

### Study Analysis of Coping Styles in the Coronary Diseases and myocardial infarction

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**Abstract:** The research studies differences between the coping style in the coronary patients and myocardial infarction diseases. Participants are Patients group includes 145 persons (77 patients with myocardial infarction and 68 of them cardiovascular disease and need to mention that most patients had coronary diseases). The data was obtained by dint of questionnaire "Coping Inventory of Stressful Situation" (CISS). The obtained data has shown significant differences between the coping styles of cardiovascular patients when they are confront to the stressful problems. The coronary patients diseases exploit Emotion-oriented coping style, The study showed none significant difference in the coronary patients, like myocardial infarction patients. But there is a significant difference in coping style than healthy people. Apparently it is underline that coronary diseases suffering from situational contingency. [Seyed Ali Doustdar Tousi, Mahintaj Gohargani, Ebrahim Nabavizadeh, Hamidreza Akbari kia, Askari Asghari Ganji, Nader Jafari. **Study Analysis of Coping Styles in the Coronary Diseases and myocardial infarction.** *Life Sci J* 2013;10(4s):250-254] (ISSN:1097-8135). <http://www.lifesciencesite.com>. 37

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#### Introduction

Technological development in the society is expanded, so we have observed the changes in all life levels including scientific, social, family and economic fields. Although the development and change have been resulted in the relative welfare of human being, it has been caused the difficulty of bio psychosocial adjustment. It is resulted in the negative consequences as decrease in the physical activities, psychological tension, stress, anxiety and vulnerability in the family and social interactions and relations. Although interwoven of mind and body is evident, the philosophy of this interwoven is controversial namely how they affect one another. Considering the psychological statues and characteristics and personality features and its relevance to the health and disease is a process which helps human being to improve the health and prevention and treatment. According to the researchers, the cardiovascular diseases are affected by psychological function. Moreover, the cardiovascular disease has been spread in a way that it has devoted the most statistic of mortality to itself in the world. Also, it will be the most cause of mortality up to 2020 and it contains all social classes, in particular, in the developing countries. The studies show that about %52 of mortality in America and %48

in Europe is because of cardiovascular disease (Williams, 2004). The heart disease has been recognized as a disease of the life style, the most important risk of which is the diet, physical activities, overweight, social and psychological stress and cigarette smoking all of which are the consequence of industrialization and modernization of societies.

Many individual and psychological factors have been recognized which are related to the heart disease since 30 years ago. A study shows that the psychological factors are the third cause of Mew myocardial Infarcts and the social psychological stresses are resulted in the heart disease. Up to now, many studies have supported the positive relationship between stress and coronary diseases. The researches show that the patients have experienced more stressful facts in the two years before their suffering from the disease (Siegerist et al., 1999). A research considered the status of the patients who have been saved from the first heart infarct for ten years and it showed that the group who had two heart infarcts, in comparison to the group without heart attack, has experienced the stressful events in their life one year before the heart attack. The finding based on the correlation studies show that the individuals, who experience the high

levels of stress, have more tendencies to the behaviors which increase the risk of disease and damage.

The research also shows that the stress levels and life pressure are in relation to the high blood pressure and abnormal increase in the heart bulk (Basharat et al., 2007). For example, there is an abundant amount of activated platelet and high LDL in the blood of people who suffer from stress. These changes, in the blood, help the closing vessels and outbreak of the disease. Besides, stress, by affecting the hormones activities peculiarly sprinkle-ling the Adrenal Gland, causes the disorder in the heartbeat, increase in the blood pressure, sediment of abnormal calcium and harmful cholesterol in the rim of coroner vessels. As independent danger factor affecting other factors (increase in blood pressure, calcium sediment), stress increase the possibility of outbreak coronary diseases and myocardial infarction.

Also, it is possible that stress causes disorder in the heartbeat, heart attack and sudden death (Sarason et al., 1995). These are the examples of the physical relation between the stress and heart and especially Psychic pressure causes a physical reaction in the heart and circulatory blood system and alimentary canal. Therefore, continuation of these symptoms has being increased possibility of physical disorder for a long time (Jang, 2007).

During his life, human being has perceived that some events can put his health, comfort, and adjustment in danger. Meanwhile, the evidences show that even the high-tension conditions are not always resulted in non-adjustment and disease of everybody (Basharat et al., 2007). Researchers believe that the regulator factors are affective in the relationship between the stress and disease. Some people have the features which increase their inner resistance against the stress and restrain the stress consequences and disease. Moreover, human does not accept stress and its consequences without question but it has considered different alternative and resolutions adjust to it and regain his balance, prevention and eradication of stress.

One of the most important factors is the coping style and the reaction which people show in confrontation to the stressful conditions (Dracup et al., 2004). Therefore, the notion of coping, which helps us in comprehension of adjustment and repugnance, is more important than the stress and the life style. Because it is not the stress that causes disorder in the individual yield and sense of pressure on the person but the way of confrontation and coping with the stress and controlling it are determinants. So, coping is regarded as permanent change in the behavioral and cognitive struggles to satisfy the peculiar internal and external needs in which the pressure or excess in the person resource are evaluated. Therefore, coping with

stress is a process and struggle for performing a situation in which the person is located (Lazarus, 1996) There are agreements in the literature of psychological pressure and coping in which we can distinguish the coping style of Task oriented, Avoidance oriented, Emotion oriented.

1. Task oriented coping: it consists of the purposeful operation for problem solving, mental re-organization of the problem and struggle for changing the situation by emphasizing the problem, programming and problem solving. The style reduces the psychological and physiological effects of problems and daily stressful factors.

2. Intensive coping over the emotion: the style contains the self-oriented emotional reaction and it aims to reduce the stress. Although it is not always successful, it contains the reactions including emotional reactions as recognizing themselves as guilty because of emotion, nervousness, self interesting and confrontation. In some cases, the stress is increased and reaction is oriented toward the person. Avoiding and denial are the prevailing guidelines of intensive coping over emotion. Avoiding refers to the physical receding from the stressful situation and denial contains the mental escape from the stressful situation.

3. Avoiding: this coping style is described as the activities and cognitive changes which are resulted in the stressful situation. This style, through the entertainment (self-forgetfulness) to a situation or too responsible or returning to the community individualist, individual oriented as an instrument to relief the stress is performed (Lazarus, 1996). The coping guideline, which is a way by which everybody cope with the stress in each stage of his/her life, are in a peculiar importance in the psychological adjustment (correspondences) in the heart patient and influences the reaction of the individual toward the disease.

A person who has the adjustment coping guideline he/she will show the better physical and psychological answers during the disease and he/she has more calmness. While the individual applies the irreconcilable guidelines and does not adjust itself to the disease, he/she will show a better and more intensive psychological and physical reaction to the disease and his/her life will meet an inadequate situation (Dracup et al., 2004). Evidently, the applied guidelines by the individual not only affect his/her psychological welfare but his physical welfare. The clinical specialists emphasize the adequate coping skills more than the reduction of negative feeling and they believe that the patients who apply the active and adjust coping guidelines have less anxiety, boredom, and depression (Dracup et al., 2004).

The patients who apply the style of problem solving, their social and psychological

adjustment is better than the patients who apply the Emotion oriented style. Patients with heart problems dominantly apply the coping guidelines of Emotion oriented (Klcksin & Nyamathi, 1990).therefore, non-intensive guidelines on solving the problem and Emotion oriented, instead of decrease in the stress, are resulted in increases in the distress and intensity of heart reactions, consequently, increase in the risk of coronary disease ( Vingerhoets et al.,1996).The results of another results show that the patients who apply the coping style of problem solving have a better social and psychological adjustment in comparison to the patients who apply the coping style of Emotion oriented. ( Klcksin & Nyamathi,1990).

The results of the research in this area show that individuals who apply an effective coping guideline will experience the turbulent behavior less than others; therefore, they will meet less depression (Bulger & Zuckerman,1995).this investigation show relation between the coping style and out break coronary disease and also they found difference between coronary disease with health patients and normal participants, aspect of the emotional coping styles oriented and task oriented . The research tries to answer the following questions: In application of coping styles, is there a significant difference between coronary disease and myocardial infarction. Is there a significant difference between coronary disease patients and healthy people in application of coping style.

### Material and methods

The research is cross sectional method. The statistic samples of the research were 145 persons in clouding, 68 cardiovascular disease that most patients had coronary and 77 myocardial infarction group .The scale for selection of the patients has been based on Angiography test, diagnostic interview and memoir of patient as well as the specialist physicians. In the research has been used the Coping Inventory for Stressful Situation (CISS) developed by Endler and Parker (1990). Coping Inventory for Stressful Situation is used to measure the ways of coping which was designed for considering the various ways of coping in stressful situations in 1990 by Endler and Parker.The inventory has 48 items which consist three main fields of Task oriented, Avoidance oriented, and emotion oriented coping behavior. With regard to the point that, the test has been designed in the form of Likret Five degrees, therefore, maximum score is 5 for each category and minimum score is 1 for each category. Test should answers to all questions. If the test has not answered to 5 questions or less than five questions, the researcher can mark the case of 3 for such questions (otherwise the inventory is not scored ,that is, if unanswered questions are more than 5)

Variance scope of score for the three coping behaviors is in a way that the score of each coping guideline (Task oriented, Emotion oriented, Avoidance oriented) is between 16 to 80. In other words, the dominant coping guideline is determined through the achieved score in the test by the person, that is, the behavior which gets a high score in the scale will be taken in to account as the main coping guideline of the person.( Dracup et al.,2004; Endler , Parker,19990).

### Results and Discussion

The table data shows in the coping styles of task oriented were more than those of infarction and coronary diseases patients. Moreover, the mark mean of infarction patients in the coping style of Emotion oriented was more than those of health people. Also, the mark mean of coronary diseases in the coping style of emotion oriented was more than those of health people. Therefore, we can conclude that both groups of heart patients dominantly apply the coping guidelines of emotion and avoiding oriented .The results of variance analysis test to compare a group of health people, two groups of patients of infarction and coronary patients based on the coping styles.

Comparison test of different coping styles in various groups (Analysis of Variance)

Table 1 Comparison test of different coping styles in various groups (Analysis of Variance)

groups	N	Mean	F	Sig
healthy	85	1.2	86.84	.000
cornory	23	2.3		
With Miocardial Infarction	75	2.4		
Total	183	1.79		

In this table, different styles of coping in three groups of healthy, coronary and patients with myocardial infarction were compared with each other. This table shows the results of the different groups present in the study sample, there were significant differences in terms of coping. Groups of cardiac patients with infarction had a higher average than the healthy subjects. In conclusion we can say that among different groups of coping styles, significant difference have been observed.

In this table distribution of respondents is presented based on coping style. Above results suggest that 87.1% of helthy use task-oriented coping style. while, only 8% of heart attack patients do in this way and 69.6% of coronary patients use emotion oriented coping style and 30.4% of them use avoid style. 32.8% of patients with infarction use emotion style and 40% of them use avoid style.the results of correlation test show that there is a significant relation between health status of participants and coping styls.

Table 2 Cross table of respondents distributed groups, based on coping style

		COPING STYLE			Total	
		TASK	EMOTION	AVOID		
diagnosis2	Healthy	Count	74	5	6	85
		% within diagnosis2	87.1%	5.9%	7.1%	100.0%
	Cornory	Count	0	16	7	23
		% within diagnosis2	.0%	69.6%	30.4%	100.0%
	With Miocardial Infarction	Count	6	39	30	75
		% within diagnosis2	8.0%	52.0%	40.0%	100.0%
Total		Count	80	60	43	183
		% within diagnosis2	43.7%	32.8%	23.5%	100.0%
			Value	Approx. Sig.		
Nominal by Nominal	Phi			.824	.000	
	Cramer's V			.582	.000	
N of Valid Cases				183		

The present consideration tried to regard the relation between the coping styles with outbreak of cardiovascular disease as well as the difference between the coronary patients and healthy persons based on the coping styles of emotion oriented and task oriented. In other side, it tries to consider the difference between coping styles of infarction and coronary patients. In table 1 are presented the average values and standard deviations of coping style findings for the investigated contingent obtained by questionnaire "Coping Inventory of Stressful Situation". As may be inferred from the table's data, most appreciations for healthy patients has been defined for scale "task-oriented coping style" whereas for patients with cardiovascular diseases the highest values are observed for "emotional and avoiding styles" of behavior. On the basis of this data the quantity of individuals by various type of coping style in the examined groups has been defined. This data are represented in the diagram of fig.1. As is clear from the diagram in the healthy persons more often is observed the most effective, "task oriented coping style" (87.1% of examined) whereas in the cardiovascular patients this type of coping occurs only 0% - 8% of cases. In the last group the emotional and avoiding styles together compose 100% and 92%, correspondingly.

Table coping styles in myocardial infarction, coronary diseases and healthy persons The data in the above table shows the coping styles and its sub-scales among the three groups of myocardial infarction, coronary diseases and healthy persons. The finding showed that the myocardial infarction, coronary diseases, use inefficient coping styles of

Exciting-Oriented and Avoidance oriented and in exploitation of the efficient coping style of task oriented, There is a significant difference in comparison with the healthy persons.

This issue causes psychic pressure; consequently, diverse physical reactions in the heart, circulatory blood system and coronary diseases. By considerations. (Vingerhoets et al. 1996; Dracup et al., 2004; Kleksin, Nyamathi, 1990). Of those research. General, individuals, who have weak and inefficient sources coping, will be more target of disease. Also, the coronary diseases patients use the exciting-orient behavior as avoidance or escape from the sources in the stressor situation in order to reduce the stress or they use the inefficient styles as smoking, alcohol and trafficking drugs for a long term; therefore, they prevent their psychological adjustment and increase their disability. Such styles prevent the patients directly and effective their confrontation to the problem and decrease their ability to solve the problem.

The studies and researches show that the coping style and the person's reaction in confrontation to the stressful factors are more important than the stress itself and its intensity in the process of the outbreak of cardiovascular disease. Therefore, we can conclude that, the coping style of emotion oriented is a harmful and threatening factor of cardiovascular health. As a result, the non-intensive guidelines on problem solving and emotion oriented will cause the heart coroner.

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