A Comparative Study of Cardio respiratory Fitness between the Tribal and Non Tribal Adolescent Girls

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Abstract

Cardio respiratory fitness is related to an individual's ability to use the large muscles for prolonged period of dynamic, moderate-to-high intensity exercise. Analysis of cardio respiratory fitness is important because of its relations to health and wellness. Keeping in view this concept this study was framed to establish the relationship between cardio respiratory fitness level between tribal and non tribal adolescent girls. Forty female school students from Hoogly District were randomly selected as subjects and their age was between 13 and 19 years. The subjects were randomly assigned to two equal groups as Group- I (Tribal Adolescent girls) and Group II (Nontribal Adolescent Girls). Cardio respiratory Fitness level of each group was measured by Cooper 12 minutes run & walk test. To determine the significance of difference of cardio respiratory fitness of tribal and nontribal adolescent girls groups, "t" test was applied. The results of this study was concluded that tribal adolescent girls have better cardio respiratory fitness level by comparing with non tribal adolescent girls.

KEYWORDS: Physical Fitness, Cardio respiratory Fitness

INTRODUCTION:

Physical fitness is defined as "a set attributes that people have or achieve that relates to the ability to perform physical activity. Being fit is not defined only by what kind of activity you do, how long you do it, or at what level of intensity. While these are important measures of fitness, they only address single areas

Cardio respiratory endurance is the ability of the body's circulatory and respiratory systems to supply fuel and oxygen during sustained physical activity. To improve your cardio respiratory endurance, the activity like walking, swimming, or bicycling that keep the heart rate elevated at a safe level for a sustained length of time.

Cardio respiratory fitness is related to an individual's ability to use the large muscles for prolonged period of dynamic, moderate-to-high intensity exercise. Level of cardio respiratory fitness is dependent on the condition of the respiratory, cardiovascular and skeletal muscle system. Analysis of cardio respiratory fitness is important because of its relations to health and wellness.

The purpose of the study was to compare the cardio respiratory fitness level between tribal and non tribal adolescent girls.

METHODOLOGY:

Forty female school students from Hoogly District were randomly selected as subjects and their age was between 13 and 19 years. The subjects were randomly assigned to two equal groups as Group- I (Tribal Adolescent girls) and Group II (Nontribal Adolescent Girls). Cardio respiratory Fitness level of each group was measured by Cooper 12 minutes run & walk test. Scores were obtained by summing up of the number of completed laps and number of flags passed on the last lap by subjects.

To determine the significance of difference of cardio respiratory fitness level between tribal and non tribal adolescent girls, "t" test was applied.

RESULTS

Mean standard deviation, Standard Error and T-test of cardio respiratory fitness of tribal and nontribal adolescent girls group are shown here.

Subject	N	Mean	Std-Deviation	Std-Error Mean	T -Test
TRIBAL	20	1062.5	195.27	55.97	2.77
NONTRIBAL	20	907.5	156.62		

*Significance at 0.05 levels, Tab-T 0.05=2.000

For the purpose of the Study the level of significance was fixed at 0.05 level of confidence, which was deemed to be reasonable for the study.

DISCUSSION

Data were collected from tribal adolescent group (Group I) and non tribal adolescent group (group II). to find out mean difference the researcher was using T-Test to find out whether the mean differences were significant or not.

From the above table it is clear that the computed T-Value (2.77) is higher than tabulated value (2.000) at 0.05 level of confidence. So, we can say that the rural area adolescent girls were significantly better the cardio respiratory fitness level then the urban area adolescent girls. This finding supports the hypothesis.

The study was concluded that tribal area adolescent girls have better cardio respiratory fitness level by comparing with non tribal area adolescent girls.

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