhood connections, which provides support resources that individuals with higher uptake in these networks enjoy of support and subsequently better health and quality of life. According to studies by the model, those who involve in support networks are less depressed and have better mental health than those who did not have such a support network.

### *- Social support as a buffering of the stress:*

According to this model, the relationship between social support and quality of life of people depend on the level of stress and social support has no impact on quality of life directly, however, adjusting the effects of acute and chronic stress helps the individuals' health. In other words, if there is no stress or its level is low, social support and quality of life are not related, but under stress, social support acts as a buffering in the protective or detrimental effects of the operating pressure. Social support may increase the ability of people to cope with the pressure of getting the emotional and informational support and this improvement may lead to lower psychological and physical symptoms of illness.

### *MS and Social Support:*

The role of social support in MS patients is to assist in maintaining mental health. Social support effects on coping mechanism on emotional stress and daily functioning of patients and treatment. Also, Miller and Murphy, family reasons (economic, physical assistance, emotional support) are known to be effective in increasing networked support. Create a life expectancy of these patients and finding supportive resources is important for these patients. Social support may enhance patients' quality of life and reduce depression. MS patients due to physical disability need more emotional support from others. These patients do not get adequate support from their friends and family, as tiredness in the early stages of the disease, visual impairment, physical disability and the symptoms that cause some problems in their communication with others, but the family refused to accept the conditions or cannot understand it. If they provide the efficient support for them, not only does it reduce the amount of stress, the patient's recovery process will increase (Black, Grant, Lapsley, Rowson, 1994). Of course, their support should be correct and desirable for the patient. Families due to fear of falling their patient, provide a quick help to him, they cause an increase in disability of MS patients over the time. Social support should be positive and based on respect and the permission of patients then make him feel comfortable and confident his self-confidence will not be damaged and independency remains in him.

*Statistical descriptions of social support questionnaire (SSQ):*

As can be seen from the following table:

- The mean score for family support is (48/13 percent) more than the support of others (38/13%) and the support of friends (93/12 percent).
- A minimum of 4 and maximum of 19 of the respondents rated family support.
- Friends of the lowest points of support is among respondents 2 and the maximum 18.
- The lowest level of support from others in the respondents' rating of 5 and 18 is the highest rating.
- Range of social protection rating (the sum of the scores of three previous support) among respondents aged 0 to 66 is the minimum value of the R 15 and the maximum value is 53.
- Phillips social support mean grade among respondents was 79/39 and a standard deviation of 078/7.

**Table 40-4:** Statistics relating to the support of family, friends and others in the SSQ questionnaire.

SD	mean	maximum	minimum	Scale
3/442	13/48	19	4	Family support
3/403	12/93	18	2	Supporting Friends
2/481	13/38	18	5	Support of others
7/078	39/79	53	15	Social support

First hypothesis: There is a significant difference between the efficacy variables, personality traits, positive and negative affect, satisfaction with services, social support, anxiety, feedback, quality of life and depression in patients' adherence and non-adherence to treatment,.

*Discussion and conclusion:*

In this study, demographic factors, depression, personality traits, self-efficacy, patient satisfaction, positive and negative emotion, anxiety, quality of life, social support, and feedback of adherence to treatment in patients with MS were studied.

Based on the results, the following conclusions can be stated:

First hypothesis: There is a significant difference between the independent research variables (self-efficacy, personality traits, positive and negative affect, satisfaction with services, social support, anxiety, quality of life, depression, feedback drugs MS) in predicting group membership and lack of foresight of membership of a group.

This hypothesis was tested using multivariate analysis and there is significant difference according to multivariate analysis parameters in subjects with a significant level of 0/03 non-compliance and following the treatment with at least one of the research variables, and it can be concluded that there is a significant positive relationship between social support variables, family, mental health, vitality, activity limitation due to emotional problems, activity limitations due to physical problems, physical function, physical, mental, extroversion, conscientiousness there appetite and depression.

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