

# Investigation of the relationship between the body activity with life satisfaction amongst the youth who Suffer from Multiple Sclerosis in Tehran

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**Abstract:** Recently, great and unprecedented changes in science and technology are emerging throughout the world. In the science world, physical activity and exercise are very important for curing psychological illness. This article investigates a vast domain of different youth who suffer from MS (Multiple Sclerosis) in Tehran by using scientific methods. The main reason for this investigation is to discover scientific and relative laws about psychology and body activity and also how to improve the lives of M.S patients effectively.

**Keywords:** Physical Activity, Living Satisfaction, M. S Affected People, Living Quality

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## 1. Introduction

Recently, many progresses and achievements in different aspects of science and technology are rising which will have a great impact on the lives of human being all over the world. Courageously, it can be said that all of these progresses are done in all fields especially mental patient cure. In fact, it can be said that sport and physical education are one of the scientific and cultural achievement of human being which has taken into consideration cultural, social and health abilities. Regular physical activity as a kind of important behavior can improve the health of people and also prevent or delay different kinds of chronic diseases and precocious deaths. There are clear evidences that doing regular physical activities leads to psychological health improvements, depression and anxiety decrease and living satisfaction and living quality growth. The regular physical activity and suitable physical readiness or preparation can increase the people health and also can help to prevent the diseases and most importantly, they can be a part of disease treatment. Based on researches done by Ababi 2001, the influence of sport and regular physical activity has a deep influence on health. The regular physical activity and desirable body preparation, not only can prevent diseases, but also increases the living quality and health.

The regular physical activities have also decreased the

risk of mental disease. M.S (Multiple Sclerosis) is one of the most epidemic diseases of central nervous system (brain and spinal cord). This disease causes the destructive influence on the nervous fibers sheath and, consequently, nevus waves can't move through the brain properly and it makes different signs of M.S to be appeared. As it influences on all the aspect of the patients' lives economically, socially and emotionally, the treatment methods and controlling periods of disease of the affected people is so vital. The obtained results of the investigations show methods such as keeping energy, physical activity, behavior interactions and psychological intervention. M.S. signs have a direct relationship with physical activity which considering or ignoring them will have a deep influence on living quality of the affected people.

Now days, sport is one of the most important effective factors for health and joy in societies. However, considering sport as a supportive tool to help and protect patients from diseases have been neglected (Naderian, 2009). In the modern era, fatal and threatening diseases have appeared in their developed forms. For the sake of eruption of these diseases, knowledge and control of them are needed.

Thus, many psychologists consider sport as an effective tool to fight with anxiety, impatience and nervous stresses. For this reasons, it is necessary to study the different dimensions of people contribution and participation in physical activity. Among different classifications of

societies, the society of M.S. affected people can be considered as one of the vulnerable groups who pay little attention to physical activity. Since the physical activity is very influential on decreasing common mental and physical health problems and also the most M.S. affected people are from the young and efficient members of society which are neglectful to this important subject, the present research can play an important role to increase the knowledge of patients. In other word, it can increase living satisfaction and living quality of associated people. It can help to improve educational and administrative programs in order to persuade them to perform physical activity and intervening on time in its improvement (Afzalpoor, 2010).

Afzalpoor investigated the influence of sport management and diet effects on living quality of MS patients. The result of research showed that sport had a profound influence on living quality and health of the people who had little disability. This means that sport has more influence on improving the living quality of M.S patients who have little performance disability.

Cheung et al (2013) concluded that doing exercises has more influence on improvement of aerial capacity and muscular power and strength of MS patients who has low-to-intermediate disabilities. They have demonstrated that sport can improve the movement and weakness and living quality and consequently health of MS patients.

Asadi zaker (2010) studied the degree of weakness and the living quality of Ms Patients. By doing clinical tests in the form of single group on 15 MS patients who suffered from low to intermediate disability, they showed that the speed of patient walking increased meaningfully and the degree of weakness also decreased significantly. This means that physical activity amongst these patients grew the living quality of them considerably.

Pursoltani (2001) studied the influence of an eight week water treatment activity on improving the living quality of MS patients. The results of this research showed that water treatment activity similar to some selected aerial exercises improved the living quality of MS patients.

## 2. The Research Methodology

The under-studied society includes the young people from 18 to 30 years old who suffer from MS by EdSS between 0 and 3 and are registered in Tehran MS society and have a certain identification number. Totally 300 MS patients were selected but 170 of them have been selected accidentally according to the Demorgan method. The method of collecting data in this research was based on three standard questionnaires:

1. International physical Activity questionnaire (IPAG) which its final coefficient was obtained 0.78.
2. The questionnaire of studying health (SF-36) which its credit coefficient was calculated 0.78.
3. The questionnaire of living Satisfaction (SWLS) which its final score was calculated 0.79.

Finally, the justification of these questionnaires was

confirmed by ten professors of physical educations. In order to describe the statistics, the frequency, percentage and mean tables are shown and for showing the relationship between them the Pierson correlation coefficient is stated. In order to analyze the data and modeling in the field of SEM structural equations, SPSS and LIZREL were used.

**Table 1.** Studying of the relationship between physical activity and psychological health

Psychological health		
0.359	Correlation coefficient	
0.000	P-value	Psychological activity
158	total	

In the above table, the P-value is obtained less than 0.05 which is not acceptable. It means that by increasing the physical activity, the psychological health will increase too.

**Table 2.** Studying of the relation between physical activity and psychological health

Psychological health		
0.373	Correlation coefficient	
0.000	P-value	Psychological activity
158	total	

In the above table, the P-value is obtained less than 0.05 which is not acceptable. It means that by increasing the physical activity, the psychological health will increase too

**Table 3.** Studying of the relation between psychological health and living satisfaction

Living satisfaction		
0.767	Correlation coefficient	
0.000	P-value	Psychological health
158	total	

In the above table, the P-value is obtained less than 0.05 which is not acceptable. it means that by increasing the physical activity, the psychological health will increase too.

**Table 4.** Studying of the relation between physical health and living satisfaction

Living satisfaction		
0.863	Correlation coefficient	
0.000	P-value	Psychological activity
150	total	

In the above table, the P-value is obtained less than 0.05 which is not acceptable. it means that by increasing the physical activity, the psychological health will increase too.

**Table 5.** Studying of the relation between bodily activity and living satisfaction

Living satisfaction	
.417	Correlation coefficient
0.000	P-value
162	total

In the above table, the P-value is obtained less than 0.05 which is not acceptable. It means that by increasing the physical activity, the psychological health will increase too. In the below table, it seems that model of chi-chi is relatively desirable.

**Table 6.** The indexes of chi-chi model

Evolution of chi-chi	Statistic model	Accepting value	Chi- chi inex
—	85,09	—	$\chi^2$ (chi squar)
Desirable	2,93	$\frac{\chi^2}{df} \leq 3$	$\chi^2/df$
Desirable	0,04	RMSEA $\leq 0.08$	RMSEA
Desirable	0,092	NFI $\geq 0.9$	NFI
Desirable	0,090	NNFI $\geq 0.9$	NNFI
Desirable	0.093	CFI $\geq 0.9$	CFI
Desirable	0.090	GFI $\geq 0.9$	GFI
Relatively Desirable	0.087	AGFI $\geq 0.9$	AGFI

**Table 7.** The coefficients of basic variables of chi-chi structural model

Determining coefficient	P-value	t. student statistic	Coefficient of the structural	Independent variable	Dependent variable
0.58	0.0072	4,48	0,31	Bodily activity	Physical health
	0.041	1,81	0,11	Psychological health	
0.70	0.011	0,90	0,02	Bodily activity	Psychological health
	0.099	8,47	1,06	Physical health	
0.86	0.00020	3,45	0,13	Bodily activity	Living satisfaction
	0.0049	3,26	0,43	Physical health	
	0.0037	3,19	0,43	Psychological health	

In the above table, we observe that in some cases in which the P-value is less than 0.05 is not acceptable. It means that the independent variable has a meaningful influence on the dependent variable. Consequently we notice that the only acceptable P-value in order to influence the physical and psychological health should be more than 0.05, therefore physical activity doesn't have meaningful influence on psychological health. The other independent variables have meaningful influence on their corresponding dependent variable.

### 3. Discussion and Conclusion

In the field of the relation of physical activity and psychological and physical health of the patients, the finding is in accordance with the research results of Asadi (2010). It means that increasing physical activity has decreased mental and psychological weakness of M S patients. It can be expected that those who had done better physical activity, had a better psychological health. The results of Song et al (2013) research reported that there is relation between physical activity and living satisfaction of M S patients and their results are in a good agreement with this current research.

Other researches which their results are in a good agreement with this current research, we can point to Cheung et al (2013). The results of their research showed that physical activity and moving ability can improve weakness and living quality.

Elavsky et al (2005) in investigated the living quality

related to the health that can predict the different progress of changes of disability and depression in the MS patients. In their research, they studied whether the living satisfaction related to the health can be predicted by the changes in disability and depression and weakness of MS patients who during period of 3 years or not. The results of their research showed that the physical health was an independent prediction of the disability function. The psychological health was also a prediction of disability function in MS patients. The social function was a depression prediction in MS patients and this finding is in a good agreement with the current research because doing more physical activity and having more moving ability will increase the social function and make the psychological and living quality of patients better.

The results of Jenardhan & Bekshi researches (2002) showed that depression and weakness have a deep influence on living quality of MS patients. Frisch (1998), in another research, reported that physical activity has a relationship to living quality and physical activity of MS patients. The findings of this research are in a good agreement with the current research too. Naturally paying attention to the physical activity of these patients and persuading them to do more activities improve their everyday activities. The other cases which those researches mentioned them is self-care taking which is reported from other researches that those patients who have self-care taking could be able to evaluate better their living quality and their psychological health. From this viewpoint and by these interpretations and according to these result, different studies which are in

agreement with the result of the current study, can be expected that the patient who have more physical activity, have less mental and physical weakness and this important result have an influence on living quality and physical and psychological health. Of course, the results of these researches have shown that this disease cause bad and abuse effects on the affected people and make them have negative understanding of themselves, and it has negative effects on the personal behavior and psychological function. Hagigat & Jamali (2012) investigated the pain on people suffering from MS from different aspects. The results showed that pain, can have a deep influence on different aspects of living quality of the Multiple Sclerosis patients. As it was noticed, the results have shown that the pain played an important role on different aspects of Multiple Sclerosis affected people's living quality. It is worth to mention that it must be pointed out to service the patients with hygienic care takers and they must be trained and be educated in order to pay more attention and deal with physical activity which has an influence on improving the MS patients and those care takers try to encourage these patient to do physical activity carefully and usually.

Although the results of Craig et al (2013) research showed that although, the M.S. patients compared to healthy people have less physical activity; psychological intervention will increase the physical activity in them. Naturally paying attention to these problems makes better the situation of these patients.

Although some researchers such as Lee et al (2003) believe that although, there is not a simple correlation between these three variables (physical activity, psychological and physical health) and their mechanism; it is a fact that the physical activity is related to physical and psychological health. Lahti et al (2010) reported that there is a meaningful relation between physical activity and living satisfaction and this finding is in agreement with the results of this research. Finally, it's logical and rational that physical activity has caused positive feeling in the mental patients and it has improved their health.

#### 4. Summary

Briefly, the results of this current research shows that the physical activity through the physical and psychological health is related to the living satisfaction of the M.S. young people in Tehran. Although this research is done in a special period of time, but this study created an important subjective frame work for doing intervening and experiential plans about MS patients that can be suitable and it can be considered by decision makers and program makers and must be considered by the researchers, too. It seems that by identification of the barriers and restriction of physical activity among MS patients, especially those who this disease is diagnosed recently and who are at the beginning of their disease, they must be persuaded to do physical activity prepared educational classes in the important field of physical activity should also be prepared and they should be

informed about the influence of physical activity in improving their diseases. They should be persuaded to do physical activity, because this grows their health and improves their living quality and living satisfaction more through their lives. Moreover, the self-taking care educations and training to these patients can grow their living quality and living satisfaction.

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#### References

- [1] R. Ababi, "Studying the identification bass or data and psychological health at the beginning and intermediate young period." M.SC. Thesis, the university welfare and rehabilitation sciences, 2001.
- [2] A. Afzalpour, "Comparing the living quality, bodily training and physical preparation of scientific board of active and in active males of Birjand university, 2010
- [3] A. Asadzaker "Studying the influence of sport on the rapid walking, the revel of weariness and living quality of patients," Research quarterly paper of the sport sciences. No.12, 2010.
- [4] B. Soltani, "The influence of one exercise program about 8 weeks into the water (pool) on improving the living quality of M.S. patients scientific magazine of Kurdistan medical sciences university," 2009.
- [5] E. Shokouri, "The relation of regular physical activities (walking) with woman living quality," Payesh, quarterly paper, pp.407- 414, 2009.
- [6] R. Hagigat, and E. Jamali, "Studying influence of pain of the Multiple Sclerosis affected person from different aspects, Iran Adulthood Magazine No. 18. Fifth year, 2011.
- [7] M. Naderian, "The barriers and obstacles of sport participation of employed males and females in the Iran," University of medical and health services. The Iran University of Medical Science Magazine No. 52. Period 13, 2009.
- [8] L. Cheung S. N., Sweet, M. J. Perrier, C. Podzyhun, "Disability and Rehabilitation," Informal Healthcare offers a unique range of publishing formats.13.p.p. 1-8, 2013.
- [9] H. Pursoltani, "Comparison of health standards of handicappedpeople" PhD Thesis. The Iran University of Medical Science Magazine No. 42. Period 12, 2001.
- [10] S., Elavsky, E., McAuley, R. W., Motl, J. F., Konopack, D. X., Marquez, L Hu, "Physical activity enhances long-term quality of life in older adults: Efficacy,esteem and affective influences," Ann Behav Med, 30(2), 138.145. [PubMed:16173910], 2005
- [11] V., Janardhan , R., Bakshi, "Quality of life in patients with multiple sclerosis: The impact of fatigue and depression," Journal of the Neurological Sciences. Volume 205, Issue 1, 15 December 2002, pp: 51–58, 2002
- [12] M, B, Frisch, "Quality of life therapy and assessment in health care," Clinical Psychology: Science and Practice, 5(1), Journal of Personality Assessment, pp: 340-354, 1998
- [13] W. Robert. & M. Erin Snook, "Physical Activity, Self-Efficacy, and Quality of Life in Multiple Sclerosis," The Society of Behavioral Medicine 2008 35:111–115, 2008

- [14] CL, Craig, A., Marshall, M., Sjostrom, “International Physical Activity Questionnaire: 12 country reliability and validity” *Medics Sports Exercise*, August, 35(8), 1381-95, 2003
- [15] C., Lee, A., Russell, “Effects of physical activity on emotional well-being among older Australian women: cross-sectional and longitudinal analyses,” *Journal of Psychosomatic research*, 54, pp: 155-160, 2003.
- [16] J., Lahti, k., Laaksonen, s., Mikko., b., Lahelma, “The impact of physical activity on physical health functioning – A prospective study among middle – aged employees,” *Preventive Medicine*, 50, pp: 246-250, 2010.