Research Paper

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Stress and Family Environment among Cardiac Patients

Social Science

KEYWORDS : Arthrosclerosis, plaque, Angina

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ABSTRACT

Coronary heart disease develops when your coronary arteries-the major blood vessels that supply your heart with blood, oxygen and nutrients-become damaged or diseased cholesterol containing deposits (plaque) on your arteries are usually to blame for coronary artery disease when plaques build up, they narrow your coronary arteries, causing your heart to receive less blood. Eventually, the decreased blood flow may cause chest pain (angina), shortness of breath, or other coronary artery disease signs and symptom. A complete blockage can cause a heart attack. Early studies of coronary heart disease assumed that the condition of arthrosclerosis are caused by the symptoms, psychological and psychosocial factors like stress and family environment that characterized the CHD patients. The present study evaluates the relationship between family environment and stress among patient with and without CHD. The sample for the study consisted of 30 patients aged 35-65 (n=15 with mild CHD patients, and n= 15 without CHD). The tools used were Perceived Stress Scale (PSS) Sheldon Cochen, Family Environment Scale (FES) by Bhatia & Chadha. The result of the study indicated significant negative relationship that family environment which stimulate the stress among the CHD patients. Hence it is suggested that intervention needs to be developed for the management of stress and non-stimulating family environment among the CHD patients.

Introduction

Cardiovascular diseases are present in many forms and have differing etiologies. However, among chronic cardiovascular disease, those related to atherosclerosis, rheumatic fever, and hypertension comprise the rheumatic fever, and hypertension comprise the greatest burden. These are diseases with insidious development and long latency periods, punctuated by acute clinical presentations such as myocardial infraction, stroke and heart failure. Often the first clinical manifestation of disease is sudden and unexpected death, while chronic vascular insufficiency, arrhythmia or heart failure are common presentations.

Coronary heart disease (CHD) is a major cause of mortality and morbidity all over the world. According to a report of World Health Organization (WHO) in 2005, cardiovascular disease (CVD) caused 17.5million(30%) of the 58 million deaths that occurred worldwide. United States Marks mortal weekly (2005) found that prevalence and mortality due to CHD is declining on the developed nations.

Review of literature

The burden of CHD in India can be explained by the alarming rise in the prevalence of coronary risk factors like diabetes, hypertension, atherigenic dyslipidemia, smoking, central obesity and physical inactivity. Rapid urbanization and change in lifestyle that occurred during the past two decades have led to the growing burden of coronary risk factors in India (Enas EA, etal;2004) A study conducted by Sharma(2012), found that there is a high prevalence of coronary risk factors among young population of India. He also found that prevalence of hypertension, hypercholesterolemia, obesity, physical inactivity, poor intake of fruits and vegetable has been particularly high.

Gupta et al conducted a cross- sectional survey of 1123 subjects in an urban population of Jaipur in 2002 to evaluate the prevalence of coronary artery disease and risk factors. The overall prevalence of CAD was 6.2% in men and 10.8% in women. The highest prevalence of risk factors. Included hypertension (36.9%), tobacco use (23.9%), obesity (63%) and hypercholesterolemia (39.1%). Diabetes was prevalent in 12.2% of the cases. Thus the study highlights the presence of high prevalence of CAD and risk factors in tha sample. Compared to a previous study in the same population in early 1900, the prevalence of diabetes, hypertension and dyslipidemia had increased significantly although the prevalence of CAD, smoking or physical activity had not changed.

In 2011, a large population survey form rural and urban samples of three geographical regions of Kerala was conducted. Data were collected from 5193 men and women between the ages 20 and 79 years, according to the WHO steps method. The prevalence of coronary artery disease and risk factors were collected. The study showed an alarming increase in the prevalence of CAD and most of the major risk factors. The study showed that the past tow decades, mainly driven by the rise in coronary risk factors. There was a high prevalence of CAD among young individuals (2%) as compared to western data(1.2%). Country to most of the previous Indian data, there was no difference between urban (15.1%) and rural (16.2%) prevalence of CAD in this study.

Singh et performed a population survey of CHD and risk factors in a rural and urban setting of Moradabad in 1977. A sample of 3575 subjects between ages 25 and 64 was enrolled in the survey. Overall prevalence of CHD was 9% and 3.3% in urban and rural populations respectively.

Research Methodology

Methodology is defined as the study of method by which we gain knowledge, it deals with the cognitive processes imposed on research by the problems arising from the nature of its subject matter.

Stress and Family Environment among cardiac patients

Research Question

Is there a significant negative relationship between stress and family environment among cardiac patients?

Objectives

To evaluate the relationship between stress and family environment among cardiac patients.

Hypotheses

Ho There is a significant difference between family environment of CHD patients and Normal people without CHD

H_1 There is no significant difference between the stress of CHD patients and Normal people without CHD

Sample

The sample for the study consisted of 15 patients both male and female, the participants ranged in age from 35 to 65, who can read English and Malayalam with mild CHD patients and 15 Normal people both male and female the participants ranged in age from 35 to 65, who can read English and Malayalam without CHD.

Tools used

Perceived stress scale (PSS) (10 items) by Sheldon Cohen,

Family Environment Scale (FES) (69 items) by Dr. Harpreet Bhataia and Dr. N.K. Chadha

Among the FES scale for the present study sub scales such as conflict, acceptance and caring , independence and stress only taken.

Research Design
Comparative group design
Table -1 shows the dimensions of conflict

	N	Mean	SD	t
Normal People	15	25.56	8.98	1.30
CHD Patients	15	14.2	13.21	

P> 0.05

Table – 2 shows the dimensions of acceptance and caring

	N	Mean	SD	t
Normal People	15	25.36	11.544	0.002
CHD Patients	15	16.2	2.177	

P>0.05

Table – 3 shows the dimensions of independence

	N	Mean	SD	t
Normal People	15	20.03	10.23	1.19
CHD Patients	15	11.46	1.24	

P>0.05

Table – 4 shows the dimensions of stress

	N	Mean	SD	t
Normal People	15	7.8	1.20	3.26
CHD Patients	15	35.8	14.39	

P>0.05

Results
Table 1 represents the mean, SD and t value of conflict in Normal people and CHD patients.
Mean score and SD for conflict among Normal people shows 25.56 and 8.98 respectively and mean score and SD for conflict among CHD patients shows 14.2 and 13.21. Here calculated t value is less than the table value, so we can accept the Hypotheses

Table 2 represents the mean SD and t value of acceptance and caring in Normal people and CHD patients.
Mean score and SD for acceptance and caring among Normal people shows 25.36 and 11.544 respectively and mean score and SD for acceptance and caring among CHD patients shows 16.2 and 2.177. Here calculated t value is less than the table value so we can accept the Hypotheses.

Table 3 represents the man SD and t value independence in Normal people and CHD patients.
Mean score and SD for independence among Normal people shows 20.03 and 10.23 respectively and mean score and SD for independence among CHD patients shows 11.46 and 1.24. Here calculated t value is less than the table value so we can accept the Hypotheses

Table 4 represents the mean SD and t value of stress among Normal people and CHD patients.
Mean score and SD for stress among Normal people shows 7.8 and 1.20 respectively and mean score and SD for stress among CHD patients shows 35.8 and 14.39 respectively. Here t value is hence the calculated value is greater than table value. So we reject the hypothesis. In this case we accept the alternative hypothesis that CHD patient have greater stress than Normal people.

Discussion
The present study was carried out to test the relationship between family environment and stress among cardiac patients. The correlation between the family environment and stress (both with the dimensions and stress, and sub scales and stress) has been calculated. There is a significant difference between family environment of CHD patients and Normal people. Hence the stress level of the CHD patients is high when compared to the Normal people.

On the basis of the analysis of the results this study found that the family environment place an important role in the prevalence of stress among cardiac patients. This study focused on some of the dimension of the family environment and its relationship with the stress among cardiac patients. The relationship dimension and personal growth dimension has a significant relationship with stress. The relationship dimension refers to acceptance and caring to the other members of the family. According to this study thus the high relationship bonding between the family members will reduce the chance of stress among cardiac patients.

Limitations of the study
The present study has some limitations because of time constraints. The size of the sample utilized for this study is small in number. Therefore the representatives of the sample cannot be guaranteed. Therefore caution has to taken to generalize results of this research investigation. Demographic variable are not considered due to the time constraints.

Conclusion
This investigation was undertaken to study the relationship between family environment and stress among the cardiac patients. Current estimates from epidemiologic studies from various parts of the country indicate a prevalence of CHD to be between 7% and 13% in urban and 2% and 7% in rural populations. From several researches it is found that the prevalence of stress among cardiac patients is so high. So it is important to find out the correlating factors of stress among cardiac patients. The implication of this study is to focus more on family therapies and supporting therapies such as. Meditation, Yoga, Music therapy for stress that is prevalent among cardiac patients.

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