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## Dimensional profile of long distance runners

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### Abstract

The purpose of the study was to prepare a profile of long distance runners. To achieve the purpose of the study, 20 long distance runners were selected at random as subject from Coimbatore district. The age of the subjects ranged from 18 to 28 years. The following variables were selected for this study. They are height, weight, and arm strength, leg strength personality dimension (activity- passivity trait, enthusiastic and non- enthusiastic trait, assertive submissive, suspicious trusting, depressive- non-depressive emotional instability, and emotional stability) and competition anxiety. The data were collected by using standardized tests of physical variables and standardized questionnaire of psychology variables. The collected data were analyzed and the results are shown by graphical representations. On the basis of the results obtained graphical representation of the data on dimensional profile of long distance runner's physical and psychological variables were shown. Within the limitation of the present study the following conclusions are drawn. The dimensional profiles of Coimbatore district long distance runners have average level of height, weight and more in arm strength in physical variables. The dimensional profile of Coimbatore district long distance runners have less activity – passivity trait in dimensional personality of passivity trait in dimensional personality of psychological variables. The dimensional profile of Coimbatore district long distance runners have more enthusiastic and non-enthusiastic in dimensional personality of psychological variables. The dimensional profiles of Coimbatore district long distance runners are more assertive-submissive in dimensional personality of psychological variables. The dimensional profiles of Coimbatore district long-distance runners are more suspicious trusting in dimensional personality of psychological variables. The dimensional profiles of Coimbatore district long distance runners have more emotional instability and emotional stability in dimensional personality of psychological variables. The dimensional profiles of Coimbatore district long distance runners have average level of competition anxiety.

**Keywords:** Dimensional profile, runners, height, weight, and arm strength, psychological variables

### Introduction

Profile studies have been employed in order to show various trait patterns. Essentially, they involve placement of the individual a test scale for a number of characteristics. Thus, the individual's strong points and weak points may be noted from his or her position on a common scale for all traits.

Physical fitness is the ability of our body to carry out daily activity with little fatigue and with enough energy left for emergencies.

Anthropometry is the study of comparative measurement of the human bodies. A number of precision instruments are available for accurate, anthropometric studies. Such studies are taken by the doctors using, precise physical measurements and anthropometric instruments. It is the most useful anthropometric measurement, which relates to the body mass as its potential value is not only appreciated by the health personnel, but often by the parents for whom, it is a useful source of health education. The prevalence of protein caloric malnutrition is best indicated by weight deficiency. Height of an individual is another important anthropometric measurement, which sums up the linearity of the body. Height of a person is composed of legs, pelvis, trunk, head and face. These components of height are of importance to any study pertaining to the assessment of growth in different body proportion and for other general and specific purpose.

### Methodology

To achieve the purpose of the study, 20 long distance runners were selected at random as subject from Coimbatore district. The age of the subjects ranged from 18 to 28 years.

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**Selection of Variables and Test Items**

The following test items were selected for the study to collect relevant data.

**Table 1**

Physical fitness variables and the tests		
S. No	Variables	Test
1	Height	Using Stadiometer
2	Weight	Using Weighing machine
3	Arm strength	Military press (1RM)
4	Leg strength	Using leg dynamometer
Psychology variables and the tests		
S. No	Variables	Test (Questionnaires)
1	Personality dimension	Dimensional personality inventory
2	Competition anxiety	Sports competition anxiety inventory

**Results and Discussions**

The data were collected by using standardized tests of physical variables and standardized questionnaire of psychology variables. The collected data were analyzed and the results are shown by graphical representations. On the basis of the results obtained graphical representation of the data on dimensional profile of long distance runner’s physical and psychological variables were shown.

**Table 2:** Mean minimum and maximum of dimensional profile for long distance runners in physical and psychological variables

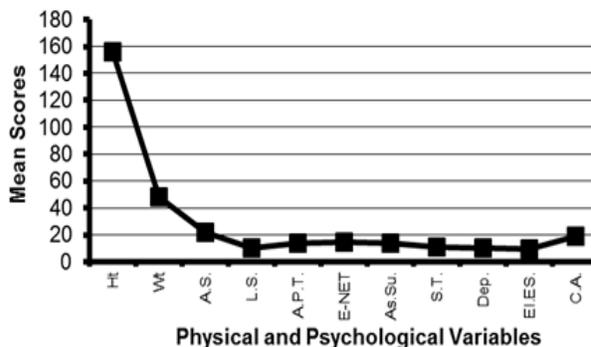
Variables	Mean	Minimum	Maximum
Height	156.1	144	163
Weight	48.05	38	60
Arm strength	21.9	17.5	29.5
Leg strength	10.4	5	15
Activity-passivity trait	14.4	9	20
Enthusiastic and non-enthusiastic trait	14.75	9	20
Assertive-submissive	13.7	7	18
Suspicious trusting	11.15	2	18
Depressive	10.2	0	18
Emotional instability and emotional stability	9.8	3	19
Competition anxiety	19.2	14	24

Table-II reveals that obtained mean value of height is 156.1cm with a minimum of 144cm and maximum of 163.cm. The mean value of weight is 48.05 kilograms with a minimum of 38 kilograms and a maximum of 60 kilograms. The mean value of arm strength is 21.9kg with (the unit of measurement along with the figures mentioned)a minimum of 17.5 and a maximum of 29.5. The mean value of leg strength is 10.4, with a minimum of 5 and a maximum of 15. The mean value of Activity-passivity trait is 14.4 with a minimum of 9 and a maximum of 20. The mean value of enthusiastic and non-enthusiastic trait is 14.75 with a minimum of 9 and a maximum of 20. The mean value of suspicious trusting is 1.15 with a minimum of 2 and a maximum of 18. The mean value of depressive-non-depressive is 10.2 with a minimum of 0 and a maximum of 18. The mean value of emotional instability and emotional

stability is 9.8 with a minimum of 3 and a maximum of 19. The mean value of competition anxiety is 19.2 with a minimum of 14 and a maximum of 24.

**Discussion on Findings**

The results are agree with the studies done by (Daniels J and Daniels N (1992), Nudel DB, (1989), Maresh CM, (1991), Hartung GH, and Farge EJ (1977), Frederickson and Moore (2004). The findings of the study are on par with the literature that relatively profile of long distance runners. The pre and Post Tests mean values of university men players on service performance is graphically represented in Figure 1



**Fig 1:** mean scores of physical and psychological variables for long distance runners is presented in figure

Graph I shows that the mean values of height, weight, arm strength, leg strength, and personality dimension (activity-passivity trait, enthusiastic and non-enthusiastic trait, assertive submissive, suspicions trusting, depressive- non depressive, emotional instability and emotional stability) competition anxiety were clearly defined as the dimensional profiles of long distance runners.

**Conclusions**

On the basis of the results obtained graphical representation of the data on dimensional profile of long distance runner’s physical and psychological variables were shown. Within the limitation of the present study the following conclusions are drawn.

1. The dimensional profiles of Coimbatore district long-distance runners have average level of height and weight in physical variables.
2. The dimensional profile of Coimbatore district long-distance runners have more arm strength in physical variables
3. The dimensional profile of Coimbatore district long distance runners have less activity – passivity trait in dimensional personality of passivity trait in dimensional personality of psychological variables.
4. The dimensional profile of Coimbatore district long distance runners have more enthusiastic and non-enthusiastic in dimensional personality of psychological variables.
5. The dimensional profiles of Coimbatore district long distance runners are more assertive-submissive in dimensional personality of psychological variables.
6. The dimensional profiles of Coimbatore district long-distance runners are more suspicious trusting in dimensional personality of psychological variables.
7. The dimensional profiles of Coimbatore district long distance runners have more emotional instability and

emotional stability in dimensional personality of psychological variables.

8. The dimensional profiles of Coimbatore district long distance runners have average level of competition anxiety.

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