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Influences of Functional Training on Selected Physiological Variables among Soccer Players

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Abstract

The purpose of the study was to find out the influences of functional training on selected physiological variables among soccer players. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of functional training among soccer players. For the present study the 30 male soccer players from Engineering Colleges in and around Karur district, Tamilnadu were selected at random and their age ranged from 18 to 25 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen football players each and named as Group 'A' and Group 'B'. Group 'A' underwent functional training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't test. The level of significance was set at 0.05. The functional training had positive influences on resting pulse rate and vital capacity among soccer players.

Keywords: Functional Training, Resting pulse rate, Vital capacity, Football.

Introduction

Functional training alludes to practice preparing programs intended to mimic the exercises and development designs that happen in a competitor's trademark action. Its motivation is to make preparing adjustments more particular and relevant. Functional training is a moderately novel type of particular preparing for wellness. Useful preparing endeavors to adjust or create practices which enable people to play out the exercises of everyday life all the more effectively and without wounds. Utilitarian preparing is all the more "certifiable" as far as preparing really mirroring a more extensive range of every day developments. "Functional" alludes to the execution of an activity, work, or action. Albeit initially created to counteract and halfway cure utilitarian and general engine weakening in more established grown-ups, the thought and idea of practical preparing is likewise broadly acknowledged in sports preparing and molding. Functional training is how much certain development will move into the real action of game. Useful preparing involves neural multifaceted nature and focal sensory system request. The higher the focal sensory system request the more practical development is there. The cerebrum which control strong development thinks as far as entire movement, not singular muscle. The essential objective of functional training is to move change accomplish in one development to upgrading the execution of another development by influencing the whole neuromuscular framework. Functional training is a technique for preparing that depends on setting up the body for certifiable difficulties, for example, balance, strength, turning, twisting, and lifting (Weiss,et al., 2010).

Football is a diversion which calls for strenuous, nonstop and exciting activity and in this manner, requests to the adolescent the world over. The aptitudes engaged with the diversion are basic, normal but then are exceedingly invigorating and fulfilling to any individual who partakes in the amusement. Football as it is observed today has experienced an enormous change since its introduction to the world. Of the considerable number of occasions in mankind's history the one to draw in the biggest crowd was neither an awesome political event nor a unique festival of some mind boggling accomplishments in the craftsmanship or science, yet basic ball game a football coordinate. In the event that we look at it all the more deliberately we would soon understand, that every football coordinate is a representative occasion of some intricacy. One of the best quality of the diversion is its straightforwardness. At its crudest level all that are required is a ball and an open space with a comment as an objective post. No other game is so effortlessly accessible thus promptly moving (Beim, 1997).

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Methodology

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influences of functional training on selected physiological variables among soccer players. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of functional training among soccer players. For the present study the 30 male soccer players from Engineering Colleges in and around Karur district, Tamilnadu were selected at random and their age ranged from 18 to 25 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen soccer players each and named as Group 'A' and Group 'B'. Group 'A' underwent functional training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't test. The level of significance was set at 0.05.

Table 1
Variables and Test

S.No	Variables	Tests
1	Resting pulse rate	Stethoscope
2	Vital capacity	Spirometer

Results

The findings pertaining to analysis of dependent 't' test between experimental group and control group on selected physiological variables among soccer players for pre-post test respectively have been presented in table 2 to 3.

Table 2
Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Functional Training Group (FTG)

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Resting pulse rate	74.12	72.07	2.05	1.89	0.96	13.14*
2	Vital capacity	4.12	4.58	0.46	0.89	0.17	12.18*

* Significant at 0.05 level

Table 2 shows the obtained 't' ratios for pre and post test mean difference in the selected variable of resting pulse rate (13.14) and vital capacity (12.18). The obtained ratios when compared with the table value of 2.14 of the degrees of freedom (1, 14) it was found to be statistically significant at 0.05 level of confidence. It was observed that the mean gain and losses made from pre to post test were significantly improved physiological variables namely resting pulse rate (2.05, $p<0.05$) and vital capacity (0.89, $p<0.05$) thus the formulated hypothesis is accepted.

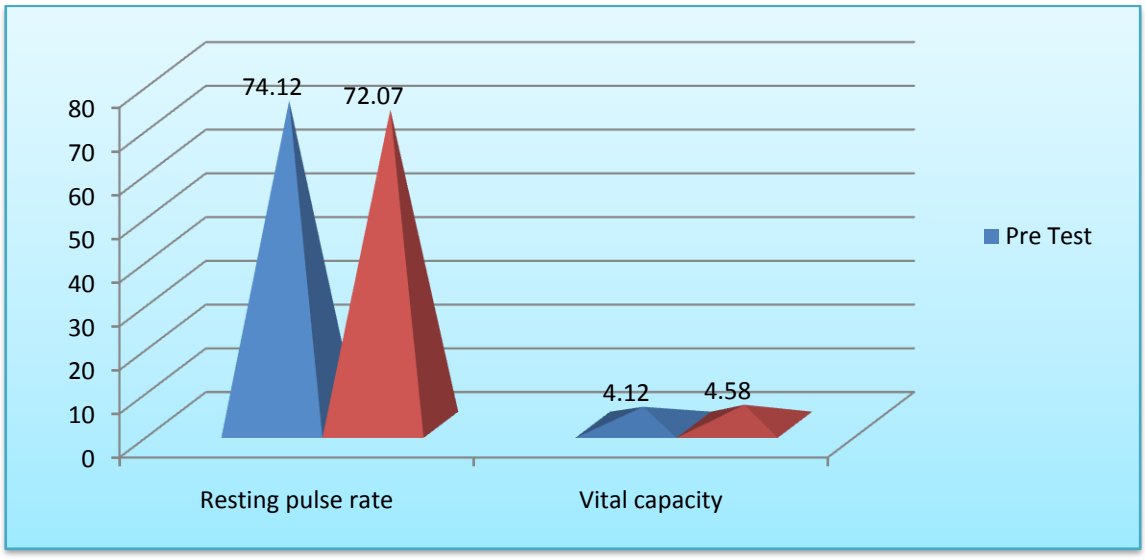

Figure I
Comparisons of Pre – Test Means and Post – Test Means for Experimental Group in Relation to Physiological variables

Table 3
Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Control Group (CG)

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Resting pulse rate	74.33	74.26	0.07	2.34	0.74	0.51
2	Vital capacity	4.21	4.26	0.05	0.35	0.22	0.87

* Significant at 0.05 level

Table 3 shows the obtained 't' ratios for pre and post test mean difference in the selected variable of resting pulse rate (0.51) and vital capacity (0.87). The obtained ratios when compared with the table value of 2.14 of the degrees of freedom (1, 14) it was found to be statistically significant at 0.05 level of confidence. It was observed that the mean gain and losses made from pre to post test were not significantly improved.

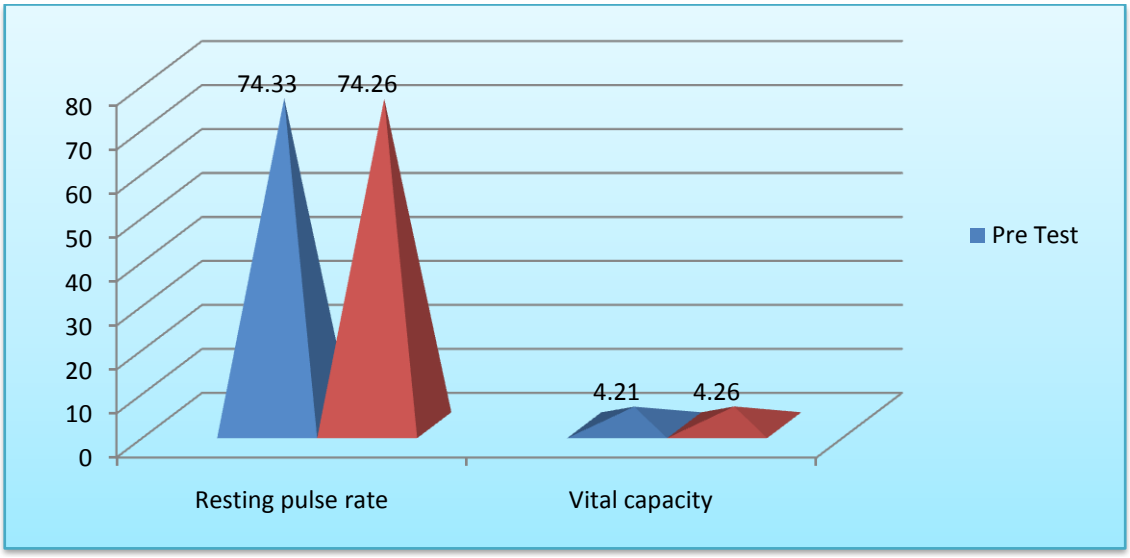

Figure II
Comparisons of Pre – Test Means and Post – Test Means for Control Group in Relation to Physiological variables

Conclusion

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. The functional training had positive influences on resting pulse rate and vital capacity among soccer players.

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