The Prediction of Life Satisfaction based on Psychological Tenacity and Dimensions of Perfectionism in Patients with Coronary Heart Disease

Mojgan Zamiri Moghaddam, Bahman Akbari
Department of Psychology, Rasht Branch, Islamic Azad University, Rasht, Iran

*Corresponding Author Email: bakbari44@yahoo.com

ABSTRACT This study aimed to predict life satisfaction based on psychological tenacity and dimensions of perfectionism in patients with coronary heart disease. To achieve the purpose of this study and testing its hypotheses, 200 people with coronary heart disease referred to Golsar hospital of Rasht, during the summer and fall of 2015 were selected. The method used in this study for sampling was available sampling and then data were collected and analyzed. The methodology was designed and set based on the principles of correlation. For collecting the data, the Positive and Negative Perfectionism questionnaire, life satisfaction and Ahvaz psychological tenacity questionnaires were used. In inferential analysis part, Pearson parametric statistics and multivariate regression were used. The findings showed that, there was a significant relationship between tenacity and life satisfaction in patients with coronary heart disease. There was a relationship between positive and negative perfectionism and life satisfaction in patients with coronary heart disease. On the other hand, the share of dimensions of perfectionism in predicting life satisfaction in patients with coronary heart disease is 0.122 for positive perfectionism and -0.109 for negative perfectionism respectively.

KEYWORDS Life Satisfaction, Psychological Tenacity, Perfectionism, Coronary Heart Disease.
INTRODUCTION

Coronary artery disease, including atherosclerosis, is a major cause of death in most of the world and it imposes a huge cost to society. It is predicted that by 2020, heart disease will kill 25 million people annually (Sheferd & While, 2012). Coronary artery disease is one of the most serious health problems and causes of disability in developed and developing countries.

Since the access to cure the patients is not possible in practice, debilitating and progressive nature of coronary artery disease and the effects of many factors on its intensification and improvement influenced the quality of life of the patients. Therefore the quality of life in patients with coronary artery disease is an important indicator and one of the main goals of care and treatment of patients. Evidence showed the prevalence of coronary heart disease in Iran. In epidemiological studies examined its incidence for the first time in adults over 30 years living in Tehran in 2005, the prevalence rate is 21.8 percent. According to statistics attained in 2008 out of every hundred thousand cases of heart disease around 167 deaths reported in the country (Hadavyegh et al., 2010). This disease has affected the quality of patient lifes and this can affect the patient's life satisfaction. Some people think that Life satisfaction means hope for the future, while hope for the future is one of the results of life satisfaction or dissatisfaction. So that when someone in his personal life is quite happy he will be more hopeful about his future.

Discussion of hope for the future is much more general concept of life satisfaction, some people think that life satisfaction is ideal spatial and temporal conditions and availability of all facilities for healthy living. While the actual concept of life satisfaction means the positive attitude towards on-going life, with all the difficulties and hardships and bitterness, along with victories, successes and failures, happiness and growing potential abilities (Motavali et al., 2010).

In addition, life satisfaction has a close meaning to meaning of happiness, so that someone who is happy with his life feel more joy than someone who is dissatisfied with his life. Life satisfaction is defined as cognitive judgment process during which the individual compares his condition with criteria that he considers appropriate. According to this approach, the less the imaginary distance between the achievements and aspirations of the individual is the more satisfaction will be (Ulker, 2008).

Tenacity is personality traits that all people have some degree of it. This structure has three components: commitment, control and challenge the individual can be protected despite living in quite stressful conditions. Tenacious people have strong sense of responsibility and purpose and a sense of mastery over events, and they considered changes as a source of growth instead of being seen as a threat (Rush et al, 2012).

Tenacity is the basic feeling of control that allows you to design and access to a list of strategies. Finally tenacity foster an optimistic view against stressful situations. In other words, the combativeness enable tenacious person to be able to change the unpleasant incidents as an opportunity for learning and a threat to safety and take into account all these aspects prevent or shorten the duration of the negative consequences of stress. And indeed tenacity is a shield against intense physiological arousal which cause by stressful accidents that Sile and other researchers consider it as vulnerability to disease (Narimani & Abbasi, 2010). Tenacious acts as moderator of the relationship between stress and psychological and physical disease.

People who have a strong psychological tenacity in comparison to those with poor psychological resilience, it is less probable that in response to stress encounter with physical or psychological injury. Empirical findings confirms the moderating role of psychological tenacity compared to lateral pressure. The Brannon and Feist (1997)
features hardiness is as follows: The Brannon & Feist (1997) tenacity features is as follows:

1. considerable curiosity
2. The desire to have fun and meaningful experiences
3. The belief in the effectiveness of what is mental imagery
4. A belief that change is natural and any important driver can cause growth and progress can
5. assertiveness and strength
6. The ability of endurance and resistance. The various features can be useful for coping with life stressful events (Paleologou & DellaPorta, 2013).

Perfectionism is a stable tendency of a person to complete and unattainable criteria and trying to actualize them with critical self-assessment of personal performance, interpersonal, interpersonal and social perfectionism. Perfectionism has three distinct dimensions, self-oriented perfectionism, social-perfectionism, and other-oriented perfectionism. Self-oriented perfectionism is determined by tendency to impose unrealistic standards for themselves and focus on their flaws and failures in performance along with precise monitoring. Other-focused perfectionism tendency to excessive expectations and critical evaluation of others and social-perfectionism tries observe the standards and to meet expectations prescribed by important people in order to gain approval (Hewitt & Flett, 2012). He and colleagues (2004) defined perfectionism as the belief of a person to completeness, anxiety, high psychological pressure and fear of being unable to live up to our expectations.

Moreover, from their perspective, perfectionism is a common debilitating phenomenon, and perfectionists are sensitive to negative emotional states such as guilt, feelings of failure, low self esteem and Carelessness. Most theories suggest that self-esteem is long-standing personality traits, and refers to some hypothetical and general levels of self-assessment and self-respect. In other words, it is the individual's understanding of himself, but this perception is associated with value judgments and involves a degree of self-esteem and self-acceptance (Wei et al., 2004). The results of research on perfectionism have confirmed positive and negative effects of perfectionism on the thoughts, emotions and behaviors. This group of perfectionists consider various fields of activity and social relations threatening, imposing and non-supportive.

In contrast, normal perfectionists, while they impose high personal standards for themselves and can accept environmental and personal limitations and consider themselves successful persons, even if not completely achieved their personal standards. In terms of their ability to accepting personal limitations and environmental impediments, They try to succeed and achieve their goals and they can experience the sense of satisfaction. (Eslani Nasab, 2014). According to what was said in this research the question is: what is the relationship between life satisfaction based on psychological tenacity and dimensions of perfectionism in patients with coronary heart disease?

**MATERIALS AND METHODS**

This study aimed to predict life satisfaction based on tenacious and dimensions of perfectionism was conducted in patients with coronary heart disease. The population of this study included all patients with coronary artery disease who during the summer and autumn of 2015 referred to Golsar hospital in Rasht. By using availability sampling method 200 patients (100 males and 100 females) who tend to participate in the study were selected as sample. The instruments used in the study include:
Positive and negative perfectionism questionnaire: positive and negative perfectionism questionnaire of Terry-Short et al (1995) has 40 phrases, 20 phrases measures the positive perfectionism and 20 negative perfectionism. Each is based on a 5 degree Likert scale measures perfectionism of subjects from grade one to grade five in both positive and negative aspects. Terry-Short et al (1995) raised Cronbach's alpha positive and negative perfectionism .83 and .81 respectively and the characteristics of the questionnaire were appropriate. Basharat (2006) obtained Cronbach's alpha for each subscale questions in a sample of 212 students was .90 for all students, .91 and .88 for female students and .89 and .86 for male students respectively which is the sign of high level of internal consistency.

Life Satisfaction Questionnaire: This questionnaire was prepared by Diener et al. (1998). The questionnaire contains 48 questions that reflected the situation of life and sense of well-being. Factor analysis showed that it was made by three factors and eventually reduced to the five questions and was used as a separate scale that its validity and credibility has been confirmed. These include 5 principles seven nd each principle has seven options in this study scored from one (strongly disagree) to seven (strongly agree).

Ahvaz scale measurement of the psychological tenacity: the tenacity questionnaire has 27 principles, obtaining high scores on this scale indicates high psychological tenacity. Grading of the 27-point questionnaire is in a way that the subjects answer to one of four options of "never," "rarely," "sometimes," "often" and are scored based on the values of 0, 1, 2, 3. With the exception of Article 6, 21, 17, 13, 10/7, which has a negative loading and are scored in reversed style? The score range is 0 to 81 is in this questionnaire. To assess the validity of this questionnaire four test criteria, that is, the anxiety, depression, self-actualization and structural definition of tenacity questionnaire and r depression questionnaire was used. Tenacity questionnaire with Anxiety Inventory (0.55 = r) has significant relationship Depression Scale Depression Scale (r = -.62), self-actualization questionnaire (r = -.55), the structural definition of tenacity (r0 = .51) and the reliability coefficients are satisfactory. To calculate the reliability two methods of the test-retest reliability and internal consistency were used. Test-retest reliability coefficients obtained between subjects' scores twice (test-retest). It was .85 for all subjects and 0.84 for male subjects. Moreover, the Cronbach's alpha for all subjects was .76, for positive subjects was 0.74 and 0.76 for male subjects. According to the findings, reliability coefficients of the questionnaire is satisfactory (Kyamrsy, 2009).

RESULTS

This study aimed to predict life satisfaction based on tenacity and dimensions of perfectionism in patients with coronary heart disease. To examine this hypothesis, Pearson correlation and multivariate regression methods used and the results are presented in the following tables. According to the results obtained from Table 1, calculated correlation coefficients for psychological tenacity (r=0.355), positive perfectionism (r= 0.349) and negative perfectionism (r= -0.270) with life satisfaction levels p<0.001 is significant. This result shows that there is a significant relationship between tenacity and dimensions of perfectionism and life satisfaction among patients with coronary heart disease. The value of this relationship for tenacity and positive perfectionism is direct (positive) and for negative perfectionism is reverse (negative).
Table 1. Pearson correlation coefficient for the relationship between life satisfaction and psychological tenacity and dimensions of perfectionism.

<table>
<thead>
<tr>
<th>variable</th>
<th>Psychological tenacity</th>
<th>positive perfectionism</th>
<th>negative perfectionism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life satisfaction</td>
<td>0.355***</td>
<td>0.349***</td>
<td>0.270***</td>
</tr>
</tbody>
</table>

0.05<P** 01<P*** 0.001<P***

Table 2. The role of hardiness and dimensions of perfectionism on life satisfaction coronary heart disease.

<table>
<thead>
<tr>
<th>SS</th>
<th>df</th>
<th>Root means</th>
<th>F</th>
<th>Sig.</th>
<th>R</th>
<th>R2 corrected mean square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>587.440</td>
<td>3</td>
<td>195.813</td>
<td>25.393</td>
<td>0.001</td>
<td>0.529</td>
</tr>
<tr>
<td>reminding</td>
<td>1511.435</td>
<td>196</td>
<td>7.711</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2098.875</td>
<td>199</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Predictor: (fixed amount), psychological tenacity, positive and negative perfectionism
Criteria: life satisfaction.
According to the data in table 2, R= 0.529 and corrected mean square R2=0.529 was calculated. F (3.196)= 25.393 and p<0.001 showed that there is a meaningful correlation between psychological tenacity and dimensions of perfectionism and life satisfaction of coronary heart disease. In other words, 26.9 percent of life satisfaction changes of coronary heart disease can be explained by the tenacity changes and dimensions of perfectionism.

Table 3. Share hardiness and dimensions of perfectionism in predicting life satisfaction in coronary heart disease.

<table>
<thead>
<tr>
<th>Non-Standardized coefficient</th>
<th>Standardized coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Standard Error</td>
</tr>
<tr>
<td>fixed value</td>
<td>17.430</td>
</tr>
<tr>
<td>psychological tenacity</td>
<td>0.170</td>
</tr>
<tr>
<td>positive perfectionism</td>
<td>0.106</td>
</tr>
<tr>
<td>negative perfectionism</td>
<td>-0.112</td>
</tr>
</tbody>
</table>

According to what is said and based on table 3, the regression equation used to predict life satisfaction of coronary heart disease:
Satisfaction with life: (Negative perfectionism=-.112) + (positive perfectionism=.106) + (psychological tenacity=.170) + (fixed value =17.430)

DISCUSSION AND CONCLUSION

The Results of calculated correlation coefficients variables such as psychological hardness (r= 0.355), positive perfectionism (r = 0.349) and negative perfectionism (r= - 0.270) with life satisfaction is meaningful at the level of p <.001. This result shows that there is a significant relationship between psychological tenacity and dimensions of perfectionism and life satisfaction among patients with coronary heart disease. The value of this relationship for psychological tenacity and positive perfectionism is positive and for negative perfectionism is reverse (negative). Also the regression amount of R= .529 and corrected root means (R2) = 0.269 was calculated. F (3.196) = 25.393 and
p<0.001 showed that there is a meaningful correlation between psychological tenacity and dimensions of perfectionism and life satisfaction with coronary heart disease. In other words, 26.9 percent of life satisfaction changes of coronary heart disease can be explained by the changes in tenacity and dimensions of perfectionism. The finding of the research is in line with researches done by Savari (2014) and Basharat et al. (2012). Savari (2014) in his research showed that psychological tenacity and perfectionism correlated with negative and positive psychological health.

Basharat et al (2012) also found that negative perfectionism through the imposition of anxiety, worry, distress and negative emotions can enhance physiological responses. And tenacity through the creation of self-confidence, confidence and peace of mind affects physiological responses and influence on blood pressure, heart rate, respiratory rate and heart disease.

Fiozabad and his colleagues (2009) in their research found that there is a significant relationship between psychological tenacity, negative perfectionism and positive perfectionism and quality of life of dyspepsia patients. Tenacity and perfectionism predicts the quality of life of dyspepsia patients. And tenacity and perfectionism have important role in the quality of life of patients with dyspepsia. Psychological tenacity feature by providing resistance against stress and coping appropriate strategies can increase the hope of the people (Ong et al., 2006); The feeling of having control in life that resulted from psychological tenacity will lead to the belief that a person consider his life's events as a result of his actions instead of considering them as a result external and not-considered factors. this can lead to the belief that the person is more responsible for his or her life and to have more motivation to pursue his goals.

Tenacious person has more access to a set of useful strategies (Madi & khoshaba, 2005; quoted by Hamid, 2011). Because using of tenacity will help person to realize purpose and meaning of life and discover the value of passionate life, learn to be patient and defiance in the face of difficulties and challenges, bear hard and stressful events and ultimately he gets closer to self, family and society by which he will also increase life satisfaction (Shohohifard et al., 2014).

The results also showed that there is a relationship between life satisfaction and dimensions of perfectionism. Perfectionism has both positive and negative dimensions, for explanation of the negative correlation between life satisfaction and negative perfectionism it should be said that people with this trait tend to have extreme self-criticism (Savari, 2014). this criticism with suspected capabilities (Mohammadi & Jokar, 2011) and grievances of the people can reduce the level of life satisfaction, while positive perfectionism that has a positive effect on people's self-concept. This indirectly affects the psychological health of the person (Vetonchy et al., 2013). In fact, the adoption of high and reasonable standards for performance itself is not only acceptable, but also it increases people's motivation and desire to succeed. And the distinction between positive and negative perfectionism is self-criticism and blame after defeat. Therefore, taking into account cognitive flexibility in positive and normal perfectionist it is reasonable to expect that these people experience higher level of satisfaction from life than negative perfectionism (Nori Samrin et al., 2014). Perfectionism increases or intensifies the negative effects of stress that can lead to conflict. Perfectionism has relationship with maladaptive behaviors such as feelings of guilt, irrational beliefs, sense of neuroticism and a sense of shame, respect and prone to cardiovascular disease and anxiety.

**Conflict of interest**
The authors declare no conflict of interest.
REFERENCES


