



ASSESSING LIFE SATISFACTION AND ITS RELATION WITH SOCIAL SUPPORT IN PATIENTS WITH BURNING REFERRING TO VELAYAT SUB-SPECIALITY BURN AND PLASTIC SURGERY CENTER IN RASHT CITY DURING 2017

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ABSTRACT

Introduction: Burning is considered as the most destructive damage in human society. Burning affect the quality of life and life satisfaction. Studying life satisfaction is very important because of its close relationship with physical and mental health. Social support increases the chance of one's growth and prosperity by creating hope and satisfaction, and reduces anxiety. Considering the high prevalence of burning in Iran and the presence of challenges in the treatment and rehabilitation of these patients; the purpose of this study is assessing life satisfaction and its relation with social support in patients with burning referring to Velayat Sub-Speciality burn and Plastic surgery center in Rasht.

Methods: this is a descriptive-analytical study and 379 patients with burning were included in the study by available sampling method. Norbeck Social Support Questionnaire (NSSQ) and Diener life satisfaction questionnaire were used after validity and reliability. Data was analyzed by descriptive and analytical statistics and by SPSS 21 software. The significant level was $p < 0.05$.

Findings: The results of this study showed that the majority of subjects were males (64.1%) and the average age of these patients was 35.81 years with a standard deviation of 26.11 who had the lowest age of 18 years and the highest age of 73 years. The most common causes of burning was thermal burns (89.2%), mean burn severity (19.7%) and the most burning limbs were hands (79.7%). The results also showed that life satisfaction had a significant reverse correlation with emotional support ($R = -0.232$) and material support ($R = -0.334$) ($P < 0.0001$); while there was a direct correlation with other social support areas (number of people in the network, duration of communication, frequency of calls, number of deleted communications and the amount of lost support).

Conclusion: while social support is thought to have a serious impact on life satisfaction, in particular in terms of material and emotional aspects, the results of this study showed that other aspects of social support (number of people in the network, duration of communication, frequency of contact, number of deleted relationships and amount of lost support) were more effective in life satisfaction of these patients. Therefore, apart from social support, other psychological needs and factors affecting the satisfaction of these patients should be considered. Also, programs and classes will be organized with advisory and educational content for patients and their families and plan for providing emotional support and maintaining the social aspect of patient quality of life by their families.

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Introduction

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Accidents are one of the major non-contagious diseases of the present century, among which burnings are the most common one [1]. Burning is one of the most important health and hygiene problems around the world, which lead to long-term hospitalization and increased costs for patients, families and the community [2].

Approximately 45,000 people are treated for burns annually, and the number of patients hospitalized for burn injuries is also about 45,000 per year [3]. In our country, there are about 724,000 burns annually, with 335,000 people recovering without medical intervention, and 348,000 people recover by visiting health centers and outpatient services, 38,200 hospitalized and 2920 die [4]. A survey of patients who referred to the Burn Rescue and Restorative Surgery Center in Rasht, in 2013 showed that 1147 patients were admitted to the center and 10288 were in the outpatient wards [1].

Burning damage is painful, costly, deformed and requires a special open-loop program and may be associated with long-term disability [2]. Changing appearance and disturbances in the function and appearance of the organs can have significant physical, psychological, economic and social consequences. Restrictions caused by the illness cause problems for their job, family, and social tasks of the patients and cause social isolation and depression [3]. Also, burning can have a major impact on the quality of life of patients and may impair their physical, mental, social and spiritual well-being [5].

One of the burning effects is its effect on the patients' satisfaction. Life satisfaction is one of the components of mental well-being that addresses the general attitude and judgment of a person relative to a whole life or some of its aspects, such as family life and educational experience. Research has shown that life satisfaction is one of the predictors of general well-being and positive performance and is associated with several factors such as personality traits, emotional intelligence, family relationships and social support [6]. Life satisfaction is one of the important factors in the welfare of the individual, and its review in health care systems is vital because of the close relationship between physical and mental health and life satisfaction. Although various studies have been done and it shows the importance of this issue, there are still ambiguities and questions about the importance of the relationship between social support and satisfaction, such as protecting the patient that may reduce his independence [7].

Social support is caring, kindness, dignity, comfort, and assistance that other people or groups give to a person. This support has various sources: spouse, family, relatives, friends of colleagues, doctors, social organizations, etc. [8]. Generally, social support has three aspects: instrumental aspect, information aspect and emotional aspect. Instrumental aspect is a supporting material resources, such as food and money, supporting information is including providing information or suggestions, enabling a person to cope with difficulties and, ultimately, emotional support includes loving, caring, and understanding the other partner. Emotional support is the support provided by others towards the individual, and in fact it reinforces some sense of self-interest and self-esteem, such as supporting sponsorship, which involves a variety of intangible contributions between individuals [9].

Dealing with patients who suffer from social problems caused that nurses try to provide social support to the patient by helping patients acquire skills and find a job, pay medical expenses, introduce them to welfare centers, relief committees and the like [10]. Nurse, as one of the health care providers, supports the patient and her family to be compatible with burn injury. If it is necessary referral should be done to social service centers or psychiatric counseling. Since the burn injury is a crisis and causes various emotional reactions that may lead to moral conflicts and issues, the nurse should also be mindful of the psychological needs of the patient and their family [2]. Considering that social protection as a powerful and effective means of coping is known for the successful and easy confrontation of people in times of conflict with stressful conditions and facilitates patient tolerance; if its relationship with life satisfaction is proven, it is a valuable solution for patients with burns to adapt to this problem. Considering the high prevalence of burns in Iran and the treatment and rehabilitation of patients with burns in Iran is a challenge [11]; the purpose of conducting this study is evaluating life satisfaction and its relation with social support in patients with burns referring to burn injury and restorative surgery center in Rasht in 2017.

Method: This is a descriptive-analytic cross-sectional study, which started the course of 4 months from the end of March of 2017 and was finished by early July. The statistical population in this study was all patients with burn injuries referring to burn centers and restorative surgery in Rasht in 2017. These patients referred to the burning clinic either on an outpatient ward or were admitted to restorative ward.

The sample size was 379 patients with burning who referred to this center in 2017 and in case of having the entry criteria were selected for sample study. Entry criteria include ages older than 18 years (due to intellectual maturity as well as greater collaboration with the investigator), patients with deep grade 2 or grade 3 and grade 4 burnings 10 to 70% burnings, and at least three weeks have passed since the burning, and wanted to undergo surgical and restorative surgeries, or replacement of wound burns to the hospital or clinic, and those who are not afflicted with mental illness and mental retardation.

The sample size needed to determine social support and its relationship with life satisfaction in burn patients based on the results of the Niroumand- Zandi et al. Study with 95% confidence and considering the margin of error, the relative estimation of 10% standard deviation, was determined 379.

Norbeck Social Support Questionnaire (NSSQ) was used to measure the research variables. This questionnaire is a tool that calculates functional, structural and total social support. It also provides descriptive data on the relationship that a person has recently (for a recent year) has received for various reasons, through which we can easily understand the changes that have occurred in the individual's supportive system.

This tool consists of three main variables, each of which consists of two or three subscales. The first main variable is the total functional support that generates a total subscale of emotional support and material support together for this variable. The second main variable is the total network attributes or structural support that are called from the accumulation of three subscales of the number of people in the network, the duration of communication, and the frequency of calls. The third main change is the total loss, which is the result of the relationship elimination subscales, the number of deleted communications, and the amount of lost support [12].

The reliability and validity of the Norbeck social protection tool have been evaluated in Iran by Jalilian et al. The reliability coefficient of this tool was by internal consistency between 0/84 and 0/973, and the validity of this tool in the simultaneous criteria method was between 0.222 and 0.624 [13]. Also, the reliability and validity of this questionnaire was done by the researcher; the CVI index for each of the questions was between 0.6 and 0.8. In order to determine the reliability of social support instrument, the Test Retest method was applied to 15 of the sampled patients in two stages, with one week interval. The reliability coefficient of the questions based on Wilcoxon test did not show a significant difference in the social support rating of two stages ($P < 0.05$); and Kappa coefficient showed that the agreement rate of questions was above 0.9.

The life satisfaction questionnaire used in this study was based on the Diener et al, life satisfaction questionnaire in 1985, which is a five-item scale. The answer to the questions about the Likert scale is 7 degrees from "I fully agree" to "I totally disagree." The credibility of the Diener Life Satisfaction Questionnaire was confirmed by Cronbach's alpha of 0.83 and by a method of test-retesting of 0.69 and its validity through convergent validity [12].

Data collection was done by interviewing patients and recording the patients' information. In a way that, after obtaining permission from the Vice-Chancellor of Research and Technology of Guilan University of Medical Sciences and presenting it to the head of the Burn Center and Reconstructive Surgery Center of Rasht city, the necessary license was obtained and the samples were referred to the above center.

Findings: The results of this study showed that the majority of subjects were men (64.1%) and most of them were urban residents (61.7%). The average age of these patients was 35.18 years with a standard deviation of 11.26 years, with the lowest age of 18 years and the highest age of 73 years. Table 1 also indicates that the majority of these patients were married (75.7%) before burning and married (74.7%) after burning. The burn incidence rate according to the degree of education of burn victims was as follows: Diploma (34.6%), Middle School (23%), Primary (19.3%), Bachelor and higher (12.9%), Associate degree (8.2%) and illiterate (1.2%). The occupation of patients before burn was self-employed (28.8%) and most of them (83.4%) returned to their job after the burn. In this study, burn agents were divided into four categories: thermal, chemical, electrical, and others. The most frequent cases were thermal burns (89.2%), chemical burns (4.5%), electrical burns (2 / 3%) and others (1/2%). In the study of the location of the burn, it was found that burns in the hand (79.7%) were the most affected organs for burns and the highest burn incidence (94.5%) was the most in this study. The mean time of burn injury in this group was 16.57 months with a standard deviation of 28.45 which lasted at least one month and a maximum of 296 months. The average time of burn incidence in these patients was 19.7% with a standard deviation of 11.07, with the lowest percentage of burns 10 and the highest percentage of burns was 70. In this study, the injuries that occurred during the burn incident were divided into four categories of injuries, inhalation, fracture, shock, and other injuries, with the most damage to other injuries (19%). In the present study, the average length of stay in a hospital was 10.13 days with a standard deviation of 11.07, with a minimum duration of one day and a maximum of 90 days. The duration of burn in the present study was at least a month and a maximum of 296 months. In term of life satisfaction, the majority of people (54.62%) were dissatisfied, while 13.66% were satisfied and 31.93% were relatively satisfied (Table 1).

The mean score of social support in the overall functional area and in the emotional support aspect in burn patients (3.57) and in the material support aspect in these patients (3.22); while in the structural field, the number of network members (4.42), in the aspect of communication time (4.88) and in the aspect of contact frequency (4.63) (Table 2). Also, in the area of total absence, the number of deleted links was 0.16. In the area of social support 1.2% of these patients have lost their communication. Also, most of these patients (1/1%) had moderate lost support levels.

The results of this study showed that life satisfaction with emotional support ($R = -0.223$) and material support ($R = -0.334$) had a significant negative correlation ($P < 0.001$); while there was a significant correlation with other social support areas (number of people in the network, duration of communication, frequency of calls, number of deleted communications and the amount of lost support) (Table 3).

Table (1): responding method to life satisfaction questions among burn patients

		Fully agree	Agree	To somehow agree	No idea	Somehow disagree	disagree	Totally disagree	Mean	SD
In most case close to my ideals in life	Number	51	119	109	14	26	49	11	4.91	1.67
	Percent	13.5%	31.4%	28.8%	3.7%	6.9%	12.9%	2.9%		
My life conditions are great	Number	46	110	111	20	22	61	9	4.79	1.69
	Percent	12.1%	29%	29.3%	5.3%	5.8%	16.1%	2.4%		

I am satisfied with my life	Number	75	178	67	13	10	31	5	5.48	1.46
	Percent	19.8%	47%	17.7%	3.4%	2.6%	8.2%	1.3%		
So far I have acquired important needs of mine in life	Number	53	110	94	25	31	62	4	4.81	1.69
	Percent	14%	29%	24.8%	6.6%	8.2%	16.4%	1.1%		
If I relive I almost change nothing	Number	45	87	40	31	54	94	28	4.06	1.97
	Percent	11.9%	23%	10.6%	8.2%	14.2%	24.8%	7.4%		

Table (2): The average score of total functional support in emotional and material support aspects and structural support in total number of people in the network, the duration of communication and the frequency of communication aspects

Variable		Mean	Standard deviation	Minimum	Maximum
Emotional support		3.57	0.51	0	4
Material support		3.22	0.78	0	4
structural support	Number of people in the network	4.42	2.76	0	16
	Time of communication	4.88	0.38	0	5
	Frequency of communication	4.63	0.5	0	5

Table (3): The relationship between life satisfaction and social support in terms of emotional, material, number of network members, relationship duration score, frequency score, number of deleted relationships and amount of lost support based on Spearman correlation coefficient

life satisfaction score	Social support areas	
Emotional support	Spearman correlation coefficient	-0.232
	P-Value	0.1
	Number	379
Material support score	Spearman correlation coefficient	-0.334
	P-Value	0.1
	Number	379
Number of network people	Spearman correlation coefficient	0.148
	P-Value	0.4
	Number	379
The duration of the relationship score	Spearman correlation coefficient	0.103
	P-Value	0.44
	Number	379
Frequency Score	Spearman correlation coefficient	-0.131
	P-Value	0.11
	Number	379
Number of deleted contacts	Spearman correlation coefficient	0.103
	P-Value	0.45
	Number	379
The amount of lost support	Spearman correlation coefficient	0.118
	P-Value	0.22
	Number	379

Discussion

The main purpose of this study was to determine social support and its relation with life satisfaction in patients with burns. The results of this study indicate that the average score of social support is high in overall support and structural support, and is low in the area of total absence. The results of this study are consistent to Nirumand Zandi study that was performed on 164 patients with burns in Tehran. The average social support score of the family is 2.25 with a standard deviation of 2.93, indicating a favorable level of social protection [4]. Also, in a study conducted by Ghasemipour et al., on patients with multiple sclerosis in Khorramabad, in terms of providing social support from supportive sources of patients, the highest average score of responses, in terms of emotional and instrumental support with mean and standard deviation ± 3.45 (0.96) and ± 3.41 (1.24) were related to receiving family support [14]. Also in a study conducted by Heydar Zadeh et al., on patients with congestive heart failure in Maragheh, the results showed that 51.2% of patients with congestive heart failure had favorable social support and had the most social support in emotional support [15]. Anayi has reported social support in self-immolation and non-self-immolation and Heydari, on patients with cancer have reported favorably; while Ahanchi in his research, the level of social support for patients with type 2 diabetes is inappropriate [4] which the difference may be in the statistical community as well as the differing factors affecting family social support and even the different nature of the disease.

Thong also suggested social support as one of the factors influencing the survival rate of hemodialysis patients. Brooks, in his study, suggests social support as a key factor in promoting health in chronic patients, and social support from the family is an effective and appropriate way to care for chronic patients and improve their health status [4].

In a study conducted by Kheyri et al., on students in Rasht, the mean and standard deviation of the total loss was calculated to be 35.0 ± 0.72 , which is indicating a low level of support in the study units [12]. While in study conducted by Ghasemi et al., on patients with burns in Tehran, most of the research units (34.8%) were only supported by their parents before the burn and only 2.2% were supported by their relatives. 74.2% of them received more support after burn and 7.8% of them were supported less [12].

Also, the results of this study indicate that life satisfaction had significant revers relationship with emotional and material support domains while it had direct significant correlation with other areas of social support (number of people in the network, duration of communication, frequency of contact, number of deleted relationships and the amount of lost support). While the results of Niruman Zandi study on the burn patients in Tehran indicates that the average social protection score of the family is 2.25 with a standard deviation of 2.93, which indicates a favorable level of social protection of the family and the average satisfaction score of the mental image was 1/43 with a standard deviation of 16.1, which indicates the inappropriate level of mental image. Regarding the correlation between the two main variables, a positive and significant correlation was found between the two groups ($P < 0.01$, $r = 0.2$) in a way that increasing social protection of the family increases the satisfaction of the mental image [4]. Also Heydari et al., in a study conducted on cancer patients in Tehran concluded that most people who had more social support had better quality of life [16].

The reason for the difference with a result of the current study with other studies is in the nature of the disease. Getting rid of physical threats and sensory disturbances following hospital discharge for burn patients is a place full of hope for recovery and return to previous life, but by entering home and confronting them with new changes and realizing the threat of the process of life, the hope turns into a mess of perception and self-perception. This is evident in most studies with different cultural backgrounds [17]. Understanding the fact that rehabilitation is a long process, leads to depression, anger and anxiety. Also burn patients may experience emotions like loss and sorrow. At home, people with burns notice changes in their abilities, roles, relationships, and face with changes. By reducing the severity of pain due to the closure of scars by grafting or healing, survivors gain more time to think about the effects of burns in their lifestyles. In this situation, the incitement of unpleasant and negative emotions leads to stumbling with oneself and the pleasure of not losing life and threatening their spirits [18].

In term of structural support, the results of this study are consistent with Ghasemipour et al. on patients with multiple sclerosis in Khorramabad. In Ghasemi Pour's study, among the structural resources of social support, the size of the network is related to the quality of life, the size of the network represents the amount of the links of one's person with others, by increasing network links and corresponding to this increase, a greater variety of network size links points out that individuals are more and more protected by engaging in multiple and diverse links with others and this support has a direct relationship with the quality of his life. Therefore, the existence and expansion of these social support resources is linked to the improvement of quality of life. The network has a direct relationship with the quality of life as a social support source, as well as with the size of the quality of life network [14].

Final conclusion

The main purpose of this study was to determine social support and its relation with life satisfaction in patients with burns. The reason for the difference in the results of this research with previous studies may be because in our society the social support of surrounding people increases at an incidence of illness in a way that exceed the required support and induce the disease and disability which provides the ground to reduce confidence and cause embarrassment feeling and, consequently, reduce life satisfaction. Also, the low economic and social conditions in these patients may require more social support, especially in terms of material and emotional aspects, which causes them to be dissatisfied. We recommend to provide

programs and classes with advisory and educational content for patients and their families to give them the information about burn disease, proper diet, and complementary therapies such as aerobic exercise, yoga and water therapy to the patient and their families to improve their physical and mental status. Also it is recommended that media, due to the availability to public, certain educational programs are designed to increase the level of awareness of patients continually and periodically to follow self-monitoring programs.

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