

Relationship between Perceived Stress and Hypertension

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Abstract

In the present study an attempt was made to explore in relationship between perceived stress and hypertension. One hypothesis was formulated there would be positive significant relationship between perceived stress and hypertension. Perceived stress scale was administered on seventy hypertension patients his age range from 40 to 75 years. Majority of the subjects were married and were from middle class. Correlation coefficient was computed and the findings indicated that high perceived stress is significantly associated with hypertension.

Essential hypertension has been identified as major risk factor for the premature development of coronary *atherosclerosis*. Most cases of cardiovascular result from a vascular disease, in which smooth inner walls of the coronary arteries developed tears that do not heal properly. Closely related to *atherosclerosis* is *arteriosclerosis*, or "hardening of the arteries." In this condition, the coronary arteries lose their elasticity, making it difficult for them to expand and contract. This makes it even harder for them to handle the large volumes of blood needed during physical exertion. In addition, a blood clot is much more likely to form in, and block, a coronary artery that has lost its elasticity due to arteriosclerosis.

Many investigators advocated the role of traditional risk factors such as smoking, alcohol, lack of exercises and obesity. (Hackman, 1998; Kop, Gattdiener and Krantz, 2001). However, on the other hand investigators have also stressed on the role of sociological factors such as sex, age, occupation and socio-economic status in cardiovascular diseases, (Stunkard and Sorensen, 1993; US Bureau of the census, 2000). According to Silentanen (1984) personality studies have generally focussed on general neuroticism (Waston and Pennebaker, 1989), anxiety (Kubzansky and Kawachi, 2000; Gallo and Matthews, 2003), depression, somatization, sleep disturbance and general exhaustion (Costa and Mc Crae, 1992; Davison, Reieckman and Lesperance, 2004). It has been shown that generally neuroticism is closely related to general morbidity, coronary and non-coronary morbidity and angiography coronary changes.

Objective

- To see the relationship between perceived stress and hypertension.

Hypothesis

- There would be positive significant relationship between perceived stress and hypertension.

Sample

A total of 70 male subjects age range from 40 to 75 participated in present study to fulfill the requirement. Participation of the subject in the present study was voluntary and informed consents were obtained from all the subjects. Majority of the subjects were married and were from middle class.

Tools

A global measure of perceived stress scale was developed by Cohen, Kamarck and Mermelsein (1983). It provides a potential tool for examining issues about the role of appraised stress level in the etiology of disease and behavioral disorders. It consists 14 items. Each item has five alternative, e.g., never, almost never, some times, fairly often and very often. Perceived stress scale scores are obtained by reversing the scores on the seven positive items, e.g., 0=4, 1=3, 2=2, etc. and then summing across all 14 items. Items 4,5,6,7,9,10 and 13 are the positively stated items. Adequate reliability and validity for the global measure of Perceived Stress Scale have been reported by Cohen, Kamarck and Mermelsein (1983), The perceived stress scale has correlated in expected directions with a range of self-report and behavioral criteria. The coefficient alpha reliability for the PSS was .84, .85 and .86 in sample 1, 11 and 111. The PSS was significantly correlated with depressive symptomatology in sample one was .76 and with sample two was .65. The scale also significantly correlated with physical symptomatology in sample one ($r=.52$) and in sample two was ($r=.65$). Similarly health centre utilization was significantly correlated with PSS scores (.20). In both student samples, increases in social anxiety were associated with increases in perceived stress ($r=.37$ and $r=.48$ for both samples)

Statistical Analysis

The data was analyzed by using SPSS software. Pearson's correlation coefficient statistical method was used.

Results and Discussion

The obtained results for investigated the relationship between perceived stress and hypertension. The results of the r value i.e .24 between perceived stress and hypertension. The r value is positively significant. It means high stress can lead to hypertension.

Table showing the correlation coefficient between perceived stress and hypertension

N	r	P
70	.24	>.05

Formulated hypothesis there would be positively significant relationship between perceived stress and hypertension. Results supported by study of Sherwood, Hinderliter, and Light (1995) have indicated that the role of stress in the development and exacerbation of hypertension may be different for people at risk for hypertension than for those who are not, and it may change as hypertension progress. People without preexisting signs of hypertension show large and reliable blood pressure responses to stressors, primarily when they must make an active behavioral response to that stress.

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