



COMPARISON OF EMOTIONAL REGULATION SKILL AND HEALTH-PROMOTING LIFESTYLE IN PATIENTS WITH CARDIOVASCULAR DISEASES AND NORMAL PEOPLE IN KERMAN CITY

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ABSTRACT

This study aimed to compare emotional regulation skill and health-promoting lifestyle in patients with cardiovascular diseases and normal people in Kerman City. Research method was causal-comparative, and statistical population of this study consisted of 100 cardiovascular patients admitted to Shafa hospital for angiography from September 23, 2015 to November 2015. Statistical population of healthy subjects also consisted of 100 people from patients' families. Data collection was done according to health-promoting lifestyle questionnaire by [1] and Garnefski's Emotional Regulation Skill Questionnaire (2001). Independent t-test was applied for data analysis. According to research findings, there was a significant difference between emotional regulation skill in patients with cardiovascular diseases and normal people. There was also a significant difference between health-promoting lifestyle and components namely physical activity, diet, responsibility, spiritual growth in patients with cardiovascular diseases and normal people. The highest difference was observed between spiritual growth and amount of physical activity in patients with cardiovascular diseases and normal people.

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Introduction

Statement of problem

Economic and industrial development and also growth of communications have led to mechanization of life followed by lifestyle changes and increased emotions and onset of cardiovascular diseases (coronary artery diseases). A healthy heart is a must for human life despite the fact that most of patients with cardiovascular diseases have learned how to have a full and productive life with an ill heart. Cardiovascular diseases do not belong to specific age or gender, and all people at any age and gender may be at the risk of these diseases. However, their risk or complications can be reduced by taking effective and timely measures. Some people are more susceptible to cardiovascular diseases due to hereditary background or inappropriate lifestyles, and thus, knowledge about risk factors of these diseases helps those with these factors to prevent and control cardiovascular diseases. According to studies, stress is the cause of cardiovascular disease in individuals. [3].

Cardiovascular disease is the top cause of premature mortality and endangers millions of people's life in developed and developing countries every year, and incurs billions of dollars due to the death and disabilities. It is forecasted that nearly 25 million deaths from heart disorder will occur from 2020 per year, and this disease is among the first deadly and debilitating causes [4]. Promotion of healthy lifestyle is one of the ways to cope with cardiovascular diseases.

Lifestyle refers to usual and daily routine activities accepted by people in their lives, so that these activities affect the human health [5]. Selecting a lifestyle, a person takes measures such as following the right diet, sleep and activity, exercise, body weight control, non-smoking and non-consumption of alcohol and cigarette, and immunization against diseases to maintain and promote his health and prevent diseases. This set of measures is called lifestyle [6]. Health requires promotion of a healthy lifestyle which can lead individual satisfaction [7]. Lifestyle is significantly important since it affects all aspects of life and prevents diseases. Promotion of health and provision of individual health and happiness are among the important pillars of community development [8].

Hygiene considerations, which previously focused on disease treatment, now focus on prevention and health provision through improvement of lifestyle and elimination of factors which have negative impact on human health. The use of positive behavioral models affects promotion of individual health [5]. 53% of causes of mortality are related to human lifestyle [9]. Most health problems such as obesity, cardiovascular diseases, different types of cancer and addiction which are now prevalent in most countries especially developing countries, are associated with changes in their residents' lifestyles. In particular, non-communicable diseases and the way of communication with other people have close relationship with lifestyle, and in other words, lifestyle is one of the important determinants of health, and thus the lack of lifestyle modification will lead to irreversible consequences in the future. The "lifestyle" term requires changes in behavior which constitutes a major part of routine habit [10].

On the other hand, health-promoting behavior has attracted the researchers' great attention to research and develop programs in this field as a key issue in health promotion concept. A person's definition of health is at the heart of health-promoting perspective. At this stage, health is defined using positive qualities proposed by the World Health Organization (WHO). Health means realization of human potential and maintenance of objective balance and orientation in the environment. Walker defined the health-promoting lifestyle as follows: "A multidimensional model of perceptions and actions initiated by a person's motivation which sustains and strengthens levels of personal health and self-actualization". Health-promoting behavior has a potential impact on health improvement and quality of life, and, and at the same time, it reduces cost of health care. According to studies, health-promoting lifestyle contributes to positive life [11].

Furthermore, the ability to cope with life excitement can also affect improvement of cardiovascular disease. The symptoms of long-term cardiovascular disease include psychological symptoms such as depression, anxiety, irritability, confusion, and unsociability. These symptoms cause problems for people in proper expression and identification of their emotions. The following question rises in this regard: What is the reaction of person with cardiovascular disease in an emotional situation? Recently, there are a lot of studies on behavioral and cognitive interventions of the "Third Wave" in the field of mental disorders; and emotional acceptance and regulation is one of them. Emotion regulation has been studied by numerous researchers such as Golman, Shateh and Mayer as one of psychological variables [12]. Shateh et al. (2007) presented a lot of evidence that emotional regulation is relevant to success or failure in various life areas [12]. According to Aysberg et al. (2000), emotion regulation plays an important role in our adaptation to stressful life events. Research results indicate that individual capacity for effective emotion regulation affects psychological, physical and interpersonal happiness. Emotional regulation needs sufficient interaction of cognition and excitement to deal with negative conditions. Emotional regulation is examined according to two frameworks namely emotional regulation strategy before and after an incident [13]. Theoretically, emotional regulation variables such as emotional acceptance may allow those, who are vulnerable to emotion, to be at present time and place, and thus instead of showing an excessive and anxious reaction to situation (e.g. Catastrophizing), they have a more objective understanding of level of threat [14].

Arteriosclerosis, arterial hypertension and heart failure (infarction) are the most important and well-known cardiovascular diseases which can be developed or intensified by emotion. People with high blood pressure or heart failure background have also experienced more stress. On the other hand, people with cardiovascular diseases should rethink about their lifestyles and avoid excessive emotion. Since cardiovascular diseases play important roles in patients' emotional regulation skill and lifestyle, there is a need for applied-fundamental research on this field. In summary, such research will raise the officials and experts' awareness and lead to more attention to this group of people.

According to the above-mentioned cases, the researcher is seeking to compare emotional regulation skill and health-promoting lifestyle in patients with cardiovascular diseases and normal people in Kerman City; hence, the following questions will be answered:

- 1- Is there any difference between patients with cardiovascular diseases and normal people in terms of emotional regulation skill?
- 2- Is there any difference between patients with cardiovascular diseases and normal people in terms of health-promoting lifestyle?

Research methodology

This research was descriptive and used causal-comparative method. Statistical population of this study consisted of patient group including people with cardiovascular diseases admitted to Shafa hospital for angiography from September 23, 2015 to November 2015. Statistical population of healthy subjects also consisted of 100 people from patients' families. Census-based sampling was conducted for patients, and simple random sampling for healthy subjects. Sample size was equal to 100 for each group. Collected data was analyzed using SPSS 20 software with independent t-test.

Health-promoting lifestyle questionnaire:

This questionnaire consists of 30 questions which measure 6 subscales called diet (questions 1, 6, 12, 18, 24, 26 and 29), physical activity (questions 3, 5, 10 and 17), health responsibility (questions 8, 14, 20, 30 and 19), stress management (questions 2, 11, 16, 21, 27, 28 and 13), interpersonal relationships (questions 4, 9, 15, 22 and 25) and spiritual growth (question 7). Questions are designed based on 4-point Likert scale (never with "point 0 and "always with "point 3"). Validity of questionnaire is desirable according to research by [1]. Walker and Polerecky reported Cronbach's alpha of 0.94 for Health Promoting Lifestyle Profile II. (HPLPII) tool, and range of 0.79-0.94 for its subscale [11].

Cognitive-emotional regulation questionnaire:

Emotional skill questionnaire is a self-assessment questionnaire which was designed by Garnefski, Crich and Spinhoven in 1999 and introduced in 2001 [2]; it investigates individual thoughts after negative experiences. The original version with 9 components (acceptance, self-blame, rumination, positive refocusing, planning refocusing, positive reappraisal, catastrophizing, and blaming others) has 36 items. In a Persian questionnaire by [12]. On 15-17 year-old students in Karaj County, factor analysis of Bartlett's and KMO tests was significant. According to obtained results, rotary component matrix was formed for four factors; and 10 questions were eliminated and thus the number of questions was reduced from 36 to 26. Reliability of this test was obtained equal to 0.75 by Cronbach's alpha method.

Findings

According to obtained results of data analysis, 38% (n=38) of patients were female and 62% (n=62) were male; and 53% (n=53) of healthy subjects were female, and were women 47% (n=47) were male.

Table 1. T-test statistic for difference between emotional regulation and health-promoting lifestyle in patients with cardiovascular diseases and normal people

Statistical indices	Group	No.	Mean	Standard deviation	Mean differenc	Levene's test		T	Degree of freedom	Significance level
						F	Alpha			
Emotion regulation skill	Patient	100	70.8	18.54	6.31	3.542	0.061	2.21	198	0.028
	Normal	100	77.1	21.56						
Health promotion lifestyle	Patient	100	40.8	12.42	3.66	0.087	0.768	2.19	198	0.03
	Normal	100	37.2	11.18						

Independent t-test was used to examine difference between emotional regulation and health-promoting lifestyle in patients with cardiovascular diseases and normal people. According to results, p-value (significance) was smaller than significance level of $\alpha=0.05$. Therefore, it can be concluded that the emotional regulation skill and health-promoting lifestyle are significantly different between patients with cardiovascular diseases and normal people. According to mean comparison, the emotional regulation skill is higher in normal people than patients with cardiovascular diseases. Furthermore, health-promoting lifestyle in cardiovascular patients is higher than normal people.

Conclusion

According to results, emotional regulation skill is significantly difference in patients with cardiovascular diseases and normal people. These results are consistent with findings of research by [15] indicating that there is a significant difference between normal and patient women in terms of emotional regulation. They are also consistent with research by [16] indicating that normal people obtained higher scores in reappraisal component and lower scores in emotional suppression component than patients. Therefore, individual capacity affects psychological, physical and interpersonal happiness in effective emotion regulation. Emotion regulation such as emotional acceptance may allow people, who are vulnerable to emotion, to be at present

time and place, and thus instead of showing an excessive and anxious reaction to situation (e.g. Catastrophizing), they have a more objective understanding of level of threat. Emotions have very sensitive and fundamental status because they have very close relationship with needs and motivations and can form roots of many mental or psychological disorders. Emotions can even guarantee human health. For instance, in the case of fear, human overcome it; and he will attack enemy because of anger. Based on this finding, normal people mainly experience positive emotions and have a positive self-appraisal of events, while patients have negative appraisal of incidents and their life status and mostly experience negative emotions such as anxiety, depression, and anger.

According to results, there is a significant difference between health-promoting lifestyle in patients with cardiovascular diseases and normal people. These results are consistent with findings of research by [15] indicating that there is a difference between ill and healthy females in terms of quality of life. They are also consistent with research by [16] indicating that postmenopausal women with coronary artery diseases have significant different life styles from healthy women. Therefore, lifestyle refers to daily routine activity and affects individual health. Selecting a lifestyle, a person takes measures such as following the right diet, sleep and activity, exercise, body weight control, non-smoking and non-consumption of alcohol and cigarette, and immunization against diseases to maintain and promote his health and prevent diseases. Lifestyle promotion can be started as a multidimensional model of perceptions and actions with self-motivation which helps maintenance and improvement of health and self-actualization level. When a person promotes his health by doing activities such as exercise in all circumstances, has appropriate diet program which creates and promotes health, assesses his choices and views with respect for others' rights, and finally ultimately accepts consequences of his actions and decisions, a sense of commitment to other people and social rules and criteria as well as understanding group rules will be created in his mind and behavior, and he will strive to strengthen its spiritual dimension in his life and consider spirituality and also religious principles and rituals in his decisions and relationships, and thus he will be satisfied. On the basis, health-promoting behavior has a potential impact on improvement of health and quality of life. Patients' health-promoting lifestyles, which refer to the whole behavior controlled by person, reduce likelihood of individual exposure to harm, and maintain or increase levels of self-actualization, well-being and satisfaction in people. Furthermore, selection of lifestyle affects individuals' health and longevity.

Therefore, it is suggested creating an emotional safe environment to promote emotional regulation, so that patients can freely and confidently talk with their relatives about their feelings. Furthermore, all community members especially patients are suggested promoting their health and prevent diseases by taking health measures.

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