



EFFECTS OF AEROBIC EXERCISES TRAINING ON MENTAL TOUGHNESS AMONG TEENAGER ATHLETES OF LUCKNOW DISTRICT

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ABSTRACT :

Purpose of the study: The main purpose of this study was to find the effects of aerobic exercises training among teenagers athletes of Lucknow district. It was hypothesized that there would be significant difference on mental toughness due to training of 08 weeks of aerobic exercises.

Research Methodology: The present study was conducted on 100 teenager athletes selected randomly from Lucknow district, Lucknow Uttar Pradesh. The age of the subjects were ranging between 16-19 years to assess the selected psychological variable mental toughness. To assess the mental toughness, questionnaire (1995) prepared by Allen Goldberg was administered. The questionnaire was comprised of 60 questions based on handling pressure, concentration, mental rebounding and winning attitude. Each question has two possible responses i.e. true and false. With the help of the questionnaire related to psychological variable necessary data were collected. The test was conducted on 100 teenager athletes to collect data for psychological variable.



The collected data were analyzed using 't' test statistical technique at **0.05 level of significance**.

In the present study pre-test and post test scores were taken, to compare the effects of aerobic exercises training on psychological variable mental toughness among teenager athletes. 50 subjects were assigned randomly to both the group.

The training for experimental group was administrated at Lucknow. The experimental group met six days in a week for a period of 08 weeks. Each experimental session was of 45 minutes duration. The training commenced with different aerobics exercises for the experimental group.

With the help of the questionnaire related to psychological variable mental toughness necessary data were collected. The test was conducted on 100 teenager athletes to collect data for psychological variable.

The data was analyzed by applying **Analysis of Co-Variance (ANCOVA)** to find out the effects of aerobic exercises training on Psychological Variable among teenagers athletes. **The level of significance was set at 0.05.**

Conclusions: The results revealed that the experimental group trained by aerobic exercises for 08 weeks program has shown comparatively more positive and mentally tougher as compare to control group in case of teenager athletes. It also seems that aerobic exercises promote quality of life.

The better performance of experimental group as compare to the control group may be due to the fact that the experimental group has taken a systematic and progressive aerobic exercises (cycling, running, walking, dancing and cross country running) training program (six days a week) for duration of 08 weeks.

KEYWORDS : Teenagers, Mental Toughness, Aerobic and Rhythmic.

INTRODUCTION

Aerobic means 'With Oxygen'. During aerobic work the body is working at a level that the demands for oxygen and fuel can be met by the body's intake. The American College of Sports Medicine (ACSM) defines aerobic exercise as "Any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature". These exercises make us breathe deeper and take more air into the lungs. All the aerobic activities are done with lower intensity and for long durations. These exercises include cycling, dancing, jogging, rowing, skating, swimming and walking. Aerobic exercises lead to the development of endurance. Aerobic activity has many health benefits. It increases stamina, fitness and strength. Aerobic exercises reduce the risk of obesity, heart disease, high blood pressure, type 2 diabetes and certain type of cancer. It also strengthens the heart. Studies show that the people who participate in regular aerobic exercise live longer than those who don't exercise regularly. Besides physical benefits, aerobic exercise can also contribute to improvements in mental health. Many researchers have proved that aerobic exercise performed between three and five times per week is beneficial to mental health and well being. According to Shamus and Cohen (2009), there is a strong direct connection between physical health and mental health so that either of them may cause a remarkable impact on the other. Aerobic exercises may also be a factor in reducing anxiety and depression.

Considering the role of Psychology variable, the present study was undertaken.

RESEARCH METHODOLOGY:

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The data was analyzed by applying **Analysis of Co-Variance (ANCOVA)** to find out the effects of aerobic exercises training on Psychological Variable among teenager athletes. **The level of significance was set at 0.05.**

RESULTS AND DISCUSSIONS

The results pertaining to analysis of co-variance between Experimental group and Control group on psychological variable among teenager athletes for pre and post tests respectively have been presented in table 1.

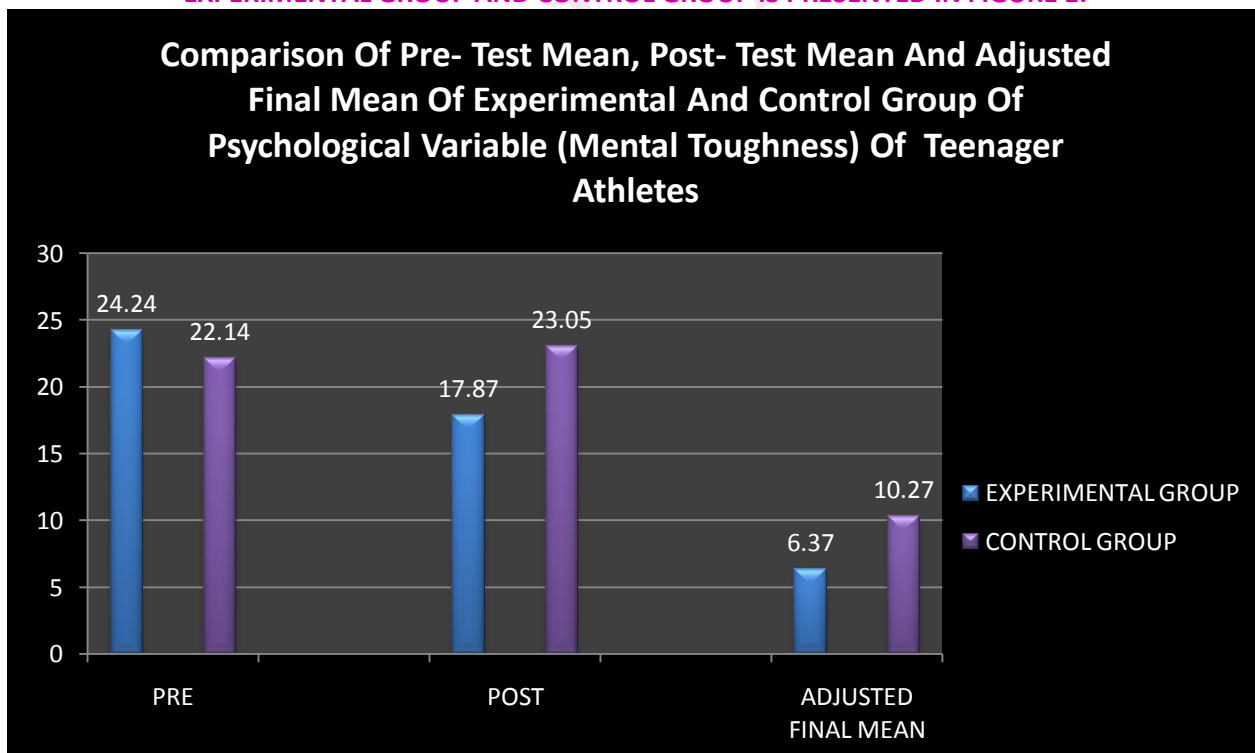
TABLE 1
ANCOVA BETWEEN EXPERIMENTAL GROUP AND CONTROL GROUP ON PSYCHOLOGICAL VARIABLE (MENTAL TOUGHNESS) AMONG TEENAGERS ATHLETES

<i>Sources of Variation</i>	<i>Degree of Freedom</i>	<i>Sum of Squares YX</i>	<i>Mean Sum of Squares YX</i>	<i>F- Value</i>
Treatment Group Means	2-1 =1	653.35	653.35	400.50*
Error	100-2-1= 97	138.44	1.21	
Total	98			

*Significant F.05 (1,97) = 3.94

Table No.1 revealed that the obtained 'F' value of 400.50* was found to be highly significant at 0.05 level with 1,97 degree of freedom as the tabulated value of 3.94 was required to be significant at 0.05 level with 1,97 degree of freedom. The same table indicated that there was a significant difference in adjusted means of selected psychological variable (Mental Toughness) among teenager athletes between experimental group and control group.

GRAPHICAL REPRESENTATION OF MEAN VALUE OF PRE TEST AND POST TEST OF MENTAL TOUGHNESS OF EXPERIMENTAL GROUP AND CONTROL GROUP IS PRESENTED IN FIGURE 1.



CONCLUSIONS:

The results revealed that the experimental group trained by aerobic exercises for 08 weeks program has shown comparatively more positive and mentally tougher as compare to control group in case of teenager athletes. It also seems that aerobic exercises promote quality of life.

The better performance of experimental group as compare to the control group may be due to the fact that the experimental group has taken a systematic and progressive aerobic exercises (cycling, running, walking, dancing and cross country running) training program (six days a week) for duration of 08 weeks.

RECOMMENDATIONS:

1. Similar study may be undertaken to find out the effect of aerobic exercises training on Psychology variables between athletes and non athletes.
2. Similar Study may be undertaken to find out the effect of aerobic exercises training on Psychological variables among middle age athletes.
3. Similar Study may be undertaken to see the effect of aerobic exercises training on other variables like depression, motivation and achievement etc. among different age group of men and women.
4. Similar study may be undertaken to find out the effect of aerobic exercises training on Psychology variables between female athletes and non female athletes.

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