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Relationship between Attributional Styles and General Health in patients after Coronary Artery Bypass Graft surgery

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ABSTRACT

Background and Objective: The purpose of the present research was to investigate the relationship between attributional styles and general health in patients after coronary artery bypass graft surgery.
Materials and Methods: Method study was correlation and Ex post facto research. Statistical community was all patients after coronary artery bypass graft surgery that had bedridden at Emam Khomeini hospital in Tehran. sample group was included 100] 50 man, 50 woman] patient that were selected by disposal sampling method. Assessment instruments was attributional Styles Questionnaire [ASQ] and General Health Questionnaire] GHQ [.Data was analyzed by using Pearson correlation coefficient, regression and multivariate analysis of variance [MANOVA]. Results: Findings have shown that there is a meaningful negative correlation between depression and internal negative attributional style. Regression analysis showed that internal negative attributional style could explain 0/056 of variance depression in patients after coronary artery bypass graft surgery. Multivariate analysis of variance for comparison man and woman patients in attributional styles and general health showed that no significant difference in attributional styles and general health.
Conclusion: This information can be used in order to develop and implement educational and therapeutic programs designed to improve mental health and attributional styles of patients after coronary artery bypass graft surgery.

Key words: Attribution Styles, General Health, patients after Coronary Artery Bypass Graft surgery.

Introduction

According to the World Health Organization, cardiovascular disease is the leading cause of death worldwide, with 82% of these deaths occurring in developing countries [1]. It is stated that by 2020, cardiovascular disease the main factor will be worldwide [2]. In developed countries, 50% of deaths per year, or 5 million out of 12 million deaths, are due to cardiovascular disease. In Iran, mortality due to cardiovascular diseases has increased from 27% to 37% between 1989 and 2006 [3]. In case of non-response to drug treatment, percutaneous coronary angioplasty and coronary artery bypass grafting are the most effective treatment methods for these patients. Coronary artery bypass grafting has been used since 1974 and percutaneous coronary angioplasty has been used since 1981 to treat coronary artery disease [4]. 60% of coronary artery diseases use coronary artery bypass grafting [5]. In addition to its important role in relieving patients' pain, this method increases survival [6]. And improves the quality of life. In recent decades, to determine the effectiveness of interventions in the treatment of coronary artery disease, the general health status of these patients after treatment has been studied [7].

So far, several definitions of health have been offered, including: comfort and well-being, absence of illness, having emotional balance, social adjustment, feeling and knowing oneself and the environment. Also, according to the definition of the World Health Organization, health is the state of complete physical, mental and social health, not only the absence of disease or disability; in other words, health is not limited to the physical aspect, but also includes the psychological and social dimensions of life Take [1].

Increasing the prevalence of heart disease is associated with physical, mental, social and economic complications and problems for people with it, which can have negative effects on the quality of life of patients. The most important psychological problems that these patients face are anxiety and depression, anger, hostility and lack of social support. About 50% of patients with coronary heart disease report symptoms of anxiety [8]. Depression has also been reported in 20 to 45% of these patients [9]. One of the inhibitors of treatment

Are considered heart patients; This is because depression after a heart attack often goes undiagnosed, leading to rejection of the disease and reducing the patient's motivation to continue treatment [10].

Anxiety and depression following a heart attack can exacerbate and prolong the disease, interfere with treatment, and ultimately delay recurrence and hospitalization [11].

The general health of heart patients after surgery can be affected by interpersonal and individual factors. One of those intrapersonal factors affecting public health is attribution styles. Documents refer to individuals 'efforts to understand the causes of others' behavior as well as their own. Documentation is also the process that individuals use to link events [behaviors] to their underlying factors. ”12 Document styles are a cognitive variable that reflects how individuals habitually handle events. Explain what happens in their lives, in other words, the style of documentation is the way in which people explain their positive and negative consequences or their successes and failures. [13] Social psychology has shown that the style of documentation of individuals has a serious effect on success and failure, as well as on their motivations and social behaviors. Research also shows the impact of internal or external styles of documents on people's performance. Documentation style plays an important role in many areas of daily life such as depression and physical health [14].

People's perceptions, thoughts and expectations can be effective in predicting health behaviors. Seligman is one of the pioneers in the application of attribution style in mental health, which raises two categories in the relationship between attributive style and depression: 1- Pessimistic attributive style: That is, attributing negative events to internal factors, which leads to depression. 2. Optimistic attribution style: which is attributing positive events to internal factors; This style of attribution is the basis of happiness [15]. The significant relationship between attribution styles and general health has been studied in some studies. For example, in a study, the relationship between attribution styles and happiness and mental health was examined among 120 subjects. The results showed that attribution styles predict the mental health of individuals so that they can explain 20 to 30% of the variance of mental health [16]. In another study to investigate the relationship between attribution styles and general health, the number 120 subjects were studied and it was found that document styles predict changes in general health [17]. In addition, the relationship between depression in terms of public health and document styles has been confirmed in several studies [18, 19, and 20].

Over the past two decades, interest in assessing and improving the general health of heart patients, including physical, psychological, and social status, has increased dramatically and become a goal [21] .The most common cause of death And disability in various societies, including Iran, is a cardiovascular disease [22,23]. Cardiovascular diseases are an epidemic and in terms of mortality, indicators related to the spread of disability and economic costs have been proposed as the most important disease and cause of death by 2020 [1]. According to the World Health Organization in Iran, chronic diseases are the cause of 70% of deaths and coronary artery disease with 21%, is the number one cause of death in Iran. It is considered [24]. Therefore, it seems necessary to address the health status and factors affecting general health among heart patients after heart surgery. Accordingly, the questions of the present study are: 1. What is the relationship between the components between attribution styles and general health of patients after coronary artery bypass graft surgery? 2- To what extent do the components of document styles explain the components of general health of patients after coronary artery bypass graft surgery? 3- Is there a significant difference between the styles of documents and general health of male and female patients?

Discussion

The results of general health status of patients after coronary artery bypass graft surgery showed that the general health score of patients was 35.75. Findings from Pearson correlation coefficient for the first question of the present study showed that only a negative and significant correlation between negative internal attribution style and depression in terms of general health, while there is no correlation between other variables in the study. This finding means that a negative style of explaining events will be associated with depression. This finding is consistent with the results of previous related studies [18, 19, and 20].

Findings from the regression coefficient for the second question of the present study showed that the style of negative internal documents is the best predictor of depression in patients after coronary artery bypass graft surgery. And this variable explains 0.056% of the variance related to depression. This finding means that no matter how negatively people describe events, they will experience depression. This finding is consistent with the results of previous relevant studies [18, 19, and 20]. Explaining the findings of the first and second questions of the present study, it can be said that according to Beck's theory, depressed people have a very pessimistic view of themselves, the world and the future, have negative attitudes and beliefs that are activated by negative life events. In addition, have cognitive biases. Negative correlations, along with cognitive biases or distortions, maintain what he called the triple negative, which ultimately leads to depression. According to this theory, depression arises from the experience of uncontrollability. When a person is confronted with a meaningful event in life, he interprets and finds the cause, and internal, general, and stable causal explanations for negative events are based on the depressive attribution style [29].

The results of multivariate analysis of variance to examine the third question of the present study and compare the means of male and female patients in general health variables and attribution styles showed that there was a

significant difference between male and female patients in none of the dimensions of general health and attribution styles. Does not have. Perhaps this result can be attributed to the similar conditions of male and female patients.

Materials and Methods

This research is post-event and correlation in terms of applied purpose and data collection method. All male and female patients admitted to the cardiac surgery ward of Imam Khomeini Hospital in Tehran in 2009 who underwent coronary artery bypass graft surgery constitute the statistical population of this study. The sample of the present study included 100 patients [50 men and 50 women] who were selected by convenience sampling method. It should be noted that before completing the scales by the subjects, explanations on the purpose of the research and the method of completing the scales used by researchers were provided to the subjects. Pearson correlation coefficient, regression and multivariate analysis of variance [MANOVA] were used to analyze the data. A document style and general health questionnaire was used to collect data. The Attribution Styles Questionnaire is a self-report tool first developed by Patterson to measure people's explanations and attributions for uncontrollable events [pleasant and unpleasant]. This questionnaire describes 12 hypothetical situations. Out of 12 hypothetical positions, six positions are in the field of linking and six positions are in the field of progress. Thus, the questionnaire consists of four sub-scales including: a] Progress situations with a pleasant outcome; B] Progress situations with unpleasant consequences; C] Linking situations with pleasant consequences and d] Linking situations with unpleasant consequences. For each situation, there are three questions based on the main cause of that situation, and in each question, the subject ranks the cause of the event along a 7-point scale. Each question represents one of the three dimensions of "internal-external", "stable-unstable" and "general-specific". Therefore, the score of each question in each dimension can fluctuate between 1 and 7 [25]. Cronbach's alpha coefficient of the attribution style questionnaire has been reported to be 0.71 [26]. In the present study, Cronbach's alpha coefficient for the whole questionnaire was 0.74.

The general health questionnaire was developed to assess the mental health of individuals and was prepared in the form of 28, 30, 60 and 12 questions. In the present study, a 28-item form was used. This questionnaire has 4 subscales of physical symptoms, anxiety, social dysfunction and depression. In addition to the mentioned components, this questionnaire has a general index that is obtained from four components [27]. The validity of this test using parallel forms also shows that there is a correlation between this test and other tests that measure the same structure. The correlation between the data obtained from the implementation of this questionnaire and the SCL-90 questionnaire, which was administered to 224 subjects, was 0.87. Cronbach's alpha coefficient for the whole questionnaire was 0.91 and for the subscales of physical symptoms, anxiety, social dysfunction and depression were reported to be 0.80, 0.83, 0.66, and 0.85, respectively [28].

In the present study, Cronbach's alpha coefficient for the whole questionnaire was 0.62.

Findings

The mean age of patients after coronary artery bypass graft surgery was 59.17 years and the age range was 41-84 years. 56% of patients were married and 44% were single. In addition, 40% of patients were illiterate, 35% had primary education, 12% had a cycle, and 12% had a diploma. The results of general health status of patients after coronary artery bypass graft surgery showed that the general health score of patients was 35.75. In the following, is reviewed each of the research questions.

Research question 1: What is the relationship between components between attribution styles and general health of patients after coronary artery bypass graft surgery?

Table 1. Correlation coefficients between document style components and public health dimensions

Variable	Public Health Components				
	Physical Health	Anxiety	Depression	Social Dysfunction	Total Health
Negative Internal	-0/082	-0/047	-0/236	-0/034	-0/134
Positive Internal	0/076	0/051	0/095	0/034	0/085
Negative Stability	-0/028	-0/016	-0/125	-0/131	-0/101
Positive Stability	0/021	0/064	0/019	0/131	0/081
Overall Negative	0/013	0/086	0/067	0/069	0/083
Overall Positive	0/156	-0/120	0/052	-0/107	-0/020
Pessimistic	-0/052	0/014	-0/160	-0/054	-0/083
Optimistic	0/136	-0/010	0/087	0/021	0/075

N=100. * P *< 05/0*. ** P <01/0.

The results of the correlation test between the components of attribution styles and general health dimensions are shown in Table 1. According to the data in this table, there is only a negative and significant correlation [depression <P <0.05] between depression from the dimensions of general health and the style of internal documents, while there is no correlation between other research variables. The second research question: To

what extent do the components of document styles explain the components of general health of patients after coronary artery bypass graft surgery?

Table 2. Summary of Negative Internal Document Style Regression Model on Depression

Variable	F	P	R	R2	B	SE	B	t	P
Negative internal document style	5/78	0/018	0/236	0/056	-0/923	0/384	0/236	-2/40	0/018

The results of Table 2 show that the best predictor of depression in patients after coronary artery bypass graft surgery is negative internal attribution style. Based on these results, the observed F is significant [P <0.001] and 0.056% of the variance related to depression is explained by the style of negative internal documents. The regression coefficients of the negative internal document style variable indicate that this variable [$\beta = 0.236$, $t = 2.40$] can significantly explain the variance of depression in patients after coronary artery bypass graft surgery. Question 3 of the present study: Is there a significant difference between document styles and general health of male and female patients?

Table 3. Results of multivariate analysis of variance [MANOVA] of male and female patients in terms of general health variables and attribution styles

Indicator Variable		SS	d.f	[MS]	F	P
Public Health	Physical health	51/79	2	25/89	2/23	0/113
	Anxiety	26/02	2	13/01	0/596	0/553
	Depression	42/19	2	21/09	1/20	0/305
	Social dysfunction	73/12	2	36/56	2/18	0/118
	Total health	379/89	2	189/94	1/027	0/283
Documents Methods	Negative internal	1/23	2	0/619	0/532	0/589
	positive Internal	1/69	2	0/848	0/675	0/512
	Negative stability	3/50	2	1/75	1/40	0/251
	Positive stability	0/048	2	0/024	0/022	0/979
	Overall negative	2/10	2	1/05	0/85	0/428
	Overall positive	2/78	2	1/39	0/962	0/386
	Pessimistic	0/070	2	0/035	0/009	0/991
	Optimistic	7/46	2	3/73	0/799	0/453

Data on multivariate analysis of variance to compare the means of male and female patients in general health variables and attribution styles are shown in Table 3. The obtained results show that there is no significant difference between the two groups in any of the dimensions of general health and attribution styles [P <0.05].

Conclusion

In general, the results of the present study indicate the role of negative and internal document styles in predicting depression in patients after coronary artery bypass graft surgery. Based on the findings, we can point to two categories of practical and theoretical consequences in the present study. On a practical level, it is possible to set up training workshops for men and women who have experienced coronary artery bypass graft surgery, while clarifying the relationship between document styles and general health, in order to eliminate the disorders in these two structures. He did. In addition, by educating these patients, their optimistic, positive and internal styles can be increased and their pessimistic, negative and external styles of documents can be reduced, thus increasing and improving the general health of patients after vascular bypass surgery. Provided the heart coronary artery. At the theoretical level, although attention has been paid to the relationship between attribution styles and general health in different samples so far, the relationship between these two variables has been between women and men who have undergone coronary artery bypass graft surgery. Have not received much attention from researchers; For this reason, conducting this research can draw researchers' attention to these variables. The present study only investigated the role of attribution styles in predicting general health in patients after coronary artery bypass graft surgery, so the results are important only to identify the role of attribution styles in predicting general health. Research on other variables that affect the general health of patients after coronary artery bypass graft surgery is quite useful and instructive. It is also recommended to conduct more comprehensive research on broader samples to make a more accurate judgment of the relationship between attribution styles and general health in patients after coronary artery bypass graft surgery, as well as to generalize the results.

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