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EFFECTS OF AEROBIC TRAINING ON MENTAL TOUGHNESS AMONG YOUTH ATHLETES

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ABSTRACT :

The main purpose of this study was to find the effects of aerobic training among youth athletes of Allahabad district. It was hypothesized that there would be significant difference on mental toughness due to 08 weeks of aerobic training. 100 youth athletes selected randomly from Allahabad district, Allahabad Uttar Pradesh. The age of the subjects were ranging between 16-19 years to assess the selected psychological variable mental toughness. 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 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 Allahabad. 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 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 training on Psychological Variable among youth athletes. The findings indicated that in the case of young athletes, the study group conditioned by aerobics for the 08-week program was relatively more optimistic and emotionally better than the control group. It also suggests aerobics are improving quality of life. The increased performance of the experimental group as opposed to the control group could be due to the fact that the experimental group has followed a rigorous and comprehensive aerobic fitness regimen (cycling, biking, walking, dancing and cross country racing) for a period of 08 weeks (6 days a week).

KEYWORDS : *Youth, 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 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 include cycling, dancing, jogging, rowing, skating, swimming and walking. Aerobic lead to the development of endurance. Aerobic activity has many health benefits. It increases stamina, fitness and strength. Aerobic 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 may also be a factor in reducing anxiety and depression. Considering the role of Psychology variable, the present study was undertaken to investigate the effects of aerobic training among youth athletes of Allahabad district.

RESEARCH METHODOLOGY:

The present study was conducted on 100 teenager athletes selected randomly from Allahabad district, Allahabad Uttar Pradesh. The age of the subjects were ranging between 16-19 years to assess the selected psychological variable mental toughness. A questionnaire (1995), designed by Allen Goldberg, was conducted to test the mental resilience. The questionnaire consisted of 60 questions based on work management, attention, emotional recovery and gainful mindset. Any question has two potential answers, that is 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. Pre-test and post-test scores were taken in the present study to assess the effects of aerobic exercise in youth athletes on psychological component mental toughness. 50 Issues were equally allocated to both classes. Experimental community preparation was conducted at Allahabad. 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 for the experimental group. The requisite data were collected with the aid of the questionnaire relating to psychological component mental toughness. The study was carried out on 100 young athletes to gather Psychological Predictor results by applying Co-Variance Analysis (ANCOVA) to assess the impact of aerobic training on Psychological Variable among adolescent athletes.

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
COMPARISON EXPERIMENTAL GROUP AND CONTROL GROUP ON MENTAL TOUGHNESS AMONG YOUTH ATHLETES

Sources of Variation	Degree of Freedom	Sum of Squares YX	Mean Sum of Squares YX	F- Value
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

The above finding 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.

CONCLUSIONS:

The results revealed that the experimental group trained by aerobic 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 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 (cycling, running, walking, dancing and cross country running) training program (six days a week) for duration of 08 weeks. From the flinging of the study this is recommended that similar study may be undertaken to find out the effect of aerobic training on Psychology variables between athletes and non athletes. Similar Study may be undertaken to find out the effect of aerobic training on Psychological variables among middle age athletes. Similar Study may be undertaken to see the effect of aerobic training on other variables like depression, motivation and achievement etc. among different age group of men and women. Similar study may be undertaken to find out the effect of aerobic training on Psychology variables between female athletes and non female athletes.

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