

# Effectiveness of Cognitive Behavioral Stress Management on Happiness and Quality of Life of Relief Workers in Red Crescent Society of Shemiranat, Iran

Mansoureh Seraj-Alghoom<sup>1</sup>, Vahideh Babakhani<sup>2</sup>, Afshin Salavian<sup>3</sup>

Date of submission: 16 Sep. 2018 Date of acceptance: 30 Jun. 2019

## Original Article

### Abstract

**INTRUDUNCTION:** Relief workers are among the groups that are present in the site from the very first moments of an accident or disaster and perform relief tasks. Various studies have shown that relief is one of the stressful activities due to a set of factors during a crisis. The present study was conducted with the aim to determine the effectiveness of the cognitive behavioral stress management (CBSM) on happiness and quality of life (QOL) among the relief workers of the Red Crescent Society in Shemiranat, Iran.

**METHODS:** In this quasi-experimental study with the pre-test and post-test design with a control group, out of all relief workers of the Red Crescent Society in Shemiranat City, 30 individuals were selected by convenience sampling method and randomly divided into two equal experimental and control groups. Then, the subjects in the experimental group were placed under the effect of the independent variable (CBSM) during 20 hours (two 10-hour workshop sessions). The instruments used in the study included the Oxford Happiness and Quality of Life Questionnaires that were implemented in both groups in the pre-test and post-test stages. Finally, the data collected were analyzed using multivariate analysis of variance (MANOVA).

**FINDINGS:** There was a significant difference between the pre-test and post-test scores in the two experimental and control groups in the variables of happiness and QOL.

**CONCLUSION:** CBSM training increased happiness and QOL among the relief workers of the Red Crescent Society.

**Keywords:** Cognitive Behavioral Stress Management; Happiness; Quality of Life; Relief Workers of Red Crescent Society

**How to cite this article:** Seraj-Alghoom M, Babakhani V, Salavian A. **Effectiveness of Cognitive Behavioral Stress Management on Happiness and Quality of Life of Relief Workers in Red Crescent Society of Shemiranat, Iran.** Sci J Rescue Relief 2019; 11(2): 72-81.



### Introduction

Nowadays, with spending heavy costs on materials, equipment, and machinery, organizations make all their effort to improve their situation, but what can enhance their efficiency and effectiveness in the long run as a competitive factor is human resources (1). According to many scholars, possessing powerful, creative, and value-creating human resources is the main tool of managers in the competition. In fact, the future belongs to an organization that can build such capacity in its human resources (2).

The importance of human in the organization is to such an extent that today he is viewed not as a resource but as a capital (3). Investigations show that focusing on human capital with approaches such as diversity in education and talent management, not only does not increase costs, but also provides value added by obtaining more profit and reducing costs and losses (4). The Red Crescent Society is among the most important organizations that is responsible for the provision of relief services by the relief workers at the time of disaster. Relief workers are among the groups

1- MSc Student, Department of Psychology, Islamic Azad University, Science and Research Branch, Tehran, Iran

2- PhD, Department of Consulting, Islamic Azad University, Abhar Branch, Abhar, Iran

3- PhD, Department of Psychology, Islamic Azad University, Science and Research Branch, Tehran, Iran

Correspondence to: Vahideh Babakhani, Email: vahideh\_babakhan@yahoo.com

that are present in the incident site from the very early moments of an accident or disaster and perform relief tasks. Various studies have shown that relief is one of the stressful activities (5). These people have poor mental health due to dealing with stressful occupational conditions (5,6). According to the results of the studies, happiness and quality of life (QOL) are among the factors affecting mental health. In other words, happiness plays an important role in improving and enhancing physical and mental health, leading to a sense of security and satisfaction in life and a higher cooperation spirit (7).

Happiness is a fundamental concept in positive psychology, which is itself one of the new branches of psychology. Happiness is the result of human judgment on how to live life. This judgment is not imposed from the outside, but is an internal state influenced by positive emotions. Accordingly, happiness is based on the personal attitudes and perceptions and implies a pleasant and favorable state that results from the experience of positive emotions (8). Evidence suggests that happiness leads to the enhanced energy and vitality, and as a shield can protect an individual against mental stress and ensure his health (9).

Happiness comprises of three essential components: "positive emotions", "life satisfaction", and "lack of negative emotions", including depression and anxiety. Studies found that positive relationships with others, purposeful living, personality development, loving others, and living are components of "happiness". Moreover, there are introduced as three types of happiness, with pleasure being the lowest level, followed by success and prosperity, and at the highest level, happiness is derived from spirituality (10).

True happiness is not gained by satisfying desires, but from doing something that is morally worth doing, that is, from manifestation of virtues (11). Scientists states that QOL has always been and is a human desire. At first, higher prosperity and longer life meant better QOL (12).

QOL is an active, dynamic, and multifaceted stream of perceptions, attitudes, and behavioral changes that are influenced by the individual's various life experiences and performance (13). According to the health model, a good QOL must include several physical, emotional, psychological, social, spiritual, and occupational

dimensions (14). There is a general consensus among researchers that the concept of QOL comprises of the two objective and subjective dimensions. The subjective dimension refers to the concept of "goodness", "life satisfaction", or "happiness", while the objective dimension depends on the individual's social functioning and environmental aspects (15). Researchers believe that investigating and striving to improve the QOL are critical to the health of the individuals and social life (16). Given the findings of studies, there is an inverse relationship between stress and QOL (17). Hard work has a negative impact on the individual's perception of the QOL as a whole and on its environmental, social, and physical dimensions in particular (18).

Stress is one of the reactions of individuals to the environment that can generate positive and negative effects for them. According to studies, the positive effects of stress can lead to the increased motivation, performance, and enjoyment among the individuals, while its negative effects can cause pressure and physical, behavioral, and psychological consequences such as anxiety, uneasiness, worry, mood swings, and heart diseases for them (19).

Stress is a state of mental tension created by a set of events, forces, or physical, mental, and social pressures, and the response to it can be adaptive and restored balance, and the energy derived from it can logically mobilize the individual, or it can be maladaptive, hence escalating stress again and maintaining instability. Therefore, all kinds of physical, psychological, and social events and pressures are the creating causes of stress. In his view, if the individual's responses to stress are adaptive, the balance will be restored and the individual will logically move on, but if the responses are maladaptive, the stress will be intensified and the instability will remain. Stress management is the ability of individuals to reduce stress and properly adapt to stressful situations (20).

Stress management training refers to a set of techniques used to enhance one's ability to cope with stress and thus reduce perceived stress (21). The cognitive behavioral technique is one of the practical methods of stress management training in which skills such as the influence of stress on patterns of thinking, emotional modes, behavior and senses, awareness of physical symptoms and communication with thoughts and emotions,

interaction of thoughts, emotions, and physical senses with each other, introducing common types of negative thinking and cognitive distortions, identifying negative thoughts, and emphasizing the replacement of rational thoughts with irrational ones are taught (22). In other words, cognitive behavioral stress management (CBSM) training seeks to enhance the individuals' sense of control, self-efficacy, self-esteem, effective coping, and social support. This reduces the changes in negative moods and social isolation and enhances the QOL (23).

Researchers believe that the individuals should be equipped with the stress coping skills to reduce its impacts when they are under stress. If stress is managed and effective coping skills are provided, the person will be able to cope properly with his life's needs and challenges. Researchers also state that methods such as control of irrational thoughts, decreased arousal, and problem-solving based techniques can be effective in increasing self-esteem, reducing anxiety and stress, and preparing individuals to better cope with the life's requirements and challenges (24). Studies show that CBSM training can be effective in reducing psychological and emotional distress such as stress, anxiety, and depression (25), using effective coping strategies (26), and increasing communication skills and hence, enhancing positive social function (27).

The findings of the studies by Faul et al. (28), Antoni et al. (29), Michalsen et al. (30), and Penedo et al. (31) indicate that stress management training improves QOL. Hosseini and Parandin (32) reviewed and confirmed the effectiveness of stress management training on happiness. Hasanzadeh and Naderi (33) examined the effectiveness of stress management training on subjective well-being, job burnout, and QOL among the Karoun Oil Company employees and concluded that stress management training increased subjective well-being and QOL and reduced job burnout among the employees. Aghaei (34) examined the effectiveness of CBSM training on psychological well-being and QOL of veterans' wives, concluding that CBSM training could enhance psychological well-being and QOL of the veterans' wives. In a study, they found that there was a positive relationship between personality traits, life satisfaction, self-esteem, and sociality with happiness, in addition to the negative

correlation of distress, loneliness, shyness, social anxiety, and stress with happiness (35).

The happiness and QOL of the Red Crescent Society relief workers can be affected considering the above issues and due to facing stressful and risky events due to their sensitive and dangerous responsibilities in the workplace and during service delivery. Therefore, the current study was accomplished aiming to determine the effectiveness of CBSM training on happiness and QOL in the Red Crescent Society relief workers.

## Methods

This was a quasi-experimental study with pre-test and post-test design with a control group. In order to achieve the goal, all relief workers of the Red Crescent Society in Shemiranat, Iran, as 30 individuals were selected by the convenience sampling method in accordance with the desired criteria (age range 35-45 years, bachelor's degree or higher, willingness to regularly participate in the sessions, and voluntary participation in the study) as the study subjects and randomly assigned into two experimental and control groups (15 in each group).

In this way, after coordinating with the officials of the rescue center of Shemiranat Red Crescent Society, necessary measures were taken to provide necessary explanations regarding the study objectives and sample selection. Then, with the announcement of the call for registration, 45 people enrolled and announced their participation. In the next step, the questionnaires were administered to each of them for the screening and pre-test purposes. The subjects who scored below the average value in both questionnaires were selected as subjects and randomly divided into experimental and control groups. After selecting the sample group, the experimental group was placed under the effect of the independent variable for 20 hours, but the control group did not receive any training. After completing the training, the questionnaires were again used for both experimental and control groups in the post-test phase. The summary of the topics outlined in the training sessions is presented in Table 1.

To determine the effectiveness of the CBSM training on happiness and QOL of Shemiranat Red Crescent Society relief workers, the Oxford Happiness Questionnaire and Quality of Life Questionnaire were utilized.

**Table 1.** Summary of cognitive behavioral stress management (CBSM) training session topics

Session	Session goals	Session practice
First	Providing a list of stressors, understanding the definition of stress, understanding the physical effects of stress, understanding the potential consequences of stress on health Understanding the effects of stress,	Exercise: Gradual muscle relaxation for 16 muscle groups, examining stress levels before and after exercise
Second	understanding the importance of awareness in stress management, increasing awareness of physical responses to stressors	Gradual muscle relaxation for 8 muscle groups, recording automatic thoughts and emotional and physical responses, recording examples of routine everyday situations causing stress
Third	Reviewing past sessions, understanding the relationship between thoughts and emotions, understanding the cycle of thoughts, emotions and physical senses, learning the evaluation process	Gradual muscle relaxation for 4 muscle groups, diaphragmatic breathing exercise, and recording stress levels before and after the exercise, imagery exercise, exercise on the communication of thoughts and emotions, recording stressful events
Fourth	Examining different types of negative thinking and cognitive distortions, practice on identifying negative thoughts, understanding the impact of negative thinking on behavior	Exercise on diaphragmatic breathing with imagery and recording stress levels before and after exercise, passive gradual muscle relaxation exercise with imagination of a specific location, practice on identifying cognitive distortions and associated emotions, completing a sheet for monitoring stress responses and types of negative thinking
Fifth	Identifying rational and irrational self-talk, learning the steps of replacing negative thoughts, practicing the replacement of rational thoughts with distorted thoughts	Recording stress levels before and after the relaxation exercise, exercising identification of rational and irrational self-talk exercises, completing sheets on replacement of rational thoughts for three separate stressful situations, and completing the worksheet of situations that will be tackled this week.
Sixth	Integrating stress management and relaxation in life, understanding the definition of coping, learning the types of coping, identifying your coping style	Recording stress levels before and after the relaxation exercise, completing a self-assessment of skills, completing my coping style worksheet, completing a coping response monitoring sheet for the stressful situations you encounter this week.
Seventh	Learning and practicing stress coping steps, exercising softening for overwhelming stressors	Recording stress levels before and after the relaxation exercise, recording daily self-monitoring sheet at specified times, practicing division of general stressors, practicing coping plan, recording a sheet of monitoring the proportionality of the coping behaviors assessment for at least three separate situations
Eighth	Learning about anger, knowledge of anger responses and patterns, learning anger management	Mantra meditation practice, recording your stress levels in the daily self-monitoring sheet at specified times, reviewing your responses to the self-assessment questionnaire: Spread anger awareness, recording anger responses in the anger awareness sheet
Ninth	Learning interpersonal styles, practicing expressive communication, understanding the barriers to expressive behavior, using problem-solving skills for conflicts, reviewing steps in expressive behavior	Meditation practice of breath counting twice a day, practicing alternative expressive responses, completing self-assessment on barriers to expressive behavior, practicing creation of expressive phrases and effective listening
Tenth	Understanding the benefits of social support, evaluating social support networks, identifying barriers to social protection, learning stress management techniques to maintain social support	Domestic relaxation practice

**Oxford Happiness Questionnaire:** The Oxford Happiness Questionnaire, developed by Argyle and Lu, included 29 four-choice items that were

scored from 0 to 3 on a four-point scale. The subjects' scores ranged 0-87. Argyle and Lou calculated the reliability of the questionnaire as

0.9 and 0.78 using the Cronbach's alpha coefficient and the test-retest method with a seven-week interval, respectively. Hills and Argyle (36) reported the internal consistency coefficient of the questionnaire as 0.91.

The questionnaire was translated and its reliability and validity were determined in a sample of students in Tehran, Iran. Jafari et al. (37) reported a reliability of 0.73 for the questionnaire using the Cronbach's alpha method at six weeks interval. In addition, Najafi et al. (38) obtained the Cronbach's alpha coefficient and test-retest reliability of the questionnaire as 0.90 and 0.79, respectively. Moreover, the convergent and divergent validity coefficients of the questionnaire were reported as high and acceptable.

**Quality of Life Questionnaire (short form):** This questionnaire consisted of 26 items examining four dimensions of QOL of individuals as physical health, psychological health, social relations, and perception of living environment with respectively 7, 6, 2, and 8 items. The first two items did not belong to any dimension and assessed overall health and QOL. The response to the items was set in 5 options of not at all, very little, moderate, high, and very high with scores of respectively 1-5 and items 3, 4, and 26 were scored negatively. The minimum and maximum scores on this scale were 25 and 125, respectively (39). In Iran, the Cronbach's alpha coefficient was reported as 0.73-0.89 for the four subscales and the whole scale. The reliability of the scale was assessed by the test-retest (with three-week interval), split-half, and Cronbach's alpha

methods, all of which indicating the desirability of the scale. Furthermore, the validity of this scale for the physical health, mental health, social relations, and living environment dimension were reported to be 0.70, 0.77, 0.65, and 0.77, respectively (40).

Finally, the pre-test post-test data in the two sections of the descriptive and inferential statistics including central (mean) and dispersion [standard deviation (SD)] indices and multivariate analysis of variance (MANOVA), multivariate analysis with Levene's assumptions, Box, and Kolmogorov-Smirnov (K-S) tests and were analyzed in SPSS software.

## Findings

The pre-test post-test mean and SD of the happiness and QOL (physical health, psychological health, social relations, environment and life status, and overall health and QOL) scores of the subjects in the experimental and control groups are presented in Table 2.

Given this Table, in the experimental group compared to the control group, the scores of the happiness and QOL variables (physical health, psychological health, social relations, environment and life status, overall health and QOL) were increased in the posttest compared to the pre-test.

The K-S test and Levene's test were employed to evaluate the normal distribution of the variables of happiness and QOL and the homogeneity of variances, respectively, with the results shown in Tables 3 and 4.

**Table 2.** Mean and standard deviation (SD) of happiness and quality of life (QOL) scores in the experimental and control groups

Group	Variable	Pre-test		Post-test	
		Mean	SD	Mean	SD
Experimental	Happiness	58.1	12.69	64.75	10.14
	Physical health	25.6	3.2	28.5	3.83
	Mental health	21	3.71	25.05	4.53
	Social relations	10.65	2.77	12.35	1.66
	Environment and life status	29.15	5.36	29.95	4.53
	overall health and QOL	6.75	1.91	8.35	1.26
Control	Happiness	58.7	11.91	57.65	11.81
	Physical health	25.05	3.23	25.05	2.89
	Mental health	20.7	2.93	19.75	3.1
	Social relations	10.4	2.43	11.3	3.35
	Environment and life status	28.6	4.13	27.35	3.71
	overall health and QOL	6.6	2.47	6.65	1.95

QOL: Quality of life; SD: Standard deviation

**Table 3.** Kolmogorov-Smirnov (K-S) test for happiness and quality of life (QOL) in pretest and posttest stages

Group	Variable	Pre-test		Post-test	
		Z	P	Z	P
Experimental	Happiness	0.091	0.200	0.132	0.200
	Physical health	0.169	0.136	0.098	0.200
	Mental health	0.106	0.200	0.192	0.053
	Social relations	0.126	0.200	0.152	0.200
	Environment and life status	0.113	0.200	0.191	0.055
	overall health and QOL	0.193	0.052	0.159	0.200
	Happiness	0.127	0.200	0.129	0.200
	Physical health	0.177	0.103	0.154	0.200
Control	Mental health	0.191	0.52	0.132	0.200
	Social relations	0.156	0.200	0.156	0.200
	Environment and life status	0.108	0.200	0.162	0.178
	overall health and QOL	0.158	0.200	0.165	0.175

QOL: Quality of life

According to this table, the Z characteristic of the K-S test related to the normality of the two experimental and control groups, happiness and QOL scores (physical health, psychological health, social relations, environment and life status, overall health and QOL) in the pre-test and post-test stages indicates that the scores were of a normal distribution ( $P > 0.05$ ) and the data normal distribution assumption has been realized.

**Table 4.** Levene's test to examine homogeneity of variances between the two groups

Scale	df1	df2	F	P
Happiness	1	38	3.330	0.064
Physical health	1	38	0.527	0.454
Mental health	1	38	2.815	0.102
Social relations	1	38	1.726	0.197
Environment and life status	1	38	0.025	0.876
overall health and QOL	1	38	2.81	0.101

QOL: Quality of life

Based on this table, the Levene's test results indicate that the variances for happiness and QOL scores (physical health, psychological health, social relations, environment and life status, overall health and QOL) are the same ( $P > 0.05$ ). Hence, the assumption of similar variances in both experimental and control groups has been observed.

Regarding the establishment of the covariance test hypotheses, the difference between the mean scores of happiness in the post-test after controlling the pre-test scores was significant ( $P = 0.002$ ,  $F_{(1,37)} = 10.669$ ). In other words, after controlling the pre-test scores, there was a significant difference between the experimental and control groups with mean values of 64.75 and 57.65, respectively. That is, CBSM training with an effect

size of 0.222 increased happiness among the relief workers of the Red Crescent Society in Shemiranat.

Additionally, there was a significant difference between the experimental and control groups in the combined variable entered the MANOVA model ( $\text{Eta}^2 = 0.455$ ,  $P < 0.05$ ,  $F = 4.849$ ). Given the Eta coefficient obtained, it was found that about 46% of the difference between the experimental and control groups was due to the intervention. The test power was due to the significance of the Wilks' Lambda test.

In accordance with Table 5, the post-test comparison of the variables indicated that there was a significant increase in the physical health, psychological health, and overall health and QOL in the two groups controlling the pretest effect after training CBSM to the subjects in the experimental group compared to the control group. In physical health ( $P = 0.003$ ,  $F_{(1,33)} = 10.031$ ), after controlling the pre-test scores, there was a significant difference between the two experimental and control groups with mean values of respectively 28.39 and 25.15. That is, stress management training with an effect size of 0.233 enhanced the physical health of the relief workers. Furthermore, in the psychological health variable ( $P = 0.0001$ ,  $F_{(1,33)} = 16.961$ ), after controlling the pre-test scores, there was a significant difference between the experimental and control groups with means of 25.057 and 19.74, respectively. That is, the stress management training with an effect size of 0.339 increased the psychological health of the Red Crescent Society relief workers in Shemiranat. Moreover, the overall health and QOL variable ( $P = 0.005$ ,  $F_{(1,33)} = 9.036$ ), after controlling the pre-test scores, there was a significant difference

**Table 5.** Post-test comparison of quality of life (QOL) in two groups with pre-test effect control

Sources of changes		Degree of freedom	Mean squares	F	Significance level	Effect size
Group	Physical health	1	103.681	10.031	0.003	0.233
	Mental health	1	280.081	16.961	0.0001	0.339
	Social relations	1	0.007	0.001	0.974	0.0001
	Environment and life status	1	58.112	3.398	0.074	0.093
	overall health and QOL	1	26.975	9.036	0.005	0.215

QOL: Quality of life

between the experimental and control groups with mean values of 8.32 and 6.67, respectively, indicating that the stress management training with an effect size of 0.215 improved the overall health and QOL of the relief workers of the Red Crescent Society of Shemiranat. It should be noted that there was no significant difference between the experimental and control groups in the variables of social relations and environment and life status.

### Discussion and Conclusion

The findings of the present study revealed that there was a significant difference between the mean scores of happiness in the post-test in the experimental and control groups. That is, CBSM training increased the happiness of the relief workers. These results are in line with the results of the studies by Faul et al. (28), Antoni et al. (29), Michalsen et al. (30), and Penedo et al. (31), and Hosseini and Parandin (32). In explaining these findings, it can be concluded that happiness is inversely related to stress. In other words, the relief workers with a higher happiness scores had lower stress scores. The techniques of relaxation and identification of automatic negative thoughts and replacing positive and true thoughts with them, the emotion management power, social networking, and how to use it, and healthy social relations that are factors of happiness, are emphasized in the stress management skills training. By providing realistic assessments and proper recognition, CBSM causes the individuals to release the sense of self-estrangement and gaining insights into the cognitive distortions and beliefs, find a sense of self-worth which in turn increases the sense of commitment and control among them (41).

Through creating changes, the CBSM intervention can reduce negative mood swings and thus increase happiness through training that enhances self-control, adaptive coping, self-efficacy, and self-esteem, hence decreasing stress

hormone levels, and improving the immune system function (42). For example, the relaxation and meditation techniques are highly effective in alleviating the physical symptoms of stress, in other words, the behavioral stress management strategies, such as relaxation, meditation, or muscle relaxation, can reduce anxiety and stress, as people identify the stress-related physical symptoms and by mastering relaxation that is incompatible with stress, they reduce their stress and anxiety; or by increasing cognitive restructuring (CR) and challenging negative thoughts, these strategies increase the individuals' awareness of their incompatible mental thoughts and images. In other words, the cognitive-behavioral strategies including awareness, cognitive assessment of distorted thoughts about the stressful events and challenging thoughts, training adaptive thinking skills to manage various concerns, and modifying coping strategies implemented in the stress management program, all contribute to reducing stress and subsequently, increasing happiness.

Other findings in the current study suggested that after controlling the pre-test scores, there was a significant difference between the experimental and control groups in the areas of physical health, psychological health, and overall health and QOL. However, there were no significant differences in the variables of social relations and environment and life status. In other words, the CBSM training promoted physical health, psychological health, and overall health and QOL in the Red Crescent relief workers. The results are in line with the findings of the studies by Faul et al. (28), Antoni et al. (29), Michalsen et al. (30), and Penedo et al. (31), Hasanzadeh and Naderi (33), and Aghaei (34). The way one processes and thinks about the stressful events directly affects his emotions, behavior, and physical health. With mental imagery and exposure techniques, the link between memories and emotional reactions is reduced, enabling the individual to imagine and

process without disturbance. In fact, exposure alone can lead to cognitive changes, as it disrupts the avoidance pattern and reduces emotional responsiveness to environmental cues associated with QOL. In a CBSM intervention, relief workers learn to refuse to think about ineffective ways of managing stressful situations and to use CR techniques (43). Acquiring CBSM skills enables relief workers to perceive the stressful events occurring in the workplace from a more balanced perspective. This in turn may enable them to be more adaptable to stressful job opportunities (44), which in turn enhances QOL in them.

In today's world of rapid change and evolution, adaptation to changes is one of the factors for maintaining stability, reliability, and development, and evaluating the effectiveness of programs is one of the tools for measuring the adaptability of the organizations' human resources to these ever-increasing changes, and it can undoubtedly be effective in the organizational growth and maturity. The organizations in which the human resource quality, material, and spiritual resources are increasingly valued and they are constantly seeking new information and practical solutions to achieve better productivity and efficiency, benefit from the dynamics, creativity, and growth characteristics needed to create effective developments in the inter-organizational factors and interact with their social environment.

Today, the development of countries, organizations, and small and large institutions depends on human science and the use of modern equipment. The rapid development in science and knowledge has led organizations to put education at the forefront of their programs. Because education is one of the most important factors in the development of countries, and the foundation of development of countries and organizations is related to creativity and innovation of their human resources. This need is more felt in relief organizations that are responsible for maintaining, providing, and promoting health, controlling and preventing illnesses, and providing relief at times of disasters (45). Because relief workers are one of the groups that are present at the scene from the first moment of an accident or disaster and provide the relief services. As declared in various studies, relief is a stressful activity due to a combination of factors in times of crisis (46). Psychological complications such as stress,

depression, etc. that occur after natural and non-natural events for the relatives of victims who were directly exposed to these events have led medical texts to examine the consequences of the damage sustained by relief workers, in addition to paying attention to coping strategies to relieve mental stress.

Given the foregoing issues, and considering that the programs in the relief organizations are viewed from two perspectives as human resource improvement with the aim of enhancing staff and training relief workers and improving material and spiritual resources, and with the logic that relief workers are one of the most important components of the relief organizations, they must respond to the needs and requests of the individuals in the society and work to save their lives or improve their health (45).

The present study indicated that CBSM training increases the happiness and QOL of the Red Crescent Society relief workers. It is suggested that CBSM skills be continuously used in rescue centers as an extracurricular and complementary activity to enhance happiness and QOL among the staff. Furthermore, the rescue centers and counseling centers should also consider training and treatment programs to change and enhance the ability of the relief workers to manage their stress with the aim of promoting QOL as extracurricular program or alongside other programs.

### Acknowledgments

The authors would like to appreciate all authorities of the Red Crescent Society of Shemiranat who assisted us in this study as well as all relief workers who attended the sessions with patience and completed the questionnaires.

This study was derived from a M.Sc. thesis approved with code 69042 at the Faculty of Humanities and Social Sciences, Islamic Azad University, Science and Research Branch, Tehran.

### Conflict of Interests

Authors have no conflict of interests.

### References

1. Welch CL, Welch DE. What do HR managers really do? HR roles on international projects. *Manag Int Rev* 2012; 52(4): 597-617.
2. Nafukho FM. Capacity building through investment in people: Key to Africa's development. *European*

Journal of Training and Development 2013; 37(7): 604-14.

3. Gamerschlag R. Value relevance of human capital information. *Journal of Intellectual Capital* 2013; 14(2): 325-42.
4. Wright Card R. Talent management. Trans. Goudarzi AM, Hosseini SJ. Tehran, Iran: Rasa Publications; 2014. [In Persian]
5. Dayyeri Z, Sarvghad S, Barzegar M. The relationship between coping strategies with stress, self-efficacy and psychological hardiness in relief workers of red crescent society of Kohgiluyeh & Boyer-Ahmad Province. *Sci J Rescue Relief* 2015; 6(4): 66-75. [In Persian]
6. Van Steenbergen H, Band GP, Hommel B. In the mood for adaptation: How affect regulates conflict-driven control. *Psychol Sci* 2010; 21(11): 1629-34.
7. Yaghoobi A. The study of relation between spiritual intelligence and rate of happiness in Bu-Ali University Students. *Journal of Research in Educational Systems*: 2010; 4(9): 85-95. [In Persian]
8. Hills P, Argyle M. Happiness, introversion-extraversion and happy introverts. *Pers Individ Dif* 2001; 30(4): 595-608.
9. Pelechano V, Gonzalez-Leandro P, Garcia L, Moran C. Is it possible to be too happy? Happiness, personality, and psychopathology. *Int J Clin Health Psychol* 2013; 13(1): 18-24.
10. Nasouhi Dehnavi M, Ahmadi SA, Abedi MR. The relationship between happiness and school factors in high school students. *Knowledge & Research in Applied Psychology* 2004; (19): 33-50. [In Persian]
11. Car A. Positive psychology/science of happiness and human power. Trans. Pasha Sharifi H, Najafi Zand J, Sanaei B. Tehran, Iran: Sokhan Publications; 2008. [In Persian]
12. Sohbat Lo M. The effectiveness of group therapy reality therapy in quality of life in women [MSc Thesis]. Abhar, Iran: Abhar Branch, Islamic Azad University; 2012. [In Persian]
13. Herbert LJ, Clary L, Owen V, Monaghan M, Alvarez V, Streisand R. Relations among school/daycare functioning, fear of hypoglycemia and quality of life in parents of young children with type 1 diabetes. *J Clin Nurs* 2015; 24(9-10): 1199-209.
14. Montagne J, Pizza W, Peters K, Eippert G, Poggiali T. The Wellness solution. *J Act Aging* 2002; (18): 67-81.
15. Shah R, Kulhara P, Grover S, Kumar S, Malhotra R, Tyagi S. Contribution of spirituality to quality of life in patients with residual schizophrenia. *Psychiatry Res* 2011; 190(2-3): 200-5.
16. Makvandi S, Zamani M. The survey of quality of life and its dimensions in Islamic Azad University Ahvaz Branch students in 2010. *Jentashapir* 2012; 2(4): 191-9. [In Persian]
17. Olia Z. Comparison of stress and its relation to women's quality of life [MSc Thesis]. Tehran, Iran: University of Social Welfare and Rehabilitation Science; 2006. [In Persian]
18. Cimete G, Gencalp NS, Keskin G. Quality of life and job satisfaction of nurses. *J Nurs Care Qual* 2003; 18(2): 151-8.
19. Saeida-Ardakani S, Konjkav-Mofared A, Hakkaki SM, Mansouri M. The effect of emotional intelligence on job stress management methods. *Journal of Management and Development Process* 2012; 25(1): 5-26. [In Persian]
20. Linden W. Stress management: From basic science to better practice. Thousand Oaks, CA: SAGE Publications; 2008.
21. Carrico AW, Antoni MH, Pereira DB, Fletcher MA, Klimas N, Lechner SC, et al. Cognitive behavioral stress management effects on mood, social support, and a marker of antiviral immunity are maintained up to 1 year in HIV-infected gay men. *Int J Behav Med* 2005; 12(4): 218-26.
22. Jabbari Z. Effect of stress management on cognitive-behavioral stress on stress, anxiety and depression in pregnant women [MSc Thesis]. Zarand, Iran: Zarand Branch, Islamic Azad University; 2012. [In Persian]
23. Gavelin HM, Boraxbekk CJ, Stenlund T, Jarvholm LS, Neely AS. Effects of a process-based cognitive training intervention for patients with stress-related exhaustion. *Stress* 2015; 18(5): 578-88.
24. Gardiner P, Sadikova E, Filippelli AC, Mitchell S, White LF, Saper R, et al. Stress management and relaxation techniques use among underserved inpatients in an inner city hospital. *Complement Ther Med* 2015; 23(3): 405-12.
25. Carrico AW, Antoni MH, Duran RE, Ironson G, Penedo F, Fletcher MA, et al. Reductions in depressed mood and denial coping during cognitive behavioral stress management with HIV-Positive gay men treated with HAART. *Ann Behav Med* 2006; 31(2): 155-64.
26. Lutgendorf SK, Antoni MH, Ironson G, Starr K, Costello N, Zuckerman M, et al. Changes in cognitive coping skills and social support during cognitive behavioral stress management intervention and distress outcomes in symptomatic human immunodeficiency virus (HIV)-seropositive gay men. *Psychosom Med* 1998; 60(2): 204-14.
27. De Vente W, Kamphuis JH, Emmelkamp PM, Blonk RW. Individual and group cognitive-behavioral treatment for work-related stress complaints and sickness absence: A randomized controlled trial. *J Occup Health Psychol* 2008; 13(3): 214-31.
28. Faul LA, Jim HS, Williams C, Loftus L, Jacobsen PB. Relationship of stress management skill to psychological distress and quality of life in adults with cancer. *Psychooncology* 2010; 19(1): 102-9.

29. Antoni MH, Lechner SC, Kazi A, Wimberly SR, Sifre T, Urcuyo KR, et al. How stress management improves quality of life after treatment for breast cancer. *J Consult Clin Psychol* 2006; 74(6): 1143-52.

30. Michalsen A, Grossman P, Lehmann N, Knoblauch NT, Paul A, Moebus S, et al. Psychological and quality-of-life outcomes from a comprehensive stress reduction and lifestyle program in patients with coronary artery disease: Results of a randomized trial. *Psychother Psychosom* 2005; 74(6): 344-52.

31. Penedo FJ, Dahn JR, Molton I, Gonzalez JS, Kinsinger D, Roos BA, et al. Cognitive-behavioral stress management improves stress-management skills and quality of life in men recovering from treatment of prostate carcinoma. *Cancer* 2004; 100(1): 192-200.

32. Hosseini B, Parandin S. The effectiveness of stress management training on happiness in mothers of mental ill-students in Ilam. Proceedings of the 8<sup>th</sup> International Conference on Psychology and Social Sciences; 2018 July 22; Tehran, Iran. [In Persian]

33. Hasanzadeh F, Naderi F. The efficacy of stress management training on subjective well-being, job burnout and quality of life in Karoun oil company employees. *Journal of Social Psychology* 2017; 5(44): 45-58.

34. Aghaei O. The effectiveness of stress management training on cognitive-behavioral stress on psychological well-being and quality of life of veterans wives [MSc Thesis]. Shahroud, Iran: Shahroud Branch, Islamic Azad University; 2016. [In Persian]

35. Barkhori H, Refahi J, Farahbakhsh K. The effect of positive thinking skills into a team approach on achievement motivation, self-esteem, and happiness of the first grade students. *Journal of New Approach in Educational Administration* 2009; 2(5): 131-44. [In Persian]

36. Hills P, Argyle M. The Oxford Happiness Questionnaire: A compact scale for the measurement of psychological well-being. *Pers Individ Dif* 2002; 33(7): 1073-82.

37. Jafari E, Liaghatdar MJ, Abedi MR. Happiness, and its degree of effective factors in students of the Isfahan Medical Sciences University. *Teb Tazkiyah* 2004; (54): 15-23. [In Persian]

38. Najafi M, Dehshiri G, Dabiri S, Sheikhi M, Jafari N. Psychometric properties of Farsi version of the oxford happiness questionnaire among college students. *Training Measurement* 2013; 3(10): 55-73. [In Persian]

39. Rahimi M, Khayyer M. The relationship between family communication patterns and quality of life in Shiraz high school. *Studies in Education & Psychology* 2009; 10(1): 5-25. [In Persian]

40. Nasiri H, Razavi A. Study of the quality of life of students in Shiraz University based on the World Health Organization's Quality of Life Scale (WHOQOL-BREF), Proceedings of the 3<sup>rd</sup> Students' Mental Health Seminar; 2006 May 3-4; Tehran, Iran. [In Persian]

41. Abniki E, Abolghasemi A, Abbasi M, Moazzez R, Jalali R. The effect of group cognitive-behavioral intervention in stress management on improved hardness and self-control in depressed women. *Clinical Psychology Studies* 2015; 5(19): 99-118. [In Persian]

42. Antoni MH, Ironson GH, Schneiderman N. Cognitive-behavioral stress management for individuals living with HIV: Facilitator guide. Oxford, UK: Oxford University Press; 2007.

43. Bamber MR. CBT for occupational stress in health professionals: Introducing a schema-focused approach. London, UK: Routledge; 2006.

44. Orly S, Rivka B, Rivka E, Dorit SE. Are cognitive-behavioral interventions effective in reducing occupational stress among nurses? *Appl Nurs Res* 2012; 25(3): 152-7.

45. Shahrani F, Mortazavi A, Asadian G, Jafar Nejad F, Abjam Z. The view of Chaharmahal & Bakhtiari Red Crescent society personnel about short-term training courses in 2008. *Sci J Rescue Relief* 2009; 1(2): 30-6. [In Persian]

46. Khodabakhshi-Koolae A, Falsafinejad M, Moghaddam F, Mojarrab M. Effectiveness of stress management training on life quality and occupational burnout among firefighters of Tehran. *J Torbat Heydariyeh Univ Med Sci* 2018; 6(1): 11-9. [In Persian]