

The Effectiveness of Life Skills Training on Life Satisfaction in Patients with Spinal Cord Injury

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Spinal cord injury (SCI) is one of the most debilitating diseases that affects all aspects of person's life. Researches have indicated that life satisfaction in these patients is lower than that of others. The aim of this study was to investigate the effect of life skills training on life satisfaction in patient with spinal cord injury. This study, having a quasi-experimental design, was performed with pre-test, post-test, and control group. The statistical population of this study consisted of patients with spinal cord injury (only men) that is covered by the home health care team of the Kahrizak Charity Foundation of Tehran. To do research, 30 patients of the center were selected by availability sampling and were randomly divided into experimental and control groups. In the experimental group, 10 sections of life skills training were performed, while no intervention was used for the control group. The research tool used in this study was a Self-Life Satisfaction Questionnaire and a univariate analysis of covariance was used to test results. Findings from the analysis of covariance showed that there was a significant difference between experimental and control groups ($p < 0,05$). This indicated that life skills training improved the life satisfaction in patients with spinal cord injury.

Keywords: spinal cord injury, life satisfaction, life skills.

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Introduction

Spinal cord injury (SCI) is a major life event leading to serious physical disability and secondary medical problems, and has important consequences for the life satisfaction of the person's involved [24]. SCI is a defect of the disability type. Extreme damage to the spinal cord leads to loss of sensation and paralysis of voluntary muscles, resulting in reduced mobility and independence in daily-life activities, and impairment of social and vocational skills [22]. Spinal cord injuries can be categorized as traumatic (e.g. motor vehicle accident) or non-traumatic (e.g. virus). Individuals who have suffered a spinal cord injury will experience impairment in the communication between their brain and the rest of their body. This impairment affects several body functions, including mobility, sensation, sexual function and bladder and bowel functions [22]. SCI has important consequences for life satisfaction of the person involved. In fact, individuals with chronic diseases usually experience a decline in their life satisfaction [2]. For example, daily activities are adversely affected as a result of physical impairment. Moreover, physical impairments lower patients' psychological condition, making them overly sensitive and prone to feeling offended easily.

They also experience difficulties in expressing complaints and frustrations, which, in turn, leads to feeling upset and not being understood [3; 22]. In accordance with the positive psychology movement, which seeks to understand and augment positive and adaptive aspects of human experience rather than focusing on symptoms, deficits, and limitations, researchers in healthcare and rehabilitation have begun to focus on subjective well-being, including constructs such as life satisfaction as the preferred outcome in persons with disabilities [16].

Life satisfaction is a complex term and is sometimes used interchangeably with the emotion of happiness, but they are indeed two separate concepts. It is a subjective part of the quality of life and concerns a person's feelings about his/her functioning and circumstances [12]. In other words, life satisfaction is an overall assessment of attitudes and feeling about one's life at a particular point in time, ranging from the negative to the positive [9]. It refers to a cognitively oriented, subjective judgment of one's current life satisfaction in relation to one's own expectation. This concept is based on the assumption that the same objective reality may be experienced in completely different ways by various individuals, based on their previous life experiences and on their current expectations, goals, and values [4].

Since life satisfaction is an important goal of rehabilitation medicine, it has been studied in many health conditions, especially individuals experiencing chronic disease or disabilities such as patients with spinal cord injury [6; 15]. Researches have shown that life

satisfaction in the immediate phase after the diagnosis of SCI decreases [14]. However, in the long run, life satisfaction scores of survivors are just slightly lower than life satisfaction of the general population [7]. In these patients, high functional independence, low pain, high everyday social support, and high self-efficacy were significant determinants of a positive course of life satisfaction after discharge [23]. One of the most important factors that help people live well and successfully is to know and feel good about themselves. Life skills help individuals understand more about themselves, their characteristics, needs, desires, goals, weaknesses, strengths, passions, values, and identify [20]. According to WHO, life skills are abilities for adaptive and positive behavior, which enable individuals to deal effectively with the demands and challenges of everyday life [25]. Life skills have been classified into three broad categories:

1. Thinking skills: thinking skills are the skills that enhance the logical faculty of the brain using an analytical ability, thinking creatively and critically, developing problem-solving skills, and improving decision-making abilities.

2. Social skills: social skills include interpersonal skills, communication skills, leadership skills, management skills, advocacy skills, co-operation and team building skills, etc.

3. Emotional skills: emotional skills involve knowing and being comfortable with oneself. Thus, self-management includes managing/coping with feelings, emotions, stress, and resisting peer and family pressure [19].

World bodies such as UNICEF, UNESCO and WHO list 10 core life skills as: self-awareness, critical thinking, creative thinking, decision making, problem solving, effective communication, interpersonal relationship, empathy, coping with stress, coping with emotion.

For health promotion, life skills education is based on the teaching of generic life skills and includes the practice of skills in relation to major health and social problems [15; 17]. Researches have shown that life skills training is one of the most effective methods to meet the challenges of life [10]. Elham Khooshab et al. [7] investigated the effect of life skills training program on parental stress and found that this program could reduce parenting stress in mothers with blind children. Fatemeh Salmaniyan et al. [20] showed that life skills training increased happiness and self-esteem in spouses of war veterans with severity of disability of 25–75%.

Janaka Puspakumara [17] showed in his study that life skills training was effective in preventing a wide range of problems such as substance abuse, teenage pregnancies, violence, bullying and to promote self-confidence and self-esteem among adolescents. Zahra Roodbari et al. [19] in their research showed that life skills training had a positive effect and improved social development, and emotional and social adjustment. Tahereh Mahdavi Haji et al. [10] examined the effectiveness of life skills training on happiness, quality of life, and emotional regulation, and showed that life skills training increased them.

The purpose of this study was to investigate the effectiveness of life skills training on life satisfaction in SCI patients. We hypothesized that SCI patients faced several secondary

challenges such as psychological problems (anxiety, depression, and low self-esteem), social isolation, and some difficulties with their family and environment. All of these problems decrease life satisfaction. We expected that life skills would help them to cope with their new situations and solve their problems effectively and it will increase life satisfaction.

Method

Statistical population. This study, having a quasi-experimental design, was performed with pre-test, post-test and control group. The statistical population of this study consisted of patients with spinal cord injury (only men) that is covered by the home healthcare team in the Kahrizak Charity Foundation of Tehran. To do the research, 30 patients of the center were selected by availability sampling and were randomly divided into experimental and control groups. Mean and standard deviation of participants' ages in experimental group were 31,13 and 6,76 and in control group were 34,40 and 8,32, respectively. In our experimental group, 10 sections of life skills training were performed, and, for control group, no intervention was used.

Tools. In this study, life satisfaction was measured with the Self Life Satisfaction Questionnaire. It was developed by Carter and translated and normalized into Persian by Karami. This questionnaire consisted of 25 questions with three answers to each question include: agree, disagree and neutral. There was a special number for each person and numbers were between 0 and 50. Higher scores in this questionnaire indicated greater satisfaction with life. The reliability of this questionnaire, according to Cronbach's alpha, was 78% [8].

Data analysis. In order to analyze data, we used the statistical method of covariance.

Results

In Table 1, the descriptive component of life satisfaction in the experimental and control groups are presented separately in the form of pre-test and post-test.

Table 1

Mean and Standard Deviation in experimental and control groups in pre- and post test

Scale	Group	Pre-test		Post-test	
		Mean	SD	Mean	SD
Life satisfaction	Experimental	21.47	5.44	26.27	8.27
	Control	24.07	7.65	21.02	8.23

According to the Self-Life Satisfaction Questionnaire, higher scores showed higher life satisfaction and the result of Table 1 indicate that the mean and standard deviation of the experimental group significantly increased (confidence of p-level > 99%) in the post-test, but, in control group, the mean decreased in the post-test but there is no significant difference between the pre-test and post-test standard deviation. Since the assumptions of the Covariance analysis were established, we used them to interpret results. These results are shown in Table 2.

The results of Table 2 indicate that, the difference between experimental and control groups was significant ($F=23.229$; $Sig=. /000$; $P<0.001$). It means that the life skills training improves the life satisfaction in patients with SCI. The severity of the effect evaluated by Partial Eta Squared was equal to 0.462. It means that life skills training had a moderate effect on life satisfaction in these patients and the research hypothesis was approved.

Table 2

Results of Covariance analysis

Source	Dependent Variable: Post-test			Tests of Between – Subjects Effects				
	SS	df	MS	F	Sig	Parital Eta Squared	Noncent Parameter	Observed Power
Pre-test	1396.028	1	1396.028	73.431	0.000	0.731	73.431	1.000
Group	441.608	1	441.608	23.229	0.000	0.462	23.229	0.999
Error	513.306	27	19.011					

Notes. R Squared = 0.756 (Adjusted R Squared = 0.738). Computed Using alpha = 0.05.

Conclusion

The aim of this study was to assess the effectiveness of life skills training on life satisfaction in patients with spinal cord injury. Therefore, a sample of 30 patients were selected and assigned to experimental and control groups. Covariance analysis indicated that there were significant differences between the experimental and control groups. This result means that the life skills training (coping with negative mood, effective relationship, assertiveness, anger management and stress management) was an effective program for increasing life satisfaction.

Spinal cord injury is one of the most chronic and disabling diseases that has many negative physical and psychological effects on patients. Researches have shown that SCIs experience a higher level of distress and lower level of life satisfaction compared to the general population [23]. This is because SCI usually demands changes in almost every aspect of an individual's life. Different aspects of personal and social status in a person can

be related with life satisfaction. For example, self-efficacy is a personal factor, which has shown a strong relationship with life satisfaction [5; 13] or different type of social support show different relationships with life satisfaction [24]. Researches have indicated the positive effects of life skills training on different aspects of a disabled patient's life and the results of this study are consistent the findings of others [1; 10; 11; 17]. Life skills training make individuals get to know more about their strengths and weaknesses and have a better self-recognition. Indeed, if people learn how to reform their cognitive errors, manage their negative emotions, have an effective relationship with others, manage environmental stresses and improve their lifestyle, they would experience high levels of self-esteem and social support that cause to increase their life satisfaction. Since these sessions were in a group form, they could have a positive effect on reducing stress. Infact, participants found that others also had the same problems; thus, the acceptance of reality and dealing with it could be improved. Patients with SCI experience many negative emotions like stress, anger, and depression, and these are associated with life satisfaction negatively. Skills such as problem solving, anger management, and coping with stress and negative emotion prepared them to deal with their problems and conditions. In these people, social support is strongly associated with life satisfaction. After the sessions, participants learned how to communicate effectively with others and get more social support that held to increase life satisfaction.

The following suggestions are made in view of the findings of the study: first, longitudinal analysis of the effectiveness of life skills training on life satisfaction can be useful. Second, the differences between males and females with SCI can be considered.

It is important to interpret the above suggestions as this study's limitations.

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Влияние тренинга жизненных компетенций на удовлетворенность жизнью у пациентов с травмой позвоночника

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Травма позвоночника – одно из самых серьезных повреждений, затрагивающее все аспекты жизни пациента. Исследователи отмечают, что удовлетворенность жизнью у подобных пациентов ниже, чем у других. Цель исследования состояла в изучении эффекта тренинга жизненных компетенций на удовлетворенность жизнью у пациентов с травмами позвоночника. Данное исследование использует квази-экспериментальный дизайн. Оно было выполнено с применением схемы: пре-тест, пост-тест и контрольная группа. Статистическую популяцию исследования составили пациенты с травмами позвоночника (только мужчины), пользующиеся услугами команды домашнего патронажа Тегеранского Благотворительного Фонда Кахзирак. Для проведения исследования, были отобраны 30 пациентов центра. Затем пациенты были разделены на контрольную и экспериментальную группы в случайном порядке. В экспериментальной группе проводился тренинг жизненных компетенций по 10 блокам, тогда как в контрольной группе никаких вмешательств не проводилось. Измерительным инструментарием был выбран Опросник удовлетворенностью жизнью, для проверки результатов использовался одномерный ковариативный анализ. Данные, полученные в ходе ковариативного анализа показали, что существуют значимые различия между экспериментальной и контрольной группами ($p < 0.05$). Результаты указывают на то, что обучение жизненным навыкам улучшало удовлетворенность жизнью пациентов с травмой позвоночника.

Ключевые слова: травма позвоночника, удовлетворенность жизнью, жизненные компетенции.

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