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**IMPRESMENT SPIRITUAL INTELLIGENCE ON THE QUALITY OF LIFE AND
PSYCHOLOGICAL WELL-BEING INTO MULTIPLE SCLEROSIS PATIENTS**

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ABSTRACT

Multiple Sclerosis is a chronic disease and causes to deterioration of central nervous cells. Often it is appeared in young people and leads to physical limitations and psychological side effects in patients and it has influenced over their life quality and psychological well-being. Spiritual intelligence as a base of individual's belief plays a main role in different backgrounds of human being life especially to yield and promote mental health and life quality. The study aimed to explore the effect of instructing spiritual intelligence on life quality and psychological well-being in patients suffering from Multiple Sclerosis. The population was all patients suffering from Multiple Sclerosis in Bandar Abbas (N=124), and through a semi experimental plan 54 available participants were selected from patients with Multiple Sclerosis in Bandar Abbas and randomly were divided in two groups of evidence and intervention groups. Questionnaires on life quality sf12 and psychological well-being (RPWB) were used for mental assessment. Indexes of life

quality and psychological well-being were collected in three steps that are before intervention sessions, after the last session (fifteen sessions in two months), tracking them after two months and they were analyzed by using descriptive statistics , variance analysis test and continual measurement program. Results: show that indexes of life quality and psychological well-being significantly improved after intervention of spiritual intelligence in post-test and follow-up, also the two groups represented significant difference in situation of life quality and psychological well-being variables. Conclusion: based on our findings, we can conclude that spiritual intelligence was vulnerary impacted on the quality of life and psychological wellbeing into Multiple Sclerosis patients.

Keywords: Impresment Spiritual Intelligence, the Quality of life, Psychological well Being, Multiple Sclerosis (MS)

INTRODUCTION

Psychological health, marital satisfaction, desirable interpersonal performance and better life quality (Sibold & Hill, 2001; Huseini, Elyas, Krous & Ayeshe, 2010). Some psychologists have defined spirituality as the continual effort of people to answer reasons of life (Samadi, 2009). And Vogan (2002) believes that spiritual intelligence consists of individual's potential ability to understand the meaning of life and identity of his/her self. The concept of spiritual intelligence was discussed for the first time by Stevanz in 1996(Sohrabi, 2009) and later developed by Imonz in 1999. Spiritual intelligence combines spirituality and intelligence constructs into a new construct. In concept of spiritual intelligence, spirituality concept which means individuals' pursuit of holiness, awareness, moral, have

joined with intelligence concept means applying these concepts to adjust and amplify human welfare (Imonz,2000). Zohar & Marshall have studied about spiritual intelligence in his book entitled " spiritual intelligence: ultimate intelligence" and beside intelligence quotient and emotional intelligence considered it as the third intelligence that is the highest and the most ultimate intelligence of human beings (Zohar Marshall, 2000). If cognitive psychology is related to thoughts, and emotional psychology is connected with feelings, so spiritual intelligence is related to the being (Mack Mulen, 2003).

This issue is so important in human life especially for chronic patients including Multiple Sclerosis (MS), it is one of the most common chronic diseases and often a

developmental one in central nervous system (Drew, Tippert, Starkey, 2008) and its cause is exactly unknown. MS is an autoimmune disease of nervous system in all ages (Denis, Mas Mouris, Silber and et.al, 2010) and the third cause of disability among adults (Vosouqi, 2008). Removing myelin of nerve fibers not only influences on sensory and motor systems, but also its symptoms may lead to signs and psychopathological disorders (Jandaqi, Neshat Doust, Kalantari and et.al, 2013). According to the literature it has been reported that there was low quality of life for these patients (Masoudi, Mohammadi, Ahmadi and et.al, 2010, Patti, Ciancio & Reggio, 2002, Zalweski, 2007). Also low quality of life has been reported in other chronic patients including positive-HIV (Piraste motlaq, Nikmanesh, 2013), diabetic patients (Saadat jou, Rezvani, Tabiei and Owdi, 2013), patients suffering from heart failure (Abedi, Alipour, Abdyazdan, 2011) and cancer patients (Mardani Hamoule, Shahraki Vahed, 2010).

Today life quality is in contrast with quantity and it is defined regarding wide aspects of health and it means the years of lifetime passed in health, satisfaction, happiness and enjoyment (Seligman, 1988). Concept of life quality is wider and more dynamic than health (Abdollahi, Mohammad

pour, 2008). According to health model, life quality should have several aspects including physical, mental-emotional, social, spiritual and occupational (Montagne et al., 2002). Today emerging and developing health psychology and positive psychology cause to change attitudes about disorders based on single factor model and medical framework, and researchers believe that it is better to take into account the defective lifestyles of individuated life for the formation and development of mental disorders and in order to give a treat, modification and adjustment of these styles, developing abilities and creating life satisfaction and psychological well-being are needed in people and societies (Seligman, 2000).

Psychological well-being explains positive emotions and public satisfaction with their lives and others in different scopes including family, education, job, etc. And presents two cognitive components representing individual's satisfaction of life and individual's assessment of various aspects of life and cognitive and emotional component. But a few methods have been proposed to reinforce the spiritual intelligence so far. For instance Bowl (2004) have presented an educational Package containing seven steps with practical exercises to improve spiritual intelligence

and briefly the steps were: awareness, meaning (sense), evaluation, being centered, vision, projection and mission. Considering that there are limited evidences about effectiveness of instructing spiritual intelligence (Sisk,2008, Green &Noble,2010,Hoseini,Elyas,Krovas and Aishah,2010), studies have reported the effect of spirituality and spiritual intelligence on life(Sawatzky,Ratner,Chiu,2005) and spirituality on psychopaths' health and personality (Unterrainer,Ladenhauf,Moazedi,2010).

But given that no research has been done about evaluation of spiritual intelligence and impact of its dimensions on mental status and life quality in patients suffering from multiple Sclerosis, hence the main purpose in this study is to explore the effect of instructing spiritual intelligence on life quality and psychological well-being in patients suffering from multiple sclerosis in Bandar Abbas.

MATERIALS AND METHODS

The current study was in a semi experimental plan by pre-test and post-tests with control group. The independent variable is the spiritual intelligence training that is applied only in the intervention group and its effect were measured scores of post-test on life quality and psychological well-being

variables among patients in the intervention group and were compared with control group.

The population were all 120 patients suffering from MS in Bandar Abbas, according to incoming criteria (citizen of Bandar Abbas, capable and interested in participating in educational program, deliberate agreement with participating in the study, to be unhealthy under medic recognition, no participation in training classes and similar methods to aforesaid intervention, also at least to be able to read and write) 60 available participants were selected and eventually 54 participants were selected by Cochran formula as the final sample and in random divided in two groups of 27 participants. A counselling session (to attract more cooperation, be informed about patients' various problems, anxiety, expectations for therapy, talk about state of being private insuch classes, secrecy,...) arranged before intervention sessions, then the training was completed in intervention group but there were no intervention in evidence group. Training sessions of intervention were influenced by (training spiritual intelligence including practical exercises such as awareness, meaning, evaluation, being centered, vision, projection and mission) in 15 sessions for 60 minutes in

each session and twice a week and finally post-test was done for both groups. Considering that the trainings are completed for Muslim population, tried to change courses and examples discussed in Bowl package (2004) into Islamic courses and examples and also the similarity of trainings to Islamic courses should be preserved (Marashi,Naami,Bashlide and et.al,2013). Afterward the groups were under control in three steps, before intervention, after completing intervention and two month after intervention but at the end of study four participants, two by each groups, were released due to mobility Problems and the final sample in each group were equal to 25 participants. The study is done in the second semester in 2013.

Variables and Scales

A questionnaire on Psychological well-being by Rif. The questionnaire was provided by Rif (1989) and consists of 77 questions and six small scales: Dominance on environment (19 clauses), purpose and orientation in life (13 clauses), self-acceptance (19 clauses), personal growth and flourishing (8 clauses), others' positive relations (8 clauses), independence (10 clauses). It is provided based on methods and principles of Psychology and to measure psychological well-being by Tabasi and

Zanjani (2005). Grading in Likert five scales were organized by items of: quite agree to quite disagree and 23 questions were graded by a reverse manner. Shojaei measured its durability by cronbach alpha and Tasnif that was 0/94 and 0/92 in order and also its superficial justifiability were admitted by correlation between questions and Rif well-being questionnaire (2002).

Life quality: form sf12 which is a moderated form of Sf36, was used to study about life quality and its justifiability and durability was measured about 85 percent in Iran by Montazeri et.al. The questionnaire consists of 12 questions for eight dimensions that is divided in physical small scale and mental small scale. The Physical small scale includes questions on physical performance (two questions), limited role due to physical problems (two questions), public health comprehension (two questions) and physical pain (two questions). Mental small scale includes questions on limited role due to mental problems, energy and enthusiasm, status of the mind and social performance (one question). Its continuity was reported 95 percent by Saadat jou and et.al (2013). Finally besides using descriptive statistic indicators, Variance test was applied in a integrated plan of ANOVA ($2 \times 3 \times 2$) to analyze the data.

RESULTS**Evaluation of descriptive status of variables in this study for the groups are:**

In intervention group, 64% of participants (16) were women and 36% (9) were men. Also in evidence group 40 % of participants (10) were men and 60% (15) were women. In intervention group 20% (3) were under 20 years old, 56% (14) between 21-30 years old and 28% (7) between 31-40 years old and 4% (1) between 41-50 years old. In evidence group also numbers of participants were 4% (1) under 20 years old, 24% (6) between 21-30 years old, 60 % (15) between 31-40 years old, 12% (3) between 41-50 years old. Considering marital status in intervention group, 44 % (11) were single, 48 % (12) married, and 8 % (2) divorced and in evidence group also 32% (8) were single, 60 % (15) married and 8 % (2) divorced. Regarding participants education, it is reported that in intervention group 36 % (9) were not graduated from high school , 52% (13) had Junior & senior college diploma and 12% (3) were bachelor, also in evidence group 32% or 8 participants were not graduated from high school , 48 % (12) had junior & senior college diploma and 20% were bachelor.

Using Mauchly's test showed that the Sphericity assumption for effects on the

psychological traits, (Mauchly's $W= 540$, $\chi^2(2) =28.94$, $p<0.0001$), time, (Mauchly's $W=80$, $\chi^2(2) =28.94$, $p<0.0001$) and time interaction \times psychological traits (Mauchly's $W=133$, $\chi^2(9) =93.49$, $p<0.0001$) have not been observed. So the relevant findings were represented by Greenhouse-Geisser statistics after considering the breaching through this assumption.

In addition, other necessary assumptions to do variance analysis consists of: to be independent(random) of choosing participants when they are dividing to independent groups, normal distribution of data that was approved by Shapiro Wilki Test, and homogeneity of data was confirmed by Levin Test in two groups, so at first a variance analysis was used with repeated measurement. Does spiritual intelligence training have a significant effect on life quality in patients suffering from multiple sclerosis?

First, multivariable measurement indicated overall significant effects for psychological factors (life quality, psychological well-being) $F(2, 47) =6.77$, $p<.01$, $\eta^2p =.22$. Also a significant effect observed for interaction between psychological factor \times group $F(2, 47) = 4.37$, $p<.05$, $\eta^2p =.157$ and a significant effect was observed for time factor, too. $F(4,$

48) = 31.38, $p < .0001$, $\eta^2_p = .74$. Finally, a significant effect was observed for threeway interaction of group \times time \times psychological factors. $F(4, 48) = 24.15$, $p < .0001$, $\eta^2_p = .69$. In addition, evaluation of the effects in the subjects revealed that the three-way interaction of group \times time \times psychological is meaningful. $F(4, 192) = 58.497$, $p < .0001$, $\eta^2_p = .55$

In order to have more accurate study, the simple effects were measured by Banfruny Test and were presented for each of the psychological factors separately. (Table 2) Further analysis about variables in the groups indicated that in intervention group there was a significant difference based on life quality variable between pre-test to post-test and follow-up. meanwhile, in relation to psychological well-being variable there was a

significant difference between pre-test and post-test but compared to follow-up there was not a significant difference in intervention group. Also regarding the average scores of life quality in pre-test , post-test and follow-up, there were not a significant difference for amount of life quality in three steps of the test in evidence group. No significant difference was observed in evidence group about the amount of psychological well-being in pre-test than post-test and follow-up. Therefore a significant improvement was observed in intervention group over time and based on life quality and psychological well-being but scores analysis in evidence group showed that there were not significant differences in different measurement steps and the scores were relatively stable over time (Table 3).

Table 1: Descriptive statistic indicators of samples (n=50)

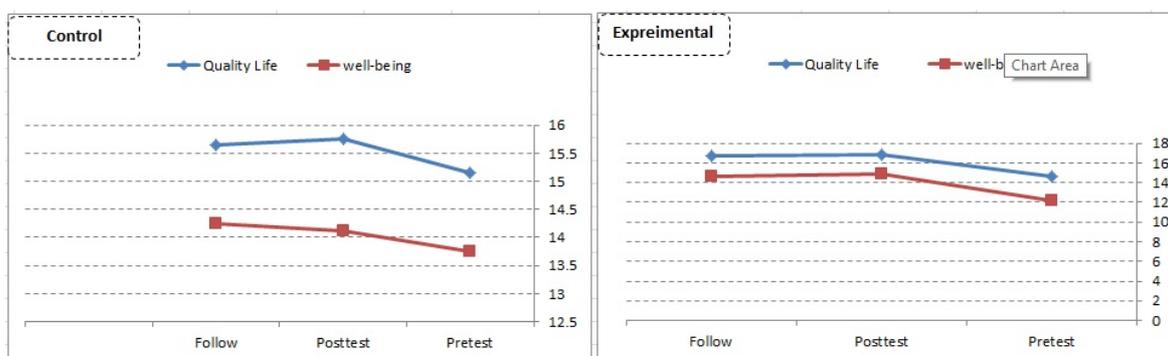
Education			Marital status			Age				Gender		Levels
Senior college diploma	Junior college diploma	Not graduated from high school	Divorced	married	single	41-50	31-40	21-30	Under 20 years old	Female	Male	Group
3	13	9	2	12	11	1	7	14	3	16	19	Intervention
5	12	8	2	15	8	3	15	6	1	15	10	Evidence

Table 2) tests of multivariable effects – repeated measurement plan on life quality and psychological well-being in three intervention groups for post-test, pre-test, follow-up

Power	η^2_p	Significance level	Significant Level	Degree of freedom 2	Degree of freedom 1	F	Effect
0/99	0/34	0/0001	47	2	12/43		Time
0/96	0/28	0/0001	47	2	9/20		Time \times group
0/90	0/22	0/003	47	2	6/77		Psychological factor
0/72	0/15	0/018	47	2	4/37		Group \times psychological factor
1	0/73	0/0001	48	4	31/38		Psychological factor \times time
1	0/68	0/0001	48	4	24/15		group \times psychological factor \times time

Table 3) statistic indexes of life quality and psychological well-being (n=50)

Variance	Average	step	group	Index
2/77	14/68	Pre-test	intervention	Life quality
2/53	16/88	Post-test		
2/55	16/76	Follow-up		
3/11	15/16	Pre-test	evidence	
3/20	15/76	Post-test		
3/35	15/64	Follow-up		
2/57	12/24	Pre-test	intervention	Psychological well-being
2/46	14/84	Post-test		
3/33	14/68	Follow-up		
3/03	13/76	Pre-test	Evidence	
2/94	14/12	Post-test		
2/98	14/244	Follow-up		



Graph 1, statistic indexes of life quality and psychological well-being in three steps of measurement for separated groups

CONCLUSION

The study accomplished to evaluate the effect of spiritual intelligence training on life quality and psychological well-being in patients suffering from multiple sclerosis in Bandar Abbas. As follows 50 available participants were selected from the population and divided in two groups of 25 participants called intervention and evidence groups. The groups were measured by variance test in three steps. Findings expressed that the effect of spiritual intelligence training have been meaningful

on life quality and psychological well-being in patients with multiple sclerosis. In post-test after intervention there was a significant difference about life quality improvement between the two groups and also the difference continued in tracking of intervention group. This finding similar to previous findings acquired by Pirate Muztagh and Nikmanesh (2013) which had been emphasized the role of spirituality on life quality in patients suffering from HIV, Hosseinian, Qasemzadeh and Niknam (2012), Hamid and Zemestani (2014) tried to

predict life quality based on variables of emotional and spiritual intelligence. Also the effect of spiritual intelligence on mental health is reported by Goudarzi and et.al(2011). To express the obtained results, it should be noted that reinforcing religious and spiritual attitude in patients and also persuading them to behave manners related to those attitudes can increase life quality.

Also they should increase their self-confidence and self-respect because the mentioned instances lead to life quality improvement in patients. Therefore spiritual-religious instructions are recommended by cultural, educational and therapeutic respondents to increase social-mental health and promote life quality in patients.

Another finding of the study illustrated that the effect of spiritual intelligence on psychological well-being is meaningful and significant in patients with multiple sclerosis and it improved their psychological well-being status though there was no study to reveal the effect of spiritual intelligence on spiritual well-being or psychological well-being. But researches including Okouzy's (2010), MacKib's (2010), Natan's (2010) which have reported the relationship between psychological well-being and spiritual intelligence constructs including spirituality, spiritual well-being and dependence to God,

that was similar to Marashi, Naami, Bashlide's report about the effect of spiritual well-being on psychological well-being, too. It could be mentioned to explain this conclusion that spiritual intelligence is an ability to use spiritual resources in order to solve problems and have a better life. So it would be expected that generally spiritual intelligence training promotes psychological well-being. In addition psychological well-being improvement have been led to improve its dimensions including dominance on environment, purpose and orientation in life, self-acceptance, personal growth and flourishing, others' positive relations and independence. Therefore it would cause to increase power of sublimity which means rejecting material and physical aspects of life, and it makes people capable to understand the deep concepts of the world and cover the gap in meaning of it. Also people who have high spiritual intelligence may preserve a deep meaning of death and not to summarize human beings life in physical and material life. It is considered that such people don't regard death as a total annihilation, so never account it as a threat.

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