Relationship between stress and cardio vascular endurance among college men

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Abstract
The purpose of the study was to examine the relationship between stress and cardio vascular endurance among college men. Sixty (N=60) young male subjects were randomly selected from the Purba Medinipur district of west Bengal. The ages ranged of the subjects were 20-25 years. In this study Cardio vascular endurance was measured by Harvard step test and Stress were measured by SPSSI questionnaire. Collected data on cardio vascular endurance and stress were statistically treated through calculation of mean, S.D. and coefficient correlation for interpretation, analysis and discussion. Level of significance was chosen at 0.05% level of confidence. For statistical calculation SPSS software 20.0 version was used. The result of the present study revealed inversely significance relationship between stress and cardio vascular endurance among college men.

Keywords: Stress, cardio-vascular endurance, college men.

1. Introduction
Over the decades, the society in general has realized the need for keeping fit and healthy through organized physical activity programmes. Scientific evidence from biological science has made it clear that unless man engages himself in organized vigorous physical activity programmes the real benefits would not come. Health-related physical fitness is defined as fitness related to some aspect of health. This type of physical fitness is primarily influenced by an individual’s exercise habits; thus, it is a dynamic state and may change. Physical characteristics that constitute health-related physical fitness include strength and endurance of skeletal muscles, joint flexibility, body composition, and cardio respiratory endurance. All these attributes change in response to appropriate physical conditioning programs, and all are related to health.

The term “Stress” is discussed not only in everyday conversations but has also become an issue to attract widespread media attention. Different people have different views about it as stress can be experienced from a variety of Sources. Dr. Selye Hans said “Without stress, there would be no life” Olpin, Micheal and Helson Margie (2010, 2007).

Most of the early concern with stress was directed at physiological symptoms. The specialists in health and medical sciences and the researchers have concluded that physiological stress could create changes in metabolism, increased heart and breathing rates, increased blood pressure and bring on headaches and induce heart attacks. The link between stress and a particular physiological symptom is not clear.

Stress has become a pervading feature of people’s life in modern world. The modern world which is said to be a world of achievements is also a world of stress. Stress is everywhere, whether it is in the family, business organization, enterprise, institute or any other social or economic activity. Right from birth till death, an individual is invariably exposed to various stressful situations.

Stress is usually caused by any kind of emotional or physical stimulus or situation. Most often, people speak of varied types of stress like relationship stress, work stress, or parenting stress. There are a few kinds of stress that are related to particular stages of life such as pregnancy, ageing, teen years, menopausal transition and the like. In fact, even children are affected by stress in the contemporary world.

Risk factors contributing to uncontrollable stress include medical illness, lack of social support networks, social and financial problems and family history of family discord or stress.
The physiological stress-effects may result in the following symptoms: physical ailments, digestive problems, sleep trouble, erratic breathing, muscular problems, headaches and other aches, frequent urination, cardiovascular troubles, severe symptoms including ulcer, heart attacks, arthritides and even cancer, susceptibility to allergies, fatigue, rapid gain or loss of weight. These illnesses or symptoms cause serious physiological impairments. In fact, they may also affect mental health of a person.

### 1.1 Purpose of the study

The purpose of the study was to find out the relationship between stress and cardiovascular endurance among college men.

### 2. Methodology

Sixty (N=60) college men subject were randomly selected from the Purba Medinipur district of West Bengal. The ages ranged of the subjects were 20-25 years. In this study cardiovascular endurance was measured by Harvard step test and stress was measured by SPSSI questionnaire. Collected data were statistically treated through calculation of mean, S.D. and coefficient correlation for interpretation, analysis and discussion. Level of significance was chosen at 0.05% level of confidence. For statistical calculation SPSS software 20.0 version was used.

### Table 1: Mean standard deviation and Correlation of coefficient of stress and cardiovascular endurance among college men

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>R</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>66.45</td>
<td>7.02</td>
<td>-.279*</td>
<td>Significant</td>
</tr>
<tr>
<td>Cardiovascular endurance</td>
<td>88.89</td>
<td>9.65</td>
<td></td>
<td></td>
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</tbody>
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Correlation is significant at the 0.05 level (2-tailed).

### Fig 1: Graphical representation of mean and standard deviation of stress and cardiovascular endurance among college men

#### 3. Discussion of findings

Stress is significantly correlated with Harvard step test, and the correlation value is -.279* which is significant 5% level of confidence.

Comparing of these parameter, it is to be concluded that stress is inversely correlated with cardiovascular endurance. That means the more the subjects have endurance capacity the less the stress of the subjects. From this point of view it can be said that regular physical activity which is the only method for maintaining physical fitness and which have a positive effect on stress of the individuals. We know that Psychological stress and physical activity are believed to be reciprocally related with each other. Exercise as the best way to manage stress and by developing cardiovascular endurance reduce the level of stress.

### 4. Conclusion

Within the limitations of the present investigation the conclusions was drawn on the basis of the obtained results: stress is inversely correlated with cardiovascular endurance which related significantly.

### 5. References