



COMPARATIVE ANALYSIS OF SELECTED PHYSICAL FITNESS VARIABLES OF INDUSTRIAL TRAINING INSTITUTE SPORTSMEN AMONG VARIOUS DISTRICTS OF COIMBATORE REGION

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ABSTRACT

The purpose of this study was a comparative analysis of the selected physical fitness variables of ITI sportsmen among various districts of Coimbatore region. To achieve the purpose of the study, 120 ITI sportsmen of Coimbatore region were selected as subjects. The age group of subject was 16 to 25 years. The criterion variables selected for this study were arm strength and endurance and trunk flexibility. The selected criterion variables were tested by the following standardized test items; arm strength and endurance was measured by push-up test and trunk flexibility was measured by sit and reach test. In order to find out the difference among Coimbatore, Nilgiris, Erode and Salem districts ITI sportsmen of Coimbatore region, one way analysis of variance was applied. The level of significance was fixed at 0.05 level and whenever the 'F' ratio was found to be significant, then scheffe's post hoc test was applied to find out to which paired means got significant difference. Within the limitations imposed by the experimental conditions, it was concluded that there is a significant difference found on arm strength and endurance and there is no significant difference found on trunk flexibility among Coimbatore, Nilgiris, Erode, Salem districts ITI sportsman of coimbatore region.

INTRODUCTION

Physical fitness of a player in any game encompasses his ability to execute efficiently any skill at any time, under any situation for a long duration. Fitness is a product of exercise and exercise training has been shown through research to possess important implications in the general health of people. However, fitness is more than a product of exercise, while exercise it is necessary to obtain and maintain fitness, there is more involved that more physical activity. Thus, physical fitness is not a state for the young; it is for all ages physiological fitness can be attained only through exercise.

Physically unfit persons are not only burden for their family but also deteriorate national wealth. A physically fit person only could have the capacity to preserve national wealth. While you may know that physical fitness is "good for you" you may lack some of the key points as to why you need

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to include it in your life. But before you can understand the importance of physical fitness we must first take a look at what physical fitness is. In general terms, fitness is the use of your body through movements beyond that of your normal bodily functions that simply keep you alive. What I mean is this, fitness is really anything that moves the body and forces it to exert energy greater than the body's normal living functions like breathing, eating, use of senses, heartbeat, etc. Physical fitness can be anything from walking up and down stairs, going for a walk, swimming, going for a run, weight lifting, competing in sports, and more.

Physical fitness is defined as the state or condition of being physically sound and healthy, especially as the result of exercise and proper nutrition. It is, thus, a state of general well being, marked by physical health as well as mental stability. Physical fitness is not just about having a lean body; it is about having cardiovascular and overall muscular endurance, as well as a strong immunity system, and most importantly, a satisfied and happy state of mind.

METHODOLOGY

The purpose of this study was for a comparative analysis of selected physical fitness variables among Coimbatore, Nilgiris, Erode and Salem districts ITI sportsmen. To achieve the purpose of the study, 120 ITI sportsmen from Coimbatore region were selected as subjects. The age group of the subject was 16 to 25 years. The criterion variables selected for this study were arm strength and endurance and trunk flexibility. The selected criterion variables were tested by the following standardized test items; arm strength and endurance was measured by push-up test and trunk flexibility was measured by sit and reach test. In order to find out the difference among Coimbatore, Nilgiris, Erode and Salem districts ITI sportsmen on the selected variables, one way analysis of variance was applied. Whenever the 'F' ratio was found to be significant, then scheffe's post hoc test was applied to find out to which paired means got significant difference. The level of significance was fixed at 0.05 levels.

RESULTS AND DISCUSSION

TABLE I
COMPARATIVE ANALYSIS OF VARIANCE OF COIMBATORE NILGIRIS ERODE AND SALEM DISTRICTS ITI SPORTSMEN ON ARM STRENGTH AND ENDURANCE

Source of variance	SS	DF	MS	F
Between	203.37	3	67.79	4.09*
Within	1921.80	116	16.57	

*Significant at 0.05

Table I shows that the obtained F ratio of 4.09 is greater than the table values of 2.68 and it is significant at 0.05 level. It is clear that the variance of Coimbatore, Nilgiris, Erode and Salem districts ITI sportsmen significantly differ on their arm strength and endurance. The arm strength and endurance of Coimbatore, Nilgiris, Erode and Salem districts ITI sportsmen is graphically illustrated in figure I.

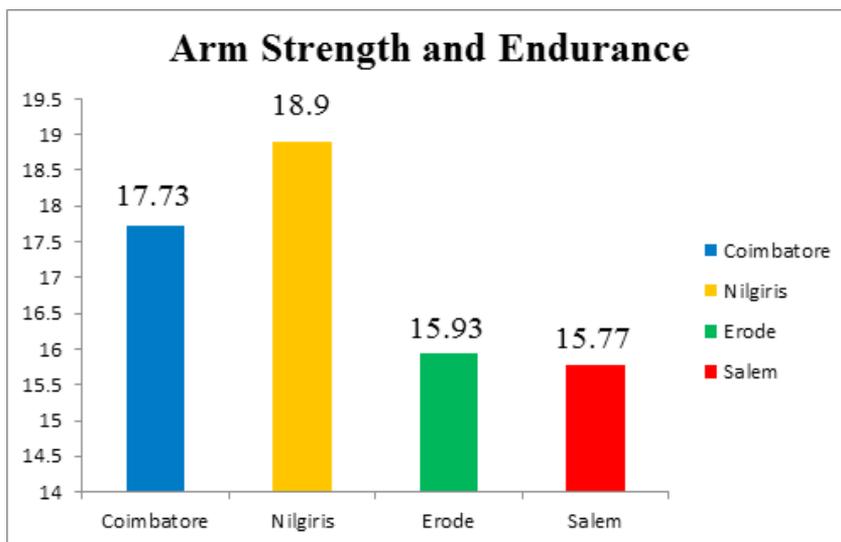


FIGURE I

BAR DIAGRAM SHOWS MEAN VALUES OF COIMBATORE NILGIRIS ERODE AND SALEM DISTRICTS ITI SPORTSMEN ON ARM STRENGTH AND ENDURANCE

TABLE II

SCHEFFE'S POST HOC TEST FOR COMPARATIVE ANALYSIS OF VARIANCE OF COIMBATORE NILGIRIS ERODE AND SALEM DISTRICTS ITI SPORTSMEN ON ARM STRENGTH AND ENDURANCE

Coimbatore	Nilgiris	Erode	Salem	MD	Sig
17.73	18.90			-1.17	0.75
17.73		15.93		1.8	0.41
17.73			15.77	1.96	0.33
	18.90	15.93		2.97	0.05
	18.90		15.77	3.31	0.04*
		15.93	15.77	0.16	0.99

*significance at 0.05 level.

The above table, clearly indicates that the level of arm strength and endurance for Coimbatore, Nilgiris, Erode and Salem district's ITI Sportsmen the paired means of few districts differ significantly. Among the various districts ITI sportsmen the paired means of Nilgiris and Salem districts alone significantly differ on arm strength and endurance. The paired means of Coimbatore and Nilgiris, Coimbatore and Erode, Coimbatore and Salem, Nilgiris and Erode, and Erode and Salem showed insignificant difference on arm strength and endurance.

TABLE III
COMPARATIVE ANALYSIS OF VARIANCE OF COIMBATORE NILGIRIS
ERODE AND SALEM DISTRICTS ITI SPORTSMEN ON TRUNK FLEXIBILITY

Source of variance	SS	DF	MS	F
Between	85.32	3	28.44	.93
Within	3541.76	116	30.53	

*Significant at 0.05

Table III shows that the obtained F ratio of .93 is lesser than the table values of 2.68 and it is insignificant at 0.05 level. It is clear that the variance of Coimbatore, Nilgiris, Erode and Salem districts ITI sportsmen did not differ significantly on their trunk flexibility. The trunk flexibility of Coimbatore, Nilgiris, Erode and Salem districts ITI sportsmen is graphically illustrated in figure II.

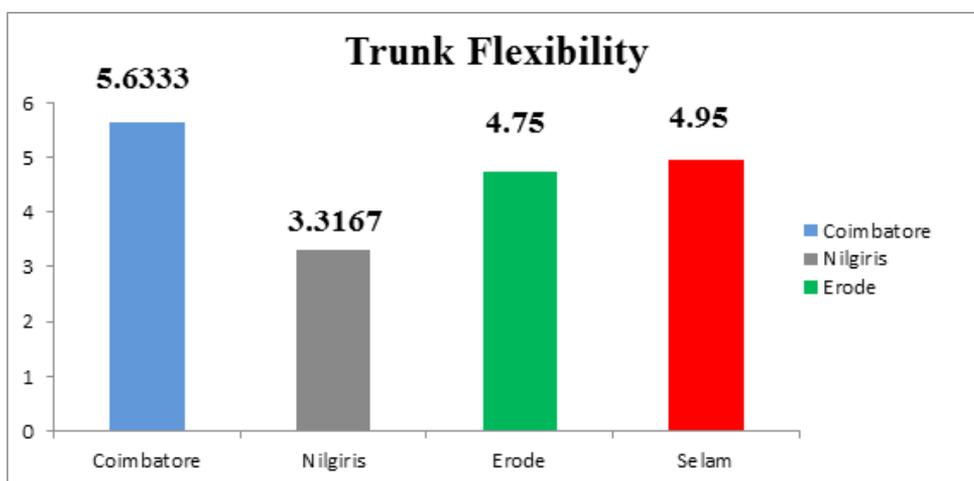


FIGURE II

BAR DIAGRAM SHOWS THAT THE MEAN VALUES OF COIMBATORE NILGIRIS ERODE AND SALEM DISTRICTS ITI SPORTSMEN ON TRUNK FLEXIBILITY

DISCUSSION ON FINDINGS

1. The results of the study reveal that there is a significant difference found in arm strength and endurance among Coimbatore Nilgiris Erode and Salem districts ITI sportsmen. And also when

comparing the mean values of arm strength and endurance for the Coimbatore Nilgiris Erode and Salem districts ITI sportsmen of Coimbatore region the Nilgiris district ITI sports men have higher arm strength and endurance than the other districts.

2. The results of the study reveal that there is insignificant difference found in trunk flexibility among Coimbatore Nilgiris Erode and Salem districts ITI sportsmen. And also when comparing the mean values of trunk flexibility of the Coimbatore Nilgiris Erode and Salem districts ITI Sportsmen of Coimbatore region, the Coimbatore district ITI sports men have higher trunk flexibility than the other districts.

CONCLUSIONS

1. There is a significant difference found in arm strength and endurance among Coimbatore, Nilgiris, Erode, Salem districts ITI sportsman.
2. There is no significant difference found on trunk flexibility among Coimbatore, Nilgiris, Erode, Salem districts ITI sportsmen.

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