
Impact of Tabata Training on Hematological Responses among College Women Kabaddi Players

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Abstract

The reason of the study was to discover the Impact of Tabata Training on Selected Hematological responses among college women Kabaddi players. forty subjects were selected from LDC college and AAC college, Madurai. The subject's aged between 18 to 24 years women kabaddi players. The selected subjects were divided into two groups with twenty subjects in each group selected randomly Tabata Training group and control group. The six weeks training periods of experimental groups are involved five days per week. Control group did not undertake any training other than their regular work. To attain the significance difference in between the means on the criterion variables of correlated 't' ratio was apply. This study it processes with proper statistical technique. The data result is obtained 't' values are tested at 0.05 levels.

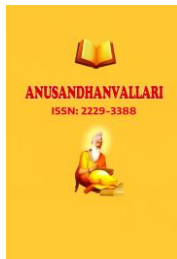
Keywords: Tabata Training, Hematological responses.

Introduction

The modern kabaddi game was played all over India and some parts of south Asia from 1930. The first known framework of the rules of kabaddi as an indigenous sport of India was prepared in Maharashtra in the year 1921 for kabaddi competitions on the pattern of Sanjeevani and Gemini in a combined form. Thereafter a committee was constituted in the year 1923, which amended the rules framed in 1921. The amended rules were applied during the all-India kabaddi tournament organized in 1923. Kabaddi is basically a combative sport, with seven players on each side; played for a period of 40 minutes with a 5 minutes break (20- 5- 20). The core idea of the game is to score points by raiding into the opponent's court and touching as many defense players as possible without getting caught on a single breath.

Tabata Training

Tabata training is a high-intensity interval training (HIIT) workout, featuring exercises that last four minutes.



How to train in Tabata?

The Tabata training follows a 2:1 ratio rule where 20 seconds of extensive exercise is followed by a 10-second rest or recovery. This interval needs to be followed for a non-stop 4 minutes, which makes up one round. You can do 4 rounds with a 1-minute break in between each round to complete a total of 20 minutes of workout. You should always start with a low level of intensity and upgrade the difficulty level as your body becomes used to it. Some tips related to Tabata training are:

- Always perform warm-up exercises before Tabata training
- Begin with low-intensity exercise with intermittent rest of 20-30 seconds
- Monitor your intensity accumulation. You may sometimes reach a maximum intensity that may cause injury due to sloppiness in muscles

Methodology

Selection of Subject

The reason of the study was to discover the Impact of Tabata Training on selected Hematological responses among college women kabaddi players. Forty subjects were selected from LDC college and AAC college, Madurai. The subject's aged between 18 to 24 years women kabaddi players. The selected subjects were divided into two groups with twenty subjects in each group selected randomly Tabata Training and control group. The six weeks training periods of experimental group are involved five days per week. Control group did not undertake any training other than their regular work. To attain the significance difference in between the means on the criterion variables of correlated 't' ratio was apply. This study it processes with proper statistical technique. The data result is obtained 't' values are tested at 0.05 levels.

Selection of Variables

Hematological responses -Lab test

Statistical Techniques

The collected data on Hematological responses were statistically examined to the test. The various hypothesis formulated by the researcher for comparison 't' ratio was used. 't' ratio was the difference between the mean, standard deviation and standard error of the difference between the means.

Level of Significance

For testing the significance of the differences between pre and post test means of the control and experimental groups 0.05 level of significance was fixed.

Hemoglobin

The results of the dependent 't'-test on the data obtained for hemoglobin of the subjects in the pre-test and post-test of the experimental and control groups have been analyzed and presented in Table 1.

TABLE – 1

THE SUMMARY OF MEAN AND DEPENDENT 't' - TEST FOR THE PRE AND POST TESTS ON HEMOGLOBIN OF TABATA TRAINING GROUP AND CONTROL GROUP

	TTG	CG
Pre-test mean	13.22	13.25
Post-test mean	14.03	13.27
't'-test	12.73*	0.31
Magnitude of Improvement	6.12%	0.15%

** Significant at 0.05 level.*

(Hemoglobin scores in g/dl)

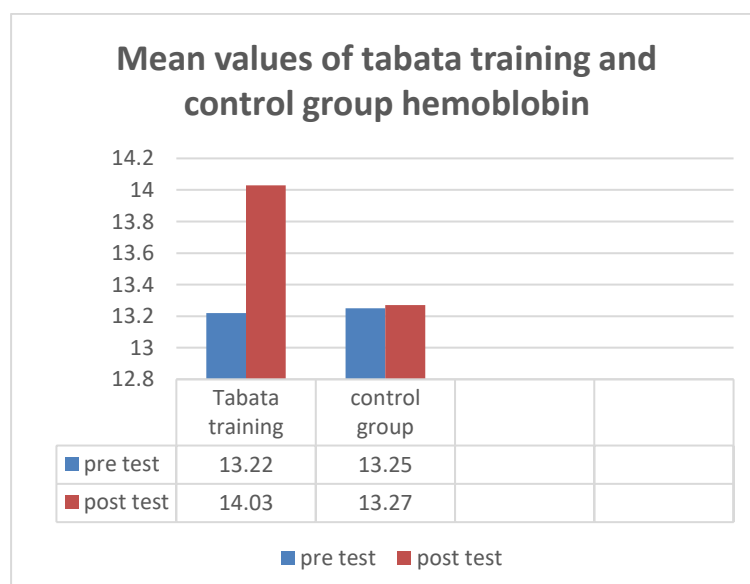
(Table value required for significance at 0.05 level for 't'-test with df 19 is 2.09)

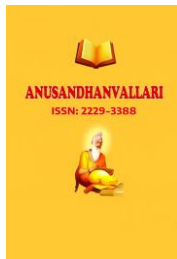
From table 4.22 the dependent 't' test values, on hemoglobin between the pre and post test means of tabata training group and control group are 12.73 and 0.31 respectively. Since the obtained 't'-test values of the experimental groups are greater than the table value 2.04 with df 19 at 0.05 level of confidence it is concluded that tabata training group had registered significant reduction on hemoglobin and in case of control group the obtained 't' value 0.31 is failed to reach the significant level.

From the table it is also observed that the magnitude of improvement (MI) of hemoglobin due to the influence of tabata training group and control group are 6.12% and 0.15% respectively. It indicates that the tabata training had registered better percentage of reduction in hemoglobin.

FIGURE-2

MEAN VALUES OF TABATA TRAINING AND CONTROL GROUPS ON HEMOGLOBIN





Discussion on the Findings

The result of the study indicated the experimental group tabata training had significantly improved the hemoglobin when compared to the control group.

From the result of the present investigation, it is also concluded that the significant difference exists between experimental and control group in developing the variables.

The outcome of this study result with the hypothesis of the analysis. Interest on the part of the subject used in this study to improve their tabata training might also account for the result and this inference is supported by the further fact that all previous studies of similar nature were conducted on tabata training. The six weeks period for the experimental group seen to be generate applicable result.

The results of the study reveal that there was a significant difference found among college women kabaddi players on hematological responses hemoglobin also when comparing the mean values.

Conclusions

On the basis of the limitations and the statistical analysis of the data, the following conclusions were drawn from the result.

1. After six weeks of training, it was observed that a significant improvement in kabaddi players in hematological responses hemoglobin.
2. The control group shows and insignificant improvement of 0.05 level of confidence.

Reference

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