



A study of mental health and coping among women with coronary heart disease and women without coronary heart disease

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Abstract

Coronary heart disease is a condition in which plaque builds up inside the coronary arteries. Women with coronary heart disease face mental health issues, depressed mood and have severe stress symptoms. They must enhance their coping strategies to deal with stress and try to live a good quality of life. The current study was designed to compare mental health and coping among women with coronary heart diseases and without coronary heart diseases. The sample for the current study consists of 50 women, where 25 women are those with coronary heart disease, and the other 25 women without coronary heart disease. The subjects range from 45-55 years of age. For this purpose, Mental Health Checklist by the National Mental Health Association of Alaska (1998) and Coping Style Inventory by Carver *et al.* (1989) were administered to the sample. The t test was used for statistical analysis of the results in order to compare mental health and coping in life in women with coronary heart disease and women without coronary heart disease. Results will be discussed in terms of its implications.

Keywords: coronary heart disease, women, mental health, coping

Introduction

Coronary heart disease also called coronary artery disease is a condition in which plaque builds up inside the coronary arteries. These arteries supply oxygen-rich blood to your heart muscle. Over time, coronary heart disease can weaken the heart muscle and lead to heart failure 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.

Prevalence/incidence of coronary heart disease in India

Coronary heart disease affects Indians with greater frequency and at a younger age than counterparts in developed countries, as well as many other developing countries. Age-standardized death rates in people 30-69 years old are 180 per 100,000 in Britain, 280 per 100,000 in China, and 405 per 100,000 in India. Also, 50% of coronary heart disease-related deaths in India occur in people <70 years of age, whereas only 22% of coronary heart disease-related deaths in Western countries occur in this age group (Gaziano, 2006) ^[7].

Risk factors in women post menopause

Coronary heart disease (CHD) is a multifactorial disease, its expression probably being influenced by the interaction of genetic and environmental risk factors as mentioned above. Especially in women, CHD is a leading cause of death, in fact more frequent than breast cancer, at all ages (Rosenberg, 1981) ^[12]. Several epidemiological studies indicate a higher incidence of the disease in postmenopausal women when compared to women of reproductive age. In addition, postmenopausal women with CHD have more advanced coronary artery stenosis compared to premenopausal women.

Hypotheses

1. It is expected that women with coronary heart disease will score lower on mental health than women without coronary heart disease.
2. It is expected that women with coronary heart disease will differ significantly on coping than women without coronary heart disease.

Methodology

The current investigation is designed to compare women with coronary heart diseases and women without coronary heart diseases on mental health and coping.

Sample

The sample for the current study consists of 50 women, where 25 women are those with coronary heart disease, and the other 25 women without coronary heart disease. The subjects range from 45-55 years of age.

Tests and tools

For this purpose, the following tests are administered to the sample:

1. Mental Health Checklist by the National Mental Health Association of Alaska (1998).
2. Coping Style Inventory by Carver *et al.* (1989) ^[4].

Statistical Analyses

Arithmetic mean, standard deviation, and t-ratio were applied for statistical analyses. The t-test was applied to find if there are any significant differences between the 2 groups, that is, women with coronary heart disease and women without coronary heart disease on mental health and coping. The data

is depicted in a tabular manner and the results are discussed further.

Results

Table 1: shows the mean and standard deviation of the scores of women with coronary heart disease on the variables of the study:

Variable	Mean	Standard deviation
Mental Health (total)	9.4	2.38
Task focussed coping	12.76	3.12
Emotion focussed coping	12.04	2.22
Avoidant focussed coping	11.84	2.11
Coping (total)	36.56	5.03

Table 2: shows the mean and standard deviation of the scores of women without coronary heart disease on the variables of the study:

Variable	Mean	Standard deviation
Mental Health (total)	13.6	2.19
Task focussed coping	17.24	5.75
Emotion focussed coping	18.64	6.33
Avoidant focussed coping	10.08	5.15
Coping (total)	45.8	14.47

Table 3: shows the t values of all the variables of the current study between women with coronary heart disease and without coronary heart disease: (df = 48)

Mental Health (total)	3.24**
Task focussed coping	0.0001
Emotion focussed coping	3.10**
Avoidant focussed coping	0.06
Coping (total)	5.93**

*significant at 0.05 level and ** significant at 0.01 level.

Discussion

The purpose of the current study was to compare women with coronary heart diseases and women without coronary heart on mental health and coping.

Hypothesis 1 stated that women with coronary heart disease will score lower on mental health than women without coronary heart disease. The t test value came out to be 3.24 which is significant. Thus, Hypothesis 1 is accepted. Researchers noted that men and women with heart disease rated lower on the mental health measure than did participants free of coronary heart disease. On average, coronary heart disease patients had 2.4 percent lower mental health scores (Hansen, 2003) [9]. Research evidence consistently demonstrates that people with long-term conditions are two to three times more likely to experience mental health problems than the general population. Much of the evidence relates specifically to affective disorders such as depression and anxiety, though co-morbidities are also common in dementia, cognitive decline and some other conditions.

There is particularly strong evidence for a close association with cardiovascular diseases, diabetes, chronic obstructive pulmonary disease (COPD) and musculoskeletal. In addition to the relationship with diagnosable mental health problems, there is an independent association between physical illness and emotional distress (Delahanty *et al.* 2007) [5]. Depression is two to three times more common in a range of cardiovascular diseases including cardiac disease, coronary

artery disease, stroke, angina, congestive heart failure, or following a heart attack (Fenton and Stover, 2006; Benton *et al.* 2007; Gunn *et al.* 2010) [6, 2, 8].

Hypothesis 2 was that women with coronary heart disease will differ significantly on coping than women without coronary heart disease. Coping is defined as the individual's effort to manage external and/or internal demands that are estimated to exceed the individual's assets of behavioural and cognitive ability. Recent research showed that the coping strategies persons adopt, affects not only their psychological, but also their physical well-being (Piko, 2001) [11]. In the present study, coping was studied under its three dimensions- emotion focussed coping, task focussed coping and avoidant focussed coping and then, the cumulative coping score was calculated for proving the hypothesis.

Significant differences have been found in emotion focused coping. Women with coronary heart disease are emotionally unstable, they panic easily and have no control over their emotions. Patients who had a heart attack were more likely to employ emotion-focused strategies to deal with their stress, while those in the control group who did not have a heart attack or heart disease were more likely to use problem-focused strategies (Hallman *et al.* 2003). Common types of emotion-focused coping strategies include suppressing negative thoughts or emotions, praying, eating more, drinking alcohol, blame and disclaiming instead of focusing on the actual situation of the problem. Patients who use problem-solving coping strategies use three common techniques to deal with the cause of their problem including taking control, seeking information and evaluating the pros and cons.

No significant differences have been found in task focused coping and avoidant focused coping in the present study due to the small sample size taken. However, significant differences have been found in the review of literature in terms of task focused coping and avoidant focused coping (Burke and Richardsen, 1996) [4]. Studies report that women with coronary heart disease tend to be low in task focused coping (De Longis, 1982). They have problems in concentration as they feel stressed most of the time. Women with coronary heart disease are high on avoidant coping (Aldwin, 2000) [1].

They have a tendency to avoid situations to reduce stressful situations as compared to women without coronary heart disease. So, there exists a significant difference on coping in women with coronary heart disease and women without coronary heart disease. Women experience coronary heart disease as very stressful and thus, use more emotion focussed and avoidance focussed coping strategies (Kristofferzon *et al.* 2005) [10].

Conclusion

The biggest villain of all the heart conditions is coronary artery disease. Women with coronary heart disease have worse health related quality of life, stress and depression leading to low mental health. Women with coronary heart disease and women without coronary heart disease differ significantly on the coping strategies to deal with stress. Effective coping interventions are needed to help women with coronary heart disease to live their life stress free, and with a good mental health.

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