**Journal of Novel Applied Sciences** 

Available online at www.jnasci.org ©2014 JNAS Journal-2014-3-3/283-286 ISSN 2322-5149 ©2014 JNAS



# Compare the Obsessive-compulsive disorders between coronary heart disease and healthy subjects

# Hamideh Pour Omidi Jirandeh<sup>1\*</sup>, Iraj Shakeri nia<sup>2</sup> and Bahman Akbari Kavabari<sup>3</sup>

1- Department of Psychology, Guilan Science and Research Branch, Islamic Azad University, Guilan, Iran

2- Assistant Professor, Guilan University, Guilan, Iran

3- Assistant Professor, Department of psychology, Rasht Branch, Islamic Azad University, Rasht, Iran

# Corresponding author: Hamideh Pour Omidi Jirandeh

**ABSTRACT:** The aim of present study was to investigate the compare the Obsessive-compulsive disorders (OCD) between coronary heart disease (CHD) and healthy subjects. This cross sectional descriptive analytic study was performed on 93 CHD attending the Heshmat heart center (Rasht, Iran) and another 99 healthy subject was selected to go to different region of Rasht city. Participants were selected by systematic random sampling. Data were recorded in SCL- 90-R and structured researcher questionnaires. The information derived from this questionnaire was first entered into an SPSS-15 software system and subsequently analyzed using independent T-test. P value <0.05 was considered significant. Our findings showed the higher score of OCD in CHD compare to healthy subjects and difference was significance.

Keywords: Obsessive-compulsive disorders, coronary heart disease.

# INTRODUCTION

Coronary heart disease is a common term for the build-up of plaque in the heart's arteries that could lead to heart attack (www.heart.org). However, coronary heart disease, or CHD, is actually a result of coronary artery disease, or CAD. With coronary artery disease, plaque first grows in the coronary arteries until the blood flow to the heart's muscle is limited (www.heart.org). This is also called ischemia. It may be chronic, caused by narrowing of the coronary artery and limitation of the blood supply to part of the muscle. Or it can be acute, resulting from a sudden plaque that ruptures (www.heart.org). The traditional risk factors for coronary artery disease are high LDL cholesterol, low HDL cholesterol, high blood pressure, family history, diabetes, smoking, being post-menopausal for women and being older than 45 for men, according to Fisher (www.heart.org). Obesity may also be a risk factor. Living a healthy lifestyle that incorporates good nutrition, weight management and getting plenty of physical activity can play a big role in avoiding CAD. Over time, CHD can weaken the heart muscle and lead to heart failure and arrhythmias (ah-RITH-me-ahs). Heart failure is a condition in which your heart can't pump enough blood to meet your body's needs. Arrhythmias are problems with the rate or rhythm of the heartbeat. Coronary heart disease (CHD) is one of the most important health issues in the twenty first century1 and also the most important cause of mortality in our community (Babaei Saatlou and Kazemi Khaledi, 2007; Braunwald, 2001). According to statistics, 2 million of Iranians are suffering from coronary heart disease. Research Committee of the Iranian Society of Cardiac Surgeons have announced that the age of exposure to cardiovascular disease in Iran is approximately 7 to 10 years less than other countries. In developed countries, people are exposed to this disease in the sixth decade of their lives. But people in Iran are exposed to this disease during their fifth decade of life. There are about 50 thousand heart surgeries performed annually in Iran which in China with one billion and 300 million population the same amount of heart surgeries are performed (Marzban, 2007). Given the importance of physical and mental health of the individual, family and community for the physical and mental health are closely related, this

relationship can determine a person's social relationships. Heart is the base and source of live, and is under distress and psychological pressures higher than other organs. In modern medicine, researches in behavioural sciences have described link between psychosocial characteristic, specific personality traits, and development of coronary artery disease. Although most of the studies on CHD are mainly focused on the biological risk factors and life style (Twisk, 2000), but some evidences have revealed that psychological and psychiatric factors have a very important role in the etiology, development, duration and the outcome of this disease (Aibus, 2010; Rozanski, 1999). The most important factors are depression (Radllof, 1977; Frasure-Smith, 1995; Huffman, 2008; Stafford, 2009), anxiety (Huffman, 2008; McLaughlin, 2005; Janszky, 2010; Khayyam Nekouei, 2011), and stress (ortman, 2007; Steptoe and Kivimäki, 2012). Increasing evidence suggests that psychological factors as the independent risk factors will have an important part in the physical chronic disease, particularly coronary heart disease (Rafia and Naumana, 2012). Depression is a risk factor for morbidity and mortality in patients with coronary heart disease, especially following acute coronary syndrome (Frasure-Smith, 1995; Huffman, 2008; Stafford, 2009). Although evidence suggestes that anxiety also has an adverse impact on prognosis in CHD patients 69 independent of depression, the role of anxiety as an etological risk factors is less clear (Alboni, 2008; Rothenbacher, 2007). A bout association between depression (Lesperance, 2000; Jiang, 2002 and etc.) and anxiety (zafar, 2010; JanuzziJ, 2000) with CHD previously discussed. However, role of OCD and its relationship with CHD is unknown. Everyone double checks things sometimes. For example, you might double check to make sure the stove or iron is turned off before leaving the house. But people with obsessive-compulsive disorder (OCD) feel the need to check things repeatedly, or have certain thoughts or perform routines and rituals over and over (National institute of mental health, 2014). One obsession, it's always better than the others, better and cleaner sees this caused resentment homeliness and be loved. Obsessive-compulsive disorder in which clusters of intellectual, mental, emotional and practical forms. OCD patients do not have the power to control and restrain their abusive behavior. The thoughts and rituals associated with OCD cause distress and get in the way of daily life. The frequent upsetting thoughts are called obsessions. To try to control them, a person will feel an overwhelming urge to repeat certain rituals or behaviors called compulsions. People with OCD can't control these obsessions and compulsions. Most of the time, the rituals end up controlling them (National institute of mental health, 2014). In fact, they are unable to effectively prevent the annoying intrusive thoughts (Cavang, 2001). This research topic due to high mortality due to CHD, can be identify negative psychological factors that may exacerbate the incidence of this deadly disease and develop the necessary preventive and educational skills.

# MATERIALS AND METHODS

This cross sectional descriptive analytic study was performed on 93 CHD attending the Heshmat heart center (Rasht, Iran) and another 99 healthy subject was selected to go to different region of Rasht city. Participants were selected by systematic random sampling. Data were recorded in SCL- 90-R and structured researcher questionnaires. The information derived from this questionnaire was first entered into an SPSS-15 software system and subsequently analyzed using independent T-test. P value <0.05 was considered significant.

#### Instrument

Data were recorded in SCL- 90-R and structured researcher questionnaires. The ninety items of SCL-90-R test assesses the nine aspects. We use Obsessive-compulsive disorders (OCD) aspect for this study. The response given for each item is in the form of a 5-point severity response scale reflecting, none, rarely, to some extent, mostly, and severe degrees with minimum and maximum scores being zero and four, respectively. Derogates in 1983 used internal validity and test-retest reliability to assess the 9 aspects of this test. The internal validity of the SCL-90-R test was satisfactory for nine aspects with the highest and lowest association being for depression (0.90) and psychoticism (0.77), respectively. Test retest reliability ranged between 0.78 and 0.90 (16). In our survey the questionnaires were completed by a psychologist via a semi-constructed interview. After initial assessment and interview with 10 patients, primary data were obtained and organized and its reliability was confirmed by experts.

# **RESULTS AND DISCUSSION**

#### Results

Results showed that mean of OCD in CHD patients is higher than healthy subjects (Table 1).

SD	0.31	0.29
Mean	18.7	16.18
Ν	93	99
OCD	CHD	Healthy subjects

Statistical analysis showed significance differences between CHD patients and healthy subjects in OCD at 95% confidence level (Table 2).

	df	t	sig
OCD	190	5.77	0.001

#### Discussion

In this study, the OCD between patients and control groups is statistically significant. Results showed that the OCD in coronary artery disease higher than healthy individuals. Too many people are grappling with this problem, not only themselves, but also clashes with his entourage have found. One obsession, it's always better than the others, better and cleaner sees this caused resentment homeliness and be loved. Obsessive-compulsive disorder in which clusters of intellectual, mental, emotional and practical forms. OCD patients do not have the power to control and restrain their abusive behavior. Their minds repeatedly suffered. This feature keeps people thinking about some issues. But there are unwanted compulsive thoughts. Compulsive disorder, intellectual, OCD patients are annoying. These people usually worried. All of the events that may occur in these patients does not abandon, never mind. Perfectionism, seeking ideal, dutiful and dissatisfaction with their other characteristics of these patients. They try to tackle all the things a good deal. When stress is prolonged stress and cardiovascular problems, he will rise significantly. Insufficient studies regarding CHD and OCD, lack of patient cooperation in filling out the questionnaires, not enough space in the waiting room of the limitations of this study is due to the high volume of patients. According to the results of the study variables on coronary heart disease in Guilan province, we suggestion that other researchers nationwide for more information on similar research we do object to the results can be generalized to a broader spectrum of the community.

#### REFERENCES

Aibus C. 2010. Psychological and social factors in coronary heart disease, Ann Med ,42(7),487-94.

- Alboni P, Favaron E, Paparella N, Sciammarella M and Pedaci M. 2008. Is there an association between depression and cardiovascular mortality or sudden death? J Cardiovasc Med (Hagerstown), 9(4):356-62.
- Andrew Steptoe and Mika Kivimäki. 2012. Stress and cardiovascular disease. Nature Reviews Cardiology, 9,360-370.
- Babaei Saatlou B and Kazemi Khaledi A. 2007. The prevalence of coronary artery disease and its risk factors in patients undergoing heart valve surgery. J Ardabil Univ Med Sci 7(3): 254-8. [In Persian].
- Bortman D, Golden sh and Witt stein. 2007. The cardiovascular toll of stress. Lancet , 370:1089-1100.
- Braunwald E, Zipes D and Libby P. 2001. Heart Disease. 6th Ed, W.B. Saunders Co, Vol(2). 7, 2007(3) 254-258.
- Cavangh MJ. 2001. Attention training and hypochondriacs;Preliminary results of a controlled trial. The proceeding of theworld congress of behavioral and cognitive therapy, Zurich .
- Davison GC and Neale JM. 2004. Abnormal psychology. 8th ed. New York: John Wiley and Sons.
- Frasure-Smith N, Lesperance F and Talajic M. 1995. Depression and 18-month prognosis after myocardial infarction .Circulation;91:999-1005.
- Grossarth-Maticek R and Eysenck HJ. 1990. Personality, stress and disease: Description and validation of a newinventory. Psychological Reports, 66, 355-373.
- Huffman JC, Smith FA, Blais MA, Januzzi JL and Fricchione GL. 2008. Anxiety, independent of depressive symptoms, is associated with in-hospital cardiac complications after acute myocardial infarction. J Psychosom Res. 65(6):557-63.
- Janszky I, Ahnve S, Landberg I and Hemmingsson T. 2010. Early onset Deppression, Anxiety, and risk of subsequent coronary heart Disease. Journal of American College Cardiology. Published by Elsevier Inc.
- JanuzziJ R, Stern TA ,Paternak RC and Desanctis RW. 2000. The influence of Anxiety and depression on outcomes of patients with Coronary artery disease. Archives of internal Medicine, 160:1913-1921.
- Jiang W, Krishnan RK and OConnor CM. 2002. Depression and heart disease: Evidence of a link and its therapeutic implications. CNS Drugs. 16(2). 111-127.
- Khayyam Nekouei Z, Yousely A, Manshaee G and Nikneshan Sh. 2011. Comparing anxiety in cardiac patients candidate for angiography with normal population . ARYA Atherosclerosis Journal , 7(3): 93-96,.
- Lesperance F, Frasure-smith N, Juneau M and Theroux P. 2000. Depresssion and 1 year prognosis in unstable angia. Arch intern Med, 160:1354-60.

Marzban M. 2007. Iranian Association of Cardiology.

McLaughlin TJ, Aupont O, Bambauer KZ, Stone P, Mullan MG, Colagiovanni J, Polishuk E, Johnstone M and Locke SE. 2005. Improving psychologic adjustment to chronic illness in cardiac patients. The role of depression and anxiety. J Gen Intern Med. 20(12):1084-90. Radllof LSA. 1977. self report depression scale for research in general population. Appl psychological Assess. 1:385-401.

- Rafia R and Naumana A. 2012. Psychosocial factors as predictors of early onset ischemicheart disease in a sample of Pakistani women. International Journal of Research Studies in Psychology, 1(2):17-27.
- Rothenbacher D, Hahmann H, Wüsten B, Koenig W and Brenner H. 2007. Symptoms of anxiety and depression in patients with stable coronary heart disease: prognostic value and consideration of pathogenetic links. Eur J Cardiovasc Prev Rehabi, 14(4):547-54.
- Rozanski A, Blumenthal JA and Kaplan J. 1999. Impact of psychological factors on the pathogenesis of cardiovascular disease and implications for therapy. Circulation, 99,2192-2217.
- Stafford L, Berk M and Jackson HJ. 2009. Are illness perceptions about coronary artery disease predictive of depression and quality of life outcomes? J Psychosom Res. Mar, 66(3):211-20. 17.
- Stamatakis KA, Lynch J, Everson SA, Raghunathan T, Salonen JT and Kaplan GA. 2004. Selfesteem and Mortality: Prospective Evidencefrom a Population-based Study. Ann Epidemiol,14: 58–65.
- Twisk WR, Vente W, Kemper CG and Mechelen W. 2000. Positive and negative life events. The relationship with coronary heart disease risk factors in young adults. Journal of Psychosomatic Research, 49:36-42.
- zafar MU, PazYepes M, Shimbo D, Vilahur G, Burg MM, Chaplin W, Faster V, Davidson KW and Badimom J. 2010. Anxiety is better predictorof platelet reactivity incoronary artery patients than depression. European heart journal.31,1573-1582.