

## Relationship of happiness and quality of life in patients with multiple sclerosis (MS) disorder

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### ABSTRACT

Aim of this study was to determine the relationship of happiness with quality of life in patients with multiple sclerosis (MS). Study population consisted of all patients with MS in Zanjan and Qazvin cities that during first quarter in 1391 had referred to MS Society Of above cities, among them 100 patients using a stratified random sampling method were selected as sample size.

Used tools in this research were Oxford happiness inventory «OHI» (1989) and World Health Organization Quality of Life Questionnaire (1889). Present study was of descriptive researches and research design was of correlation type. In order to data analysis Pearson correlation and linear regression test were used. Results indicated that : This research finding indicates the importance of relationship between happiness and quality of life of patients with MS and happiness could explain high rate of changes in quality of life of MS patients.

**KEYWORDS:** happiness and quality of life.

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### 1. INTRODUCTION

Multiple sclerosis (MS) disorder is currently considered to be an autoimmune disorder that may be genetic or environmental factors involved in it. This disorder's nature and signs that appeared in various areas of sensory, motor and cognitive leaves profound effects on the social and psychological functioning of affected individual (Barzegar Kahnmoee et al, 2010).

MS characterized by myelin and scar damages inflammation symptoms. It may be with progressive or along with relapsing and remitting. multiple sclerosis lesions after trauma is second most common cause of neurological disability in early and middle adulthood, and its manifestation is variable from a benign disease to rapidly progressive and debilitating sickness (Harrison, 2005).

Quality of life includes all the functions of life, such as emotional, physical, chemical, pain, fatigue, and so on. This phrase is generally to variation in life range of people based on measurement of different body organisms; one of the important dimensions of individuals' quality of life is its psychological dimension. In general, quality of life for different people in different situations has various definitions, but it is primarily come back to people satisfaction of their life (Hosseini, 2011).

Quality of life is one of the signs, that it has been proposed for measuring health. In fact, since 1984, the World Health Organization declared that healthy is not only lack of disease but also a state of physical, mental and social complete welfare; so the experts were attracted to the quality of life importance (Hosseini, 2011).

Quality of life issue in different segments especially those with special physical and mental conditions, and facing the stress caused by that particular circumstances has high important (Hosseini, 2011).

Happiness is scientific name of people assessing from their life. People can studied and evaluated their lives as a whole judge (such as life satisfaction or feeling of pleasure) or in the form of measuring specific areas of their lives (Such as marriage or work) or their recent emotional feelings about what happened to them (pleasant emotions that are caused by positive assessments of personal experiences and low levels of unpleasant emotions that are caused by personal experiences negative evaluations) (Dayner, 2005, quoted by Naderi Far, 2009). Venhon (1997) is defined happiness as a set of emotions and cognitive evaluations of life and knows it in a degree of people quality of life that in general, evaluate positively, and it is constituted from cognitive, emotional, social, and emotional elements (Dayner et al, 2003). Also Pavet believe that people feel happier when they are with others.

Therefore, this study has been made with regard to importance of quality of life level in patients with multiple sclerosis, as a chronic and debilitating disease and with the aim of examining relationship between quality of life and happiness in patients with MS.

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According to provided information, this research seeks to answer this question is there any relationship between happiness and quality of life of patients with MS? If there is a relationship how much its rate is? According to study objective and research literature the following hypothesis was tested.

**Hypothesis:** There is a relationship between happiness and quality of life of MS patients.

## MATERIALS AND METHODS

Present study is of descriptive research. The study population included all patients with multiple sclerosis (MS) in Zanjan and Qazvin cities that during April, May and June in 2012 referred to above cities MS Association; They are a total of 200 people (110 patients in Qazvin, and 90 patients in Zanjan). Among them 100 patients were selected as sample size using a stratified random sampling method. The project design is a correlation. To gather information, Oxford happiness list (OHI) and the World Health Organization Quality of Life are used.

1. Oxford happiness list (OHI) was created by Argil and Lu in 1989. This list contains 29 statements in 4-option. The participants total score is from zero to 87 and has high reliability and validity (quoted from Kar, 2004). Argil, Martin and Krasland (1989) were reported alpha coefficient of 0/9 and Fornham and Bruwing (1990) also reported alpha coefficient of 0/87. In the study of Khanzadeh et al (2006) Cronbache's alpha was obtained 0/92.

2. WHOQOL quality of life questionnaire that is to assess individual quality of life in recent two weeks was made by the World Health Organization in collaboration with 15 International Centers in 1889. This questionnaire included 26 questions in four areas and has four subscales (including physical health, psychological health, social relationships and social life environment). High score in each subscale and higher total scale score indicate good quality of life. Score above 40 indicates the quality of life in this study is relative. Test reliability is reported by Coder Richardson method from about 0.61 to 0.96 and by test - retest from 0.77 to 0.87. (Evanzcope, 1989, quoted by Nejat, 2006). Gholami (2003) in his study has reported the reliability of questionnaire through Cronbach's alpha of 0.90. Asadollahi and Afshar (2000) were approved its reliability using Cronbach's alpha of 0.86.

### Research findings:

#### A) Descriptive findings:

Descriptive findings of this study include mean and standard deviations statistical parameters which are presented in Table 1.

Table (1). Descriptive Indicators of studied variables

variables	number	mean	Standard deviation	Maximum of scores	Minimum of scores
happiness	100	49/85	18/051	87	14
Quality of life	100	69/26	12/594	98	36

#### A) Findings related to research hypothesis:

This section includes hypothesis along with obtained results which is offered as follow.

**Hypothesis:** There is relationship between happiness and quality of life of MS patients.

To examine above hypothesis, Pearson correlation and linear regression test were used.

Table (2). Correlation matrix for happiness and quality of life

variable	happiness	Quality of life
happiness	-	
Quality of life	0/211*	-
	0/035	

According to above correlation matrix the relationship between happiness and quality of life ( $r=0.211$ ,  $p=0.035$ ) is approved. Thus, there is a significant positive relationship between happiness and quality of life.

Table (3). The results of predict variance of quality of life from prediction variable: happiness

Changes source variable		Squares sum	df	Squares mean	F	Meaningful level
Quality of life	regression	701/795	1	701/795	4/585	0/035
	remained	15001/445	98	153/076		
	sum	15703/240	99			

As it can be seen in above table obtained F for prediction variable of happiness is 4.585, that according to meaningful level it shows happiness variable can be a predictor of quality of life ( $p=0.035$ ).

Table (4). quality of life predicting regression

Criterion variable	Predictor variable	B	β	t	Meaningful level
Quality of life	(constant rate)	61/907	0/211	16/960	0/001
	happiness	0/148		2/141	0/035

based on variance and linear regression statistical index results between quality of life and happiness, amount of obtained t in above table is meaningful and according to t-statistics, it can be found that happiness factor by 95% possibility is positive predictive of quality of life. Regression linear equation to predict the quality of life from happiness factor is as follow:

$$\text{Quality of life} = 61.907 + 0.148(\text{happiness})$$

### DISCUSSION AND CONCLUSION

The present study was designed and implemented to answer this research question that is there any relationship between happiness and quality of life of MS patients?

After implementing considered questionnaires, it was observed that there is a relationship between happiness and quality of life of MS patients.

**Research Hypothesis:** There is a relationship between happiness and quality of life of patients with MS.

Based on obtained results and calculated F, it was determined that there is a correlation between happiness and quality of life of patients with MS and it can be found that happiness factor with a probability of 95% is positive predictive of quality of life.

This result is consistent with Abedi and Mirzaee (2006), Tashnizi Mirzaee et al (2009), Rohani & Manavipoor (2008), Lewis et al (2005), Abdolkhalk (2007), Shrayyan et al (2011) Ghaderi (2010), Keshavarz and Vafaian (2007) research results and with study of Neshatdost and et al (2007); and they have shown that happiness has positive and significant relationship with optimism, mental health and physical health and will improve quality of life.

Liubomirsky et al (2005) believe that happy people response to circumstances and events in more positive and more adaptive way, they have lower stress levels and stronger immune system and are more creative than unhappy people and response to circumstances and events in more positive and more adaptive way.

Nassiri and et al (2008) study showed that there meaningful correlation between meaningfulness of living with hope; happiness and life satisfaction and meaningfulness of life can increase happiness and life satisfaction.

Bitsko et al (2009) in a research on adolescents who survived from cancer found that happiness meaningfully influence both on quality of life of these adolescents and their treatment intensity.

It is clear enhancing happiness increase and improves the patients' quality of life and in contrast, improving quality of life plays many roles in increasing happiness.

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