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Studying the Interrelations Between Resiliency, Coping Style and Patients with Cardiovascular Diseases

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Abstract: The research seeks to study the differences between the coping style in the non- myocardial infarction and myocardial infarction diseases. Patients included 145 persons aging from 21 to 61 (77 patients with myocardial infarction and 68 of them cardiovascular disease and it should be mentioned that most patients had coronary diseases). The data was obtained by dint of questionnaire "Coping Inventory of Stressful Situation (CISS) 1990". The obtained data has shown that there existed significant differences between the copings styles of cardiovascular patients when they are confronted with the stressful problems. The non-myocardial infarction diseases exploit Emotion-oriented coping style. The study showed that there is not a significant difference in the non-myocardial infarction patients, like cardiovascular patients. But there is a significant difference in coping style in comparison with healthy people.

Key words: Interrelations • Resiliency • Coping Style • Patients • Cardiovascular Diseases

INTRODUCTION

Development in our contemporary societies as the consequence of technological improvement has caused transformation in all life levels including: scientific, social, cultural, family and economic fields. Although such changes and developments have been resulted in the relative welfare and facility for human, it has caused difficulty of adaptation in the Bio-psycho social situation which was followed by its negative consequence, that is, a reduction in physical activity, psychic tension, stress and anxiety in the family and between individuals' relations. Even though, interconnection between mind and body, nowadays, is unquestionably evident, the philosophy of this interwoven relation has been a problem yet, i.e. how they affect one another. Considering the psychological state and features and personality characteristics and its relation to the health and illness, it is considered as a process which can help human being in prevention and treatment of the disease. There is a worldwide concern about the increase in the level of deaths due to coronary heart disease, cardiovascular disease, or diseases of the circulatory system including all diseases of the heart and blood vessels. Cardiovascular

disease was identified as one of the National Health Priority Areas (NHPA) in 1996 in recognition of the severe impact it has on the health and well-being of the population through high levels of mortality and morbidity. Cardiovascular disease encompasses a number of diagnoses, including coronary heart disease, hypertension and stroke, the three most common conditions. Hypertension refers to chronic "high" in nonmyocardial infarction and is related to coronary heart disease and stroke in that it increases the risk of both. [1] According to the World Health Organization (WHO) [1] there are several kinds of cardiovascular diseases such as "high" in non-myocardial infarction (i.e., hypertension), arteriosclerosis, congenital heart defects, coronary artery disease, stroke, rheumatic heart disease and peripheral vascular disease [2]. Disorder in the yield ability (pregnancy) and limitation in the job, family, social life duties and responsibilities as well as social isolation and disappointment are the main consequences of such diseases.[3].

Detection of symptoms of anxiety and depression in CVD patients is of utmost importance because they affect diverse systems, such as increasing the activity of the sympathetic nervous system and the level of stress-

Corresponding Author: Seyed Ali Doustdar Tousi, Farhangian University, Sari Branch, Iran. Tel: +09111543267. related hormones, which can affect the cardiovascular system, thereby worsening the prognosis of the illness (Gallo et al., 2004[4]); (Rozanski and Kubzansky, 2005, [5]). In fact, it was found that even minimal depressive symptoms increase the risk of mortality after a myocardial infarction (Bush et al., 2001)[6] and that depression doubles the risk of a new cardiac episode after undergoing coronary artery bypass surgery (Blumenthal et al., 2003)[7]. It was also found that patients with high anxiety are five times more likely to experience complications or even death after a myocardial infarction (Moser and Dracup, 1996) [8]. The non-myocardial infarction consists of physiologic psychic disorders in which both environmental and physical risk factors in terms of psychology as well as the factors including individual's judgment about incidents of life, coping with it, play an important role in it. Psychic pressure causes a physical reaction in the heart and circulatory blood system as well as alimentary canal. Therefore, continuation of the symptoms for a long time increases possibility of physical disorder (Jang, 2007)[9]. The research tries to answer the following questions:

Is there a significant difference between nonmyocardial infarction and cardiovascular patients in applying the coping styles and resilience?

Is there a significant difference between nonmyocardial infarction patients and healthy people in applying the coping styles and resilience?

Are there any relationship between coping styles and resilience among participants of both groups?

MATERIAL AND METHODS

The research adopted a cross sectional approach. The statistic samples of the research were 145 persons aging from 21 to 61 including 68 cardiovascular patients who had coronary problems 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. The research has used the Coping Inventory for Stressful Situation (CISS) developed by Endler and Parker (1990)[10]. Coping Inventory for Stressful Situation is used to measure the coping ways which was designed for considering the various ways of coping in stressful situations in 1990 by Endler and Parker. The inventory has 48 items consisting of 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 Likert Five scales, therefore, the maximum score is 5 for each category and minimum score is 1 for each category. Participants should answer all questions. If the test is not answered in 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,1990).[11,10]

The measuring instrument in the present research is Connor Davidson Resilience (CD-RISC. 2003) which was performed by reviewing research resources of 1979-1991 on resilience area. Consideration of the Psychometric characteristics of this scale has been performed in six groups of general population, patients of primary care, urgency patients of psychiatry, patient with the problem of pervasive anxiety disorder and two groups of the patients of stricken to the stress disorder after accident. The founders of this scale believe that the inventory is able to separately recognize the resilient people from nonresilient ones in clinical and non-clinical groups; moreover, it can be used in clinical research situations (Mohammadi, 2008)[12]. Connor-Davidson inventory has 25 marker which is scored in a Likert scale between zero (absolutely False) and four (always true).

Examination of resilience distribution based on coping styles

Considering the results of this table, 94.4% of people, with resilience count of 67 and higher, have used task coping style whereas, 27.3 of people with 34 to 66 resilience count and 5.9% of people with 33 and fewer resilience counts are in this situation. On the other hand, 45.3% of people with 34 to 66 resilience and 29.4% of people with 33 resilience count and fewer have used emotion coping style. 64.7% of people with resilience count under 33 avoid coping style with 33 to 64 resilience count. The results of relation examination show that there is a significant relation between two variables (P < 0.05). The Above results indicate that, people with 67 and higher resilience count, in general, usually have task coping style while people with 34 to 66 resilience count have used emotion coping style and people who have resilience count lower than 33, have more avoiding style. It means, if people resilience count increase, their coping style will change from avoiding style to task style. In other words; if resilience count of people is higher, they use more task coping style.

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Diagram 1: Distribution of coping style groups, based on resilience

Table 1: Crossing table of resilience and coping styles

		Coping Style			
resilience Groups		 Task	Emotion	Avoid	Total
score 67 and more	Number	51	2	1	54
	% within	94.4	3.7	1.9	100
score 34-66	Number	44	73	44	161
	% within	27.3	45.3	27.3	100
score up to 33	Number	1	5	11	17
	% within	5.9	29.4	64.7	100
Total	Number	96	80	56	232
	% within	41.4	34.5	24.1	100
Pearson Chi-Square	Value	Df	. p. (2-sided)		
	93.45	4	0.000		

DISCUSSION AND CONCLUSION

Generally, this research examined variables of coping styles and resilience in cardiovascular patients. Findings show that variable in coping styles facing the stress; healthy people have used efficient problem style. But cardiac patients without MI and patients with MI have used emotion -coping style. According to these results, there is a significant difference between testable groups. Another finding of this research shows that cardiac patients with MI have lower resilience level.

The tables shows the coping styles in myocardial infarction, patients with blood pressure and healthy persons. The data in the above table shows the coping styles and its sub-scales among the three groups of myocardial infarction, blood pressure and healthy persons. The finding showed that the myocardial infarction, coronary diseases, use the inefficient coping styles of Exciting-Oriented and Avoidance oriented and used the efficient coping style of task oriented. They have a significant difference in comparison with the healthy people. This issue causes psychic pressure;

consequently, diverse physical reactions in the heart, circulatory blood system and blood pressure. By considerations of Kelark (2003)[13] we can see that the result is in line with those of the research. In general, individuals who have the weak and inefficient sources of coping styles will be more the target of disease. Also, the blood pressure patients possibly 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 using the narcotic drugs for a long term; therefore, they prevent their psychological adjustment and increase their disability. Such styles prevent the patients directly and effectively from confronting the problem and decrease their ability to solve the problem.

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