Comprising the Quality of Life and Depression in Heart Failure Patients and Healthy Individuals

Sara Mathmir¹, Seyed Hamzeh Hosseini²*, Maryam Nabati³

1. 1Department of Psychology, Sari Branch, Islamic Azad University, Sari, Iran
2. Psychiatry specialist, Consultant Psychiatry Fellowship from Australia and Faculty Member of Mazandaran University of Medical Sciences
3. Assistant Professor of Cardiology, Fellowship of Echocardiography, Department of Cardiology, Mazandaran University of Medical Sciences, Sari, Iran
*Corresponding Author Email: hosseinish20@gmail.com

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ABSTRACT: The purpose of the current investigation was to compare quality of life and depression in heart failure patients and healthy individuals. The population of study included all referrals to Al-Zahra hospital of Sari, Iran and two cardiologist doctors’ offices from October 2nd till December 11th in the year 2014 for check-ups or treatment. Sampling method and the sample size were 200 cardiac patients as purposeful and 100 healthy subjects randomly that a total of 300 subjects in two groups of 200 cardiac patients and 100 healthy subjects were selected to complete questionnaires of the research. Questionnaires of HADS and quality of life SF-12 were used to measure the depression and the quality of life respectively. T-test for the two samples was used independently as well as SPSS software for data analysis. The results showed that there were significant differences in depression and quality of life between heart failure patients and healthy individuals so that, depression in people with heart failure was more than in healthy people and the quality of life was less in heart failure patients rather than in healthy individuals.

Introduction

Cardiovascular disease causes the most deaths among all the physical and physiological diseases that threaten human life today and in general, specialists agree that a large number of deaths due to cardiovascular disorders can be prevented through opposition with known risk factors that many of them are behavioral in nature (Kring et al., 2007; Translated by Shamsipour, 2011). One could say mental disorder occurs when the person lost the power of upkeep and maintenance of balance positions to the environment with any reason and thus, being unable to accept the performance of daily activities. As mentioned above, cardiovascular disease is one of these disabilities which is considered as the chronic diseases. The performance of the person is strongly affected in this disease and it is associated with physical, mental and social changes as well as lifestyle changes and often leads to an increase in mental health problems (Cully, 2009). Shortness of breath and fatigue that are the main symptoms in these patients can restrict their activities in daily life and cause exercise intolerance. The main outcomes for patients with these symptoms are mental disorders, side effects of treatment and disrupted social constraints. These factors may cause people to abandon their former activities and social contacts and to lose their social relationships and supports (Dunder Dale, 2005). Patients with heart failure are prone to depression (Redwine, 2007). Various researches have examined the relationship between negative emotions, especially anxiety and depression with heart disease. For example, researchers have shown that anxiety is associated with the onset of heart disease in humans (Kawachi et al., 1994). Studies on animals have also shown that anxiety in animals with atherosclerosis can precipitate a heart attack (Carpeggiani and Skinner, 1991). Moreover, those cardiac patients who have depressive disorder compared with others are more likely to die within 6 months after a heart attack more than 5 times (Glassman and Shapiro, 1998). It is almost certain that these factors interact with biological factors for influences that have on cardiac disease. For example, anxiety is associated with the activation of the sympathetic nervous system which can lead to hypertension and the enzolosclerosis. Research has also shown that depression is associated with a higher chance of clumping of platelets and thus arterial congestion. Moreover, depression is attended often with an increase in steroidal hormones which increase the blood pressure and damage the cells in the arteries. A depressive disorder that is an important psychological factor discussed in this research includes of disorder in the emotional state or mood of an individual. The main feature of depressive disorders is that people feel dysphoria or boredom sadness. Bored mood was more intense than the normal disappointments and occasional tragic emotions of everyday life can
be emerged as severe melacholia or much apathy to the former aspects of life. Somatic symptoms of depression period are called biological or physical symptoms. A stricken person is exhausted and experiences slowing of physical movement that is called psychomotor agitation. Health is one of the categories and components of quality of life, yet it is not equal to it, that’s because of the definition of the World Health Organization on health which is as the absence of any physical, mental and social defects, while the quality of life is the feeling of satisfaction from the life and this life may be associated with health or not. Therefore, quality of life has a broad concept that includes all aspects of life and health is the center of the quality of life. So, the present study was seeking to answer the question of whether depression and quality of life is different in heart failure patients and healthy individuals.

Materials And Methods

The research method was descriptive and causal-comparative. The population of the study included all patients admitted to Al-Zahra hospital of Sari, Iran, and two cardiologist doctors’ offices from October 2nd till December 11th in the year 2014 for check-ups or treatment. At first, a document about cardiac patients and those who were healthy after their checkup in two months of the second half of 2014 were received from three medical centers of Sari, Iran. The sample was determined by the number of 200 cardiac patients purposefully and 100 healthy individuals randomly that a total of 300 subjects in two groups of 200 cardiac patients and 100 healthy subjects were selected to complete questionnaires of the research. In the implementation of the project, it was described in detail how to respond to the test for participants after introductory remarks about the guages and the purpose of the test. About the ethical considerations, after obtaining the consent of the people and informing them the necessary knowledge, they were assured that the information would be used only in this research and be protected from any abuse. The following questionnaires were used to measure the research’s variables.

Hospital Anxiety and Depression Scale (HADS)

Hospital anxiety and depression scale questionnaire was designed by Zigmond and Snaith (1983) as a screening tool for psychiatric disorders in ambulatory clinics of public hospitals. This measures the depression and anxiety in outpatients parallelly (Sherafati, 2012). So far, lots of investigations have been performed on the reliability and validity of the HADS scale in different countries and different parts of the hospital clinics. Harter showed that this instrument can be used as a valid screening tool to detect the resemblance of anxiety disorders and depression in patients with skeletal-muscular disorders. Lopez also showed detection accuracy of this scale in testing the anxiety and depression symptoms at the same time in these clinical populations by using this test on Mexican obese patients. HADS scale is a screening tool with appropriate reliability, validity and sensitivity. In addition to clinical application, this tool can be used in researches other than detection section. This 3-4 point selective inventory was designed to measure changes in mood, especially depression and anxiety states. There were seven questions related to symptoms of anxiety (Questions 12, 9, 8, 5, 4, 1 and 13) and seven questions about symptoms of depression (Questions 11, 10, 7, 6, 3, 2 and 14) in this scale. The questionnaire was scored based on a four-score scale (3, 2, 1, 0). The authors suggested the score 11 as the cut-off point which higher scores had clinical importance. High scores on the depression scale indicated that other treatments should also be considered apart from opposition ways for anxiety.

Quality of Life Questionnaire

The concept of quality of life was concerned by scientists of psychology, economics, politics, sociology and medicine as an interdisciplinary subject since the 1930s. So, it has been raised several explanations and definitions on the meaning of quality of life. The World Health Organization has defined this concept in 2000 so that the quality of life is the perception of people from their position in life in terms of culture, value system where they live, goals, expectations, standards and priorities, then this is quite individual and cannot be observed by others and rests on the understanding of individuals from different aspects of their lives (Mahmoudjanlou, 2014). There are several questionnaires to measure quality of life, which can be noted to the 192-question questionnaire, WHOQOL-BREF and 100-WHOQOL scales of the World Health Organization and 36 and 26-item questionnaire. One questionnaire that is often used to quick measure is the 12-question quality of life questionnaire. Independent t-test was used to analyze the data. In all analyzes, the significance level was considered as $p <0.05$.

Results

The independent t-test was used to compare the quality of life and depression in heart failure patients and healthy individuals. The findings are shown in Table 1. It can be said that there was a significant difference in the mean score of depression among healthy individuals and cardiac patients ($p <0.000$).

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>T</th>
<th>df</th>
<th>Mean difference</th>
<th>Standard deviation</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>0.907</td>
<td>11.301</td>
<td>298</td>
<td>5.062</td>
<td>0.447</td>
<td>0.000</td>
</tr>
</tbody>
</table>
According to Table 2, it can be concluded that there was a significant difference in the mean score of the quality of life among cardiac patients and healthy individuals (P<0.000).

Table 2. Results of t-test on the quality of life among cardiac patients and healthy individuals

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>T</th>
<th>df</th>
<th>Mean difference</th>
<th>Standard deviation</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of life</td>
<td>0.249</td>
<td>-13.997</td>
<td>298</td>
<td>-7.477</td>
<td>0.534</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Discussion

The purpose of current study was to compare depression and quality of life in heart failure patients and healthy individuals. The results showed that depression and quality of life were significantly different in heart failure patients and healthy individuals so that, depression in people with heart failure was more than in healthy people. This was consistent with the findings of investigations of Vaezzadeh and Hosseini (2013), Variae et al. (2013), Ebadi (2011), Ghaleieha et al. (2011), Maleki and Heidari (2009), Corvera et al. (2003), Aroma et al. (2009), Follath (2011) and Lesperance (2000) which were performed by the aim of examining the relationship of depression with heart failure patients. Other findings showed that the quality of life in heart failure patients and healthy subjects differed significantly so that, the quality of life of healthy individuals was more than heart failure patients. This finding was consistent with the results of Ghaem-montazar et al. (2011), Abbasi et al. (2011), Shafipour et al. (2011), Abedi et al. (2011), Riedinger et al. (2001), Cohen et al. (2007), Rassart et al. (2012), Imayama (2011), Johnsson et al. (2008), Carson et al. (2010), Masoudi et al. (2009) which were conducted in this regard. According to research findings and in order to train the prevention and treatment of depression in patients after infection, it was recommended to set up and strengthen centers providing consulting services to cardiac patients, so that people, especially patients with heart failure access it easily. Also it was emphasized to inform men and women by the general and intersectional contribution about the factors affecting the quality of life through effective media, and specific training in the level of centers and institutions of higher education, in line with a comprehensive instruction to all segments of society especially men and women suffering from heart failure on issues including the impact of automatic negative thoughts and how to prevent and treat this dysfunctional thoughts and improve in quality of life through training skills and their impact on the health of men and women.

References


Maleki H, Heidari A. 2009. Factors relating and affecting anxiety and depression in cardiac patients in Hamadan, Journal of Medical Sciences of Hamadan.


