

A comparative study of women with coronary heart disease and women without coronary heart disease on happiness, perceived stress and satisfaction with life

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Abstract

Coronary heart disease is a condition in which plaque builds up inside the coronary arteries. Coronary heart disease starts when certain factors damage the inner layers of the coronary arteries. The factors which cause coronary heart disease are smoking, high levels of cholesterol in the blood, high blood pressure, high levels of sugar and blood vessel inflammation. Younger women, those ≤ 60 years old, were less likely to have coronary disease compared with older women. The current study was designed to compare happiness, perceived stress and satisfaction with life 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, The Happiness Measure Scale (Fordyce *et al.*, 1988), Perceived Stress Scale (Cohen *et al.*, 1983) and Satisfaction with Life Scale by Diener *et al.*, (1985) were administered to the sample. The t-test was used for statistical analysis of the results in order to compare happiness, perceived stress and satisfaction 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, stress, happiness, life satisfaction

Introduction

Heart diseases or cardiovascular heart diseases are the class of diseases that involve the heart or blood vessels (arteries and veins). Cardiovascular Disease (CVD) includes dysfunctional conditions of the heart, arteries, and veins that supply oxygen to vital life-sustaining areas of the body like the brain, the heart itself, and other vital organs. There are many types of cardiovascular diseases but in the present study, coronary heart disease is taken into consideration. Women with coronary heart diseases and women without coronary heart diseases are taken for the present study and compared on psychosocial variables.

Coronary heart disease

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. Plaque is made up of fat, cholesterol, calcium, and other substances found in the blood. When plaque builds up in the arteries, the condition is called atherosclerosis.

Gender differences in Coronary heart disease

Women have lower rates of severe coronary artery disease than men. It has been well established that women present with atypical symptoms and men present with typical symptoms. Younger women, those ≤ 60 years old, were less likely to have coronary disease compared with older women. In older women, coronary artery disease is the leading cause of death in women after menopause. More than twice as many women die from cardiovascular disease as from all forms of

cancer combined (Rosamond *et al.*, 2007) [7].

Hypotheses

1. It is expected that women with coronary heart disease will score low on happiness than women without coronary heart disease.
2. It is expected that women with coronary heart disease will score high on perceived stress than women without coronary heart disease.
3. It is expected that women with coronary heart disease will score low on satisfaction with life 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 happiness, perceived stress and satisfaction with life.

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:

- a. The Happiness Measure Scale by Fordyce *et al.* (1988) [4].
- b. Perceived Stress Scale by Cohen *et al.* (1983) [2].

c. Satisfaction with Life Scale by Diener *et al.* (1985) [3].

Statistical Analyses

For all the variables of the investigation, arithmetic mean, standard deviation, and t-ratio were applied to it for statistical analyses. The t-test was applied to find if there were any significant differences between the 2 groups, that is, women with coronary heart disease and women without coronary heart disease, in terms happiness, perceived stress and satisfaction with life. 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
Happiness	4.56	1.44
Perceived Stress	27.08	2.41
Satisfaction with life	19.04	2.96

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
Happiness	8.28	0.84
Perceived Stress	15	4.83
Satisfaction with life	25.64	6.12

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)

Variable	t value
Happiness	3.54**
Perceived stress	7.50**
Satisfaction with life	2.27*

* 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 diseases on happiness, perceived stress and satisfaction with life. Hypothesis 1 was that women with coronary heart disease will score lower happiness than women without coronary heart disease. The t test has come out to be 3.54 which is significant and thus, Hypothesis 1 is accepted. Coronary heart disease patients live longer, but not always happier, lives. They report low on happiness, quality of life and optimism. They have low moods due to their disease (Xie *et al.*, 2006) [9]. Coronary heart disease significantly reduced happiness, controlling for age, gender and wealth. People who had had a stroke reported the lowest levels of happiness followed by those with chronic lung disease, coronary heart disease osteoarthritis and rheumatoid arthritis (Wikman *et al.*, 2011) [8].

Hypothesis 2 was that women with coronary heart disease will score higher on perceived stress than women without coronary heart disease. The t test for perceived stress came out to be

7.50 which is significant. Thus hypothesis 3 is accepted. Brunner and Marmot (1993) stated that coronary heart disease makes a person anxious, depressed and stressed. The disease acts as a stressful life event and the person experiences stress most of the times. Patients with chronic illness such as coronary heart disease face disease-related stressors (Heijmans *et al.*, 2004) [6].

Hypothesis 3 was that women with coronary heart disease will score lower on satisfaction with life than women without coronary heart disease. The t test came out to be 2.27 which is significant which leads to acceptance of the fourth hypothesis. Women after their post menopause experience lots of problems and are prone to many diseases. They feel insecure about their lives and they are not able to enjoy their life with full quality and satisfaction (Heckman, 2003) [5] whereas women with no coronary heart disease are high on satisfaction with life. Patients with coronary heart disease were more likely to say they had poorer quality of life, or describe themselves as sick (Xie *et al.*, 2006) [9].

Conclusion

Coronary heart disease is a major cause of death in worldwide. It is a fatal disease and it's more common in women as compared to men. This results to lot of disease related stressors in women and their stress levels increase a lot. It affects their affective wellbeing, mood and happiness levels also. The overall life satisfaction and quality of life deteriorates in women with coronary heart disease. Interventions need to be made for developing good mental health in women with coronary heart disease so that they can cope up with their stress symptoms and poor quality of life.

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