

To Study the Relationship Between Psychological Hardiness and Satisfaction with Life in Patients with Coronary of Heart Disease

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Abstract: The aim of the research was to study the relationship between psychological hardiness and satisfaction with life in patients with coronary of heart disease. The statistical study consisted of all patients with coronary artery disease during summer and fall of 2015 admitted to Golsar hospital in Rasht where 200 people were selected in a sampling method as a statistical sample. The research method was based on correlation and questionnaires of measuring the psychological hardiness of Ahvaz and life satisfaction were used to collection of data. Data were analyzed using Pearson's statistical and multivariate regression. The results showed that there was a significant relationship between psychological hardiness and satisfaction with life in patients with coronary of heart disease. The 12.1% of changes for satisfaction with life in patients with coronary of heart disease can be explained using changes of psychological hardiness.

Key words: Life satisfaction, psychological hardiness, patients with coronary heart disease, heart disease, Golsar hospital

INTRODUCTION

Coronary heart disease in most industrialized countries constitutes the first cause of death. In addition, coronary artery disease is associated with significant effects and disability. Clinical spectrum of coronary heart disease of anemia (ischemia) without fuss and without mark up to chronic stable angina, unstable angina, acute myocardial infarction (heart muscle), ischemic heart disease (ischemic cardiomyopathy) and sudden cardiac death are changing. In recent decades, the use of coronary heart disease of newer methods of drug therapy and new surgical and interventional procedures, gradually the number of deaths from coronary heart disease has been declined (Simeoni *et al.*, 2012).

Since the access is not possible in practice to cure the patients, a debilitating and progressive nature of coronary artery disease and the impact of multiple factors on worsening or improving on the quality of life of patients are effective and the reduction of quality of life affects satisfaction in their lives.

Life satisfaction in the thought of some means hope for the future while the hope for the future is one of the results of life satisfaction or dissatisfaction so that when a person is completely satisfied with their lives, his future is hopeful. Consent of life has a much broader concept than hope for the future, according to some people, life satisfaction is to be ideal for all spatial and temporal conditions and the availability of all facilities for healthy

and polished living, while the true meaning of life satisfaction is current positive attitude of an individual towards life with all the difficulties and hardships, the bitterness and frustrations and along with it, victories and success, happiness and talent development are included (Motevalli *et al.*, 2009).

On the other hand, life satisfaction is assumed as the difference between what one wants and what it is basically, this is mentioned as the difference between how to achieve a fact and an ideal. According to this theory, satisfaction with life is specified by one's personal perception of how things are against how they can be. The comparison between how things are and what that person wants to be, it is expected that others want and what a person feels. Individual merits have been described for determining life satisfaction. Sirjic's theory (1998) explains in this method the ways in which people achieve judge on life satisfaction. In his opinion, expectations of what they could do it, the past positions of the individual, personal ideas, what one feels from their merits, what one requires being pleased in short and what a person finally believes that this may happen, they have been compared that they help identify life satisfaction altogether (Inanlou, 2011). Several factors can contribute to people's satisfaction with life. One of these factors is personality features of individuals and one of the characteristics that can be studied in patients with coronary artery disease is hardiness. Psychological hardiness is a positive personality structure which

has been emphasized for the first time by Maddi and Khoshaba (2012) in the decade of eighty of the twentieth century based on the theories of personality. Kobasa (1979) defines psychological hardiness as the combination of beliefs about oneself and the world constituting from three components of commitment, control and challenge. Kobasa (1988) presented this theory that psychological hardiness is a set of personality features that plays as a source of resistance when faced with stressful life events; this reduces the possibility of disease symptoms and originates from different and useful experience of childhood. He showed that people who possess great tenacity, although they experience a high degree of stress, they are patient and sick. These people in terms of hardiness are different from those who become sick in stressful conditions (Narimani and Abbasi, 2009).

Strong people have strong sense of responsibility and purpose and they have dominance over events and instead, they consider changes as a threat it is considered a source of growth (Rush *et al.*, 1995). Toughness is a shield against intense physiological arousal on the effects of stressful events that Sileh and other researchers consider it as a vulnerability factor against diseases (Narimani and Abbasi, 2009).

Given the prevalence and incidence of coronary heart diseases in different populations and that this is an important health and public problem, today, the disease follows many problems for the patient and high cost for society and on the other hand, on the one hand, today, people not only tend to increase with age but they also need to life satisfaction and life satisfaction is the biggest wish and most important goal of human life that affected people more than any other factor of mental health. Due to increasing need for patients with coronary heart disease, the attention to life satisfaction in them is important more than before. In this regard, the present study was implemented and designed to determine the relationship between psychological hardiness and satisfaction with life in patients with coronary heart disease.

MATERIALS AND METHODS

The aim of the research was to study the relationship between psychological hardiness and satisfaction with life in patients with coronary of heart disease. The statistical study consisted of all patients with coronary artery disease during summer and fall of 2015 admitted to Golsar hospital in Rasht. In a sampling method, 200 people (100 people were men and 100 people were women) of the statistical study who intended to participate in the research were selected as a statistical sample. The instrument used in the study is as follows:

Scale of measurement of the psychological hardiness in

Ahraz: Hardiness questionnaire has 27 items; obtaining high scores on this scale indicate high mental toughness in person. Grading the 27-point questionnaire is in this form that the subjects answer to one of four options “never,” “rarely,” “sometimes,” “often” and based on values 0, 1, 2, 3, they are scored. With the exception of items 6, 21, 17, 13, 10, 7 which have negative loadings and they are scored reversely. The score range in this questionnaire is from 0-81. To assess the validity of this questionnaire, four test criteria are used for the anxiety, depression, self-actualization and definition of hardiness structure. Psychological hardiness questionnaire is associated with anxiety questionnaire ($r = 0.55$), depression questionnaire ($r = 0.062$), self-actualization questionnaire ($r = 0.55$) and with the structural definition of psychological hardiness ($r = 0.51$) which these coefficients are satisfactory credit. To calculate the reliability of this questionnaire, two test-retest and internal consistency methods are used. Test-retest reliability coefficients obtained between subjects' scores on two occasions (test-retest) for all subjects are 0.84, for positive subjects are 0.85 and for the subjects of male are 0.84. Also, Cronbach's alpha coefficient for all subjects is 0.76, for positive subjects are 0.74 and for male subjects are 0.76. According to the findings above, the reliability coefficients of the questionnaire is also satisfactory.

Questionnaire of life satisfaction: The questionnaire was prepared by Diener (1998). The questionnaire contains 48 questions that reflected the condition of life and sense of well-being and factor analysis showed that was composed of three factors and finally this reduced to five questions and used as a scale of separation which the validity and credibility were also confirmed. This questionnaire includes 5 items and each has seven options which in this study is scored from one (strongly disagree) to seven (strongly agree). In a research performed by Mansouri, the validity and reliability obtained 0.77 using the method of bisecting. Also, in the study of Habibi on students, Cronbach's alpha obtained 0.81.

RESULTS AND DISCUSSION

The aim of the research was to study the relationship between psychological hardiness and satisfaction with life in patients with coronary of heart disease. To examine this hypothesis, Pearson correlation and multivariate regression methods were used. The results presented in Table 1-3.

Table 1: Pearson correlation coefficient for the relationship between psychological hardiness and life satisfaction

Variables	Life satisfaction	Psychological hardiness
Life satisfaction	1**	
Psychological hardiness	0.355***	1*

*, **, ***p<0.05, 0.01, 0.001

Table 2: The role of psychological hardiness on life satisfaction of coronary heart disease

Variables	Sum of squares	df	Square of mean	F	Sig.	R	R ² corrected
Regression	264.214	1	264.214	28.514	0.001	0.355	0.121
Remaining	1834.661	198	9.266				
Total	2098.875	199					

Forecast: (constant); psychological hardiness. Criteria: life satisfaction

Table 3: The share of psychological hardiness on life satisfaction of coronary heart disease

Standardized coefficients		Non-standardized coefficients			
Bstandard error	Betatsig	B	SE	B	Sig.
Constant value	15.005	1.443	-	10.398	0.001
Psychological hardiness	0.19	0.036	0.355	5.34	0.001

According to the results of Table 1, calculated correlation coefficients at the level of $p < 0.001$ are significant ($r = 0.355$, $p = 0.000$). This result shows that there is a significant relationship between psychological hardiness and satisfaction with life in patients with coronary of heart disease. On the one hand, this relation which is 0.355 is in a direct (positive).

According to data in Table 2, the value of $R = 0.355$ and of R^2 corrected is calculated 0.121. $F_{(1,198)} = 28.514$ and $p < 0.001$ showed that there was a correlation between psychological hardiness and satisfaction with life in patients with coronary of heart disease. In other words, 12.1% of changes of life satisfaction in patients with coronary of heart disease could be explained using changes of psychological hardiness.

With regard to the issues raised and on the basis of Table 3, the following regression equation can be considered to predict life satisfaction of coronary heart disease:

$$\text{Life satisfaction} = 15.005 (\text{constant value}) + 0.19 (\text{psychological hardiness})$$

The results of a correlation coefficient calculated showed that psychological hardiness ($r = 0.355$) was significant with life satisfaction at the level of $p < 0.001$. This result showed that there was a significant relationship between psychological hardiness and satisfaction with life in patients with coronary of heart disease and 12.1% of changes of life satisfaction in patients with coronary of heart disease could be explained using changes of psychological hardiness. This finding is consistent with the results such as Aqayousefi and

Shahndeh (2012) and Hamid (2007). In the research of Aqayousefi and Shahndeh (2012) also obtained that psychological hardiness and expression of anger was directly related to the quality of life in coronary heart disease. In the research of Jafari, it was showed that there was a significant relationship between psychological hardiness and well-being and mental health of the elderly. Besharat also in their study showed that there was a negative and significant relationship between hardiness and physiological responses such as blood pressure and respiratory rate, heart rate, systolic and diastolic and affected hardiness through creating self-reliance and confidence and calmness, physiological responses. Hamid also in his study showed that hardiness feature reduced the negative effects of stress on heart disease and people who are stubbornly low are prone to coronary heart disease.

CONCLUSION

This result of the research is consistent with the study of Barton *et al.* (2015), Maddi and Khoshaba (2012) and Carson (2007). Barton *et al.* (2015) showed that psychological hardiness and metabolism and production of cholesterol had a relationship which was the risk of the factor for heart disease. Kobasa *et al.* (1982) also showed that whatever people are tougher, they assess less stressful conditions. As it was said that in the late 1970s, Salvador, Maddi and Kobasa suggested stubbornly belief as a vital system to protect the health and performance against stress in the longitudinal study and they concluded that ardent personality was protected from illnesses related to mental health and tenacity components using more consistent strategies and increasing the perception of their ability to cope with a source of stress resulted in increasing human health. Carson showed that a group of AIDS patients with more tenacity had the higher psychological well-being and they were more to seeking treatment. In explaining this, it should be noted that since based on Wiebe and Williams, threatening an event and barren coping responses is a factor for increasing physiological arousal, frequent and prolonged physiological arousal to pressure and impaired immune function and eventually also leads to disease but psychological hardiness using a change in the assessment of events and effective coping methods prevent negative and traumatic psychological arousal. In high tenacity, a person changes stress to a positive phenomenon and finally prevents negative effects on health. Since patients with coronary artery disease dramatically collide with the problems of life, so it can be found that many of them are more vulnerable in the face

of life events. On the one hand, because life satisfaction is a subjective and unique concept to every human being, generally refers to cognitive assessments of a person of his life (Delahajj *et al.*, 2010) and because physical or emotional characteristics have some effects on the quality of life, including one's perception of general health, social activities and so on, it can be said that the problems of physiological and psychological problems in these patients reduce their quality of life. However, this happens when people value with psychological hardiness for their efforts and act more than chance, they regard change as a part of life and they do not consider changes as a threat (Kobasa, 1988; Roshan and Shakeri, 2010) as a result, they do not show the problems with the mood of helplessness and submission but they fight. Therefore, having a positive relationship between these features and a higher level of life satisfaction is acceptable because hardiness feature can predict an acceptable size from people's physical and mental health (Kobasa *et al.*, 1982) and since stress plays a vital role in the development of coronary heart disease, psychological hardiness can act as a shield against stress and increase the level of life satisfaction in coronary heart disease during the time.

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