



## The effect of aerobic exercise on stress level of undergraduate male students

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### Abstract

The purpose of the study was to assess the effect of aerobic exercises on undergraduate male students of various colleges of University of Delhi. A total number of 75 undergraduate male students were taken as the subjects of this study. The age of the selected subjects was above 17 years of age. The Perceived Stress Scale (PSS) was employed as a questionnaire. Scoring was done according to the instructions given in the test manual of the checklist. The descriptive statistics was used for summarizing numerical data. To compare the stress paired samples *t* test was applied. The statistical analysis was performed with the help of SPSS. The result of the study indicated that there is a significant difference in stress of undergraduate male students. The Post Stress has lower Mean and SD value then Pre Stress.

**Keywords:** stress, aerobic, undergraduate, male

### Introduction

Physical exercise is widely recognized as the best way to keep the body healthy and active. Neglect of bodily health can be disastrous for us. It causes several physical and mental problems. Slowly our body becomes vulnerable to many diseases. His energy and beauty is lost early. He grows old early. Strength, stamina and power of concentration decline. Physical exercise is of different kind. Different people have different choices and preferences. Many people enjoy morning walk. Some find pleasure in cycling and jogging. Several people like to do gardening or swimming. Many people find it easier and convenient to spend an hour or two in doing work out in a well-equipped gym. Skipping is also a popular way to keep one's body fit and healthy. These days' yoga and meditation are also gaining popularity. They are easier to practice and highly effective in keeping one fit and healthy. Regularity in exercise is imperative for the preservation of good health. It is a good source of energy, stamina and strength. Consistency adds to the result of exercise. Lack of it cannot bring good result. So, we should be very regular and

consistent in physical exercise. Physical exercise is a form of discipline. It means self- control and sincerity. Physical exercise helps in character building. It makes our mind sharp and active. It improves mental strength and capability. It adds to our capability and improves our performance. Physical exercise done in morning keeps us healthy, fit and active for the whole day. Therefore we should take it regularly. It is a must to keep us fit and healthy.

Physical exercise is associated with increase in rate and depth to increase ventilation of lungs and increase in stroke volume and heart rate to increase the cardiac output. (Micheli, J, Harries, Williams, Stanish, 1999)

Stress is a central concept for understanding both life and evolution. All living thing face threats to homeostasis, which must be met with adaptive responses. Our future as individuals depends on our ability to adapt to potent stressors. Stress generally refers to two things: the psychological perception of pressure, on the one hand, and the body's response to it, on the other, which involves multiple systems, from metabolism to muscles to memory.

**Table 1:** Descriptive Statistics of Stress of Undergraduate Students

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
PRE-TEST	75	11.00	17.00	14.47	.17	1.50
POST-TEST	75	11.00	17.00	13.13	.15	1.27
Valid N (list wise)	75					

The table reveals the descriptive analysis of PRE and POST Stress in undergraduate male students. It was found that the mean value of Stress PRE is 14.47 and the SD post value is

1.50. The mean value of Stress Post is 13.13 and the SD post value is 1.27. Graphical Representation of data is given in figure 1.

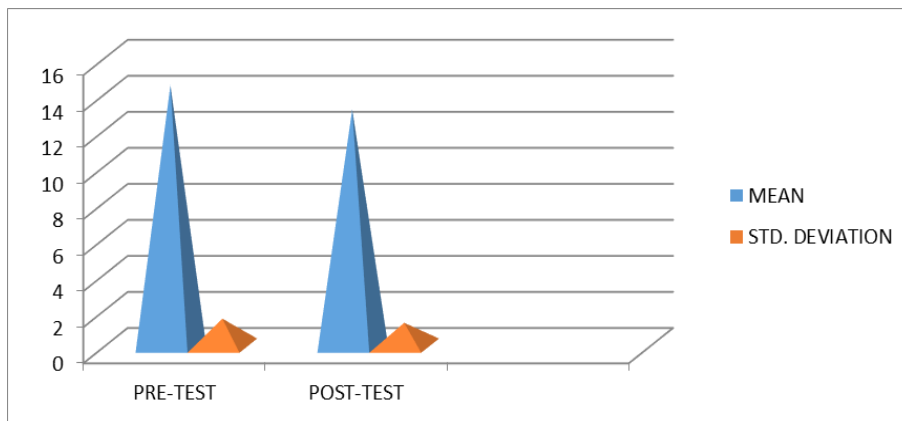


Fig 1: Graphical Representation of Mean and SD Stress

Table 2: Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
PRETEST – POSTTEST	1.33	1.48	.17	.99	1.67	7.79	74	.01

A paired sample *t* test revealed that stress level of undergraduate male students is reduced in post test ( $m = 13.13$ ,  $s = .15$ ) compared to pretest ( $m = 14.47$ ,  $s = .17$ ),  $t(74) = 7.79$ ,  $p \leq .05$ .

**Methods and Procedure**

**Subjects**

A total of 75 undergraduate male students were taken as the subjects of this study. The age of the selected subjects was between 17-21 Years of age.

**Tool**

**PSS** - was employed as questionnaire. This scale is called The Perceived Stress Scale by Sheldon Cohen is used for assessing Stress. The Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one’s life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress. The items are easy to understand, and the response alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way.

**Procedure of Data Acquisition**

The questionnaire, that is, The Perceived Stress Scale (PSS) was administered at various colleges of University of Delhi. Scoring was done according to the instructions given in the test manual of the checklist.

**Statistical Analysis**

Descriptive Statistics was used for summarizing numerical data to make them more easily interpretable, including

especially the mean, standard deviation, minimum and maximum of a set of scores. To compare the stress paired samples *t* test was applied. The descriptive statistics for the Stress variable on the sample ( $n=75$ ) was presented for the pre test and post test of the undergraduate male students. The statistical analysis was performed with the help of SPSS.

**Discussion**

Physical activities are very important for everyone now and later in life. The amount of physical activity and the type of physical activity affect throughout the life time and affect the quality of life. The importance of physical activities recognized by Plato when he said “lack of activity destroys the good condition of every human being, while movement and methodical physical exercise save it and preserve it.” The above analyzed data and the interpreted table clearly reveals that there is a significant difference in stress of undergraduate male students. The mean and sd of Post Stress is lower than the mean and SD of Pre Stress. So, therefore it shows that due to aerobic exercise there is reduction in stress level of undergraduate male students. The assumptions of the researcher are further supported by the findings of (Roth, 1989) [1], that the aerobic exercise reduces the level of stress.

**Conclusions**

On the basis of the results the following conclusions are drawn.

1. Undergraduate male students have significantly lower stress in post-test.
2. Undergraduate male students Post Stress has lower Mean value then Pre Stress.
3. Undergraduate male students Post Stress has lower SD value then Pre Stress.

**References**

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