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Examination of the Changes on Selected Performance Parameters in Response to Circuit Training among Kabaddi Players

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Abstract

The purpose of the study was to examine the changes on selected performance parameters in response to circuit training among college kabaddi players. It was hypothesized that there would be significant differences on selected performance variables due to the effect of circuit training among college kabaddi players. For the present study, the 30 male college kabaddi players from Affiliated Colleges of Bharathidasan University in Tiruchirappalli jurisdiction, Tamil Nadu, were selected at random and their age ranged from 18 to 25 years. For the present study, pretest-posttest random group design which consists of control group and experimental group was used. Performance variables were assessed by subjective rating. The subjects were randomly assigned to two equal groups of 15 each and named as Group "A" and Group "B." Group "A" underwent circuit training and Group "B" has not undergone any training. The data were collected before and after 12 weeks of training. The data were analyzed by applying dependent "t"-test. The level of significance was set at 0.05. The circuit training had positive impact on knee hold and kicking among college kabaddi players.

Keywords: Circuit training, Kabaddi, Performance variables

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Introduction

Circuit training is a high-intensity, high difficulty kind of conditioning. Strength, endurance (both aerobic and anaerobic), flexibility, and coordination are all improved with it. Circuit training is a realistic strategy that requires some planning ahead of time, but it also requires coordination. It motivates athletes since it makes conditioning entertaining and demanding by pitting them against their teammates.[1,2] Circuit training is a series of exercises performed in a continuous sequence to develop as many aspects of physical fitness as possible, particularly endurance. In most cases, 6–12 stations are operational. The activities inside a lap of the circuit are chosen and sequenced with the continuous nature of the performance in mind. Circuit training is also a quick and easy approach to get some exercise. It maximizes the total amount of workout volume (sets, repetitions, and weight) accomplished in a given length of time. Exercises are completed in a row, and therefore, the time spent exercising is condensed (Puttaswamy and Govindaraj, 2016).[3,4]

Kabaddi is a sport in which two teams of 12 people compete against one other, with one team acting as raiders and the other as anti-raiders.[5,6] At a time, seven players will take the field, with the remaining five players being reserved. Since the 1990 Beijing Games, India's attempts to popularize Kabaddi have paid off handsomely, as the country has won all of the Asian Games gold medals.[7] When it comes to the game's tactics, there are two teams that play on opposite ends of the field. To score points, each team sends a "raider" into the other half.[8] During the raid, the raider who gets inside must touch any one of the other team's members and immediately dash back to his line, never stopping to catch his breath, and yelling the word "kabaddi." On the other hand, the members of the other team have to grab the raider down before he reaches his line (Prasad, 2002).[9,9]

Methodology

The purpose of the study was to examine the changes on selected performance parameters in response to circuit training among college kabaddi players. It was hypothesized that there would be significant differences on selected performance variables due to the effect of circuit training among college kabaddi players. For the present study, the 30 male college kabaddi players from Affiliated Colleges of Bharathidasan University in Tiruchirappalli jurisdiction, Tamil Nadu, were selected at random and their age ranged from 18 to 25 years. For the present study, pretest-posttest random group design which consists of control group and experimental group was used. Performance variables were assessed by subjective rating. The subjects were randomly assigned to two equal groups of 15 each and named as Group "A" and Group "B." Group "A" underwent circuit training and Group "B" has not undergone any training. The data were collected before and after 12 weeks of training. The data were analyzed by applying dependent "t"-test. The level of significance was set at 0.05.

Results

The findings pertaining to analysis of dependent "t"-test between the experimental group and control group on selected performance variables among college kabaddi players for pre-and post-test, respectively, are presented in Tables 1 and 2.

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Table 1: Significance of mean gains and losses between pre- and post-test scores on selected variables of circuit training group

S. No.	Variables	Pre-test Mean	Post-test Mean	Mean difference	Std. dev. (±)	σ DM	"t" ratio
1	Knee hold	3.71	7.60	3.89	1.49	1.01	3.27*
2	Kicking	3.80	7.90	4.10	1.39	0.54	6.11*

Table 2: Significance of mean gains and losses between pre- and post-test scores on selected variables of the control group

S. No.	Variables	Pre-test Mean	Post-test Mean	Mean difference	Std. dev. (±)	σ DM	"t" ratio
1	Knee hold	3.65	3.70	0.05	1.45	0.98	1.54
2	Kicking	3.70	3.73	0.03	1.15	0.58	1.41

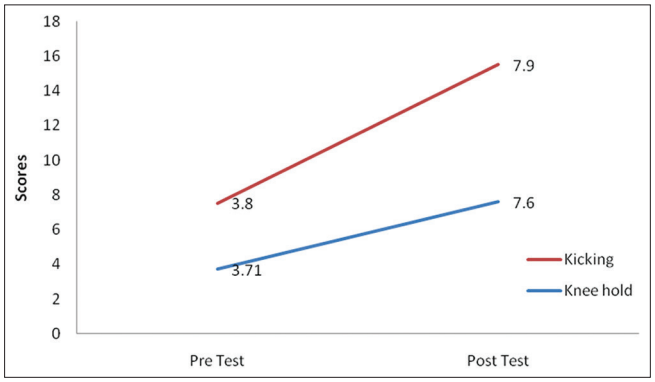

Figure 1: Comparisons of pre-test means and post-test means for the experimental group in relation to performance variables

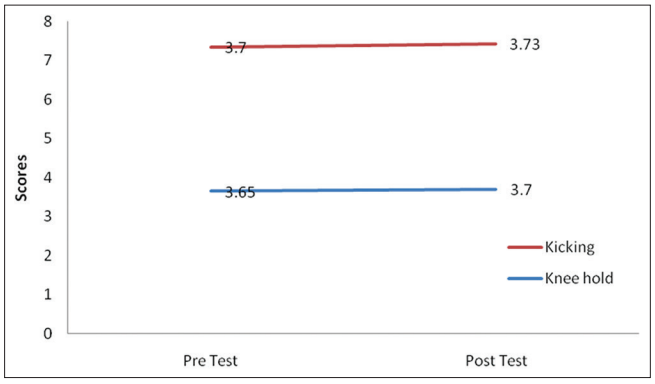

Figure 2: Comparisons of pre-test means and post-test means for the control group in relation to performance variables

An examination of Table 1 indicates that the obtained "t" ratios were 3.27 and 6.11 for knee hold and kicking, respectively. The obtained "t" ratios were found to be greater than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. Hence, it was found to be significant. The results of this study showed that statistically significant and explained its effects positively. The graphical representation of data is presented in Figure 1.

An examination of Table 2 indicates that the obtained "t" ratios were 1.54 and 1.41 for knee hold and kicking, respectively. The obtained "t" ratios were found to be lesser than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. Hence, it was found to be insignificant. The graphical representation of data is presented in Figure 2.

Conclusion

The circuit training had positive impact on knee hold and kicking among college kabaddi players.

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