

Depression and Uncertainty in Cardiac Patients

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Article information	Abstract
<p>Article history: Received: 7 Jan 2012 Accepted: 26 Jan 2012 Available online: 24 Oct 2012 ZJRMS 2012; 14(10): 103-106</p> <p>Keywords: Depression Uncertainty Cardiac patient</p> <p>*Corresponding author at: Department of Hematology, School of Medical Sciences, Tarbiat Modares University, Tehran, Iran. E-mail: jamal.sooreh@gmail.com</p>	<p>Background: The aim of this study was to comparison of depression and uncertainty in cardiac patient and normal persons.</p> <p>Materials and Methods: The present study has been done in a form of casual-comparative on 60 persons at the Bookan city hospital. In the present study, Beck Depression Inventory (1988), and Fristone Uncertainty Scale (1994) were employed to gather the required data. For data analysis, Manova, Pearson correlation coefficient and regression analysis methods by SPSS-19 was used.</p> <p>Results: Finding supported, the rate of depression and uncertainty were higher in coronary heart disease than normal persons. There is meaningful relationship between depression and uncertainty ($p=0.01$). The result of regression analysis showed that about 14% of depression variance was predicted by uncertainty.</p> <p>Conclusion: Results supported that depression and uncertainty are associated with CHD. These results for the use of psychological interventions focusing on depression and uncertainty in the prevention and treatment of Coronary Heart Disease can be important in treating cardiac patients.</p> <p>Copyright © 2012 Zahedan University of Medical Sciences. All rights reserved.</p>

Introduction

Diagnosis of heart disease more psychological disorders such as anxiety, depression and uncertainty about the future makes created. Heart patients shown that need support, information and social health diagnosis are over [1]. One of the most common psychiatric disorders depression that may affects about 17% of people in lifespan [2, 3].

Researchers have long been interested in the relationship between depression and heart disease are. There is relationship between depression and increased risk and comorbidity and mortality from cardiovascular disease. For example, the depression, the risk of death after acute myocardial infarction: a four-fold increase [4, 5]. Uncertainty as a stressor with depression and contradictory symptoms, exacerbations and symptoms of unclear. Future is related to disease symptoms, also, as has been identified as the source of mood disorders in heart patients [6].

Many studies examined have of perceived uncertainty in diseases like cancer, heart and chronic diseases [7, 8]. Miranda & Mennin study showed that depression and anxiety significantly are associated with high uncertainty (expected future negative events) [9]. Poole et al., in a study on the relationship between depression and acute coronary syndrome suggested that a causal relationship jointly is responsible for both section the increase in depressive symptoms and adverse consequences of heart disease [10]. Taylor's research showed that depression is a risk factor for heart disease that increases to comorbidity and mortality rate [11]. In this regard, this study seeks to answer the question there is a significant difference

Uncertainty whether the depression in cardiac patients and normal subjects?

Materials and Methods

The present study has been done in a form of casual-comparative. In the study all cardio-vascular patients population Bookan city that referred a Qulipoor Martyr Bookan city hospital from October to December 2010 were using available samples in 30 patients with heart disease-coronary from September to December 2010 the Gholipoor Martyr Bookan hospital who had been selected. The 30 individuals with non patients in terms of age and sex were matched with patients. The hospital staff, patients and students with choice and control groups study formed. For the study was the first to go Bookan Health Network, after initial coordination with the Health Network hospital visit Gholipoor Martyr Bookan hospital after identifying cardiac patients by specialist heart hospital, Beck Depression Inventory and intolerance of ambiguity or uncertainty scale were asked patients to complete. The furthermore, it was requested carefully and answer the questions to determine suit their situation possible, do not answer any questions without. During the execution of the test subjects did not to cooperate due to age and lack of willingness.

In this study, the Beck Depression Inventory (Version II) was used to assess depression. Beck Inventory, a widely used test for measuring the severity of depression which is based on clinical observations of depressed and non-depressed psychiatric patients have been prepared.

Attitudes and symptoms of depression is consistent with the 21 statements are presented severity of any description in any sequence of statements on a scale from 0 to 3 degrees to classify. Many studies on the reliability and validity of the Beck Depression has been which all of show the validity and reliability of these tests.

Beck et al. Cronbach's alpha coefficient for this test from 0.73 to 0.92 variables are reported. Rajabi et al. Cronbach's alpha coefficient and reliability of the test were respectively 0.87 and 0.84 are reported. Also, in this study the Cronbach's alpha for this questionnaire 0.88 is reported.

Uncertainty Scale Fristone is 27 statements is be related to the uncertainty and ambiguity unacceptable and often leads to frustration, stress and inability to perform work. The test of a Likert scale with five degrees of (never, rarely, sometimes, often and always) be answered any of items 1, 2, 3, 4 and 5 scores. French of the test internal consistency ($\alpha=0.91$) and test-retest reliability with an interval of four weeks, is a very good ($r =0.78$). Cronbach's alpha coefficient and test-retest reliability (after 5 weeks) this scale were respectively 0.94 and 0.74 is reported. This scale consists of four subscales that 4 factors of that assessment inability to do the, stressful being undecided, unexpected events and to avoid the negative, and uncertainty about the future. Also, in this study obtained the Cronbach's alpha for this scale 0.90. For data analysis, Manova, Pearson correlation, Regression model (Enter) was used. The data obtained were analyzed using SPSS-19 software.

Results

Age range 80-20 years, mean age of subjects was 41 years. In this study, Levene (levene test) analysis of variance was not significant. This test was not significant for any of the variables, parametric test result is prevented onfirmed.

Table 1 showing that the results of the test subject (groups) is the same as that observed between depression scores and uncertainty (total), inability to perform, stressful of uncertainty, and uncertainty about future, negative events unexpected there is differences between the two groups of cardiac patients and normal subjects ($p=0.001$).

Results of variance analysis showed that scores of depression and uncertainty (total) and elements of its suspense the inability to do, stressful of uncertainty, unexpected negative events and avoid, and uncertainty about future significantly were higher in heart-vascular diseases than normal individuals.

Can be observed that the correlation results suggest that between variables depression and uncertainty ($r =0.73$) there is positive correlation ($r =0.73, p=0.01$) (Table 2).

As the table 3 about prediction symptoms of depression by showing how much uncertainty can, there is a meaningful F ($F= 4.74, p= 0.03$) and 14% of the variance in symptoms of depression can be explained by the uncertainty ($R^2=0.14$). Uncertainty impact factors ($\beta=0.23$) with respect to the t -statistics showed that. This variable with 95% probability changes related to symptoms of depression to expected, the uncertainty increases with increased symptoms of depression consistent (Table 3).

Table 1. Results of the analysis of variance on depression scores, uncertainty (total), inability to perform, to be stressful, avoided, and uncertainty about the future (test of between subjects effects)

	Dependent variable	F Statistics	p-Value
Group	Depression	35.53	0.001
	Uncertainty (total)	38.30	0.001
	Inability to perform	27.84	0.001
	To be stressful	26.45	0.001
	Avoided	22.43	0.001
	Uncertainty about the future	18.94	0.001

Table 2. Correlation matrix between depression and uncertainty and its components

	Depression	Uncertainty (total)	Inability to perform	To be stressful	Avoided	Uncertainty about the future
Depression	1					
Uncertainty (total)	0.73**	1				
Inability to perform	0.67**	0.92**	1			
to be stressful	0.74**	0.89**	0.73**	1		
Avoided	0.45**	0.73**	0.59**	0.55**	1	
Uncertainty about the future	0.50**	0.81**	0.72**	0.64**	0.51**	1

** : $p < 0.01$

Table 3. Results of regression analysis for prediction of depression using uncertainty in the heart disease-coronary

Prediction variable	Model	df	SS	p-Value	F	MS		
Uncertainty	Regression	1	277.47	0.03	4.74	277.47		
	Residual	28	1635.99			58.42		
Variable		Standardized coefficients		Unstandardized coefficients				
Dependent	Independent	R ²	R	β	SE	p-Value	t	BETA
Depression	Uncertainty	0.14	0.38	0.23	7.64	0.03	2.17	0.38

Discussion

The aim of this study was to comparison of depression and uncertainty in cardiac patient and normal persons. Results of related to means correlation scores of depression and uncertainty (total) and elements of its showed that There is a significant difference between the mean scores of the two groups, that means uncertainty and its components, and depression had more in cardiovascular patients than normal group. The results of the research is consistent poole et al., Jange et al., Bounhour et al. [10-13].

This finding can be explained by mechanisms involved in the biological, behavioral, and social support and adherence etc. This means that depression is caused by an imbalance in the activity of the sympathetic and parasympathetic systems. Increased heart rate and blood pressure, and stimulates muscle ability of the heart to increase and causing disturbances in heart rhythm and heart will follow it. Also, people with heart disease are less healthy lifestyle choices that reduce cardiovascular risk and disease progression. Heart diseases, the uncertainty of when the cues (fatigue) will first appear or when not sufficient information about the symptoms and the disease control and they think that their symptoms may worsen, experience.

The findings from this study showed there is a positive relationship between depression and uncertainty. The findings of the research is line that Miranda and Mennin, Butzer and Kuiper [9, 14]. In explaining these findings, it can be said that the sign predict future depression and anxiety are associated with biases about before. As a result, people hold pessimistic views about the future expect negative events will happen in the future for will not occur positive events [14].

The results the uncertainty in cardiac patients showed that this variable with 95% probability that the changes in depressive symptoms pre to expected. These research

findings is consistent Miranda and Mennin, Shaver and Dougherty [9, 15]. In support of this research can be said to be Intolerance of uncertainty, depression symptoms simultaneously with certainty about expected future negative events might pre will. They expect the negative events in the future it will happen and positive events that will not be [15].

Cognitive content future events and confidence about lack of results of positive and expected outcomes of future negative events, appear makes symptoms of depression. Furthermore, examined is the relationship between confidence about positive outcomes in the future and depressive symptoms with the hope and indicate that treatment should be focused on the symptoms of depression and should be promising expectations in about the "future-perhaps" with low confidence about the future negative consequences will occur. In general we can say findings of this study are important not only scientifically, but also as a basis for applied research that can be useful.

The limitation of this study was that variable like to having a disease other is not controlled with heart disease. Because of is high uncertainty and depression in heart diseases, psychological interventions can be useful.

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Authors' Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

Conflict of Interest

The authors declare no conflict of interest.

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