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EFFECT OF WATER AEROBIC EXERCISES AND AEROBIC EXERCISE ON VO_2 MAX PARAMETER AMONG COLLEGE MEN STUDENTS

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ABSTRACT

The motivation behind the present review was to research the impact of water cardio respiratory endurance and oxygen consuming activities on VO_2 max parameter among school men understudies. To accomplish the reason for the review thirty school men understudies were chosen from Erode in the year 2016-17. The subject's age ranged from 18 to 25 years. They chose players were isolated into three equivalent gatherings comprises of 10 men understudies each specifically test aggregate I, exploratory gathering II and control gathering. The test bunch I experienced water vigorous exercise and trial assemble II experienced oxygen consuming activities for a month and a half. The control gathering was not partaking in any activity over the span of the review. The reliant variable VO_2 max was taken as standard factors and they were tried by utilizing cooper VO_2 max test for this review .Pre-test was taken before the activity time frame and post-test was measured instantly after the a month and a half of preparing period. Factual procedure "f" proportion was utilized to break down the methods for the pre-test and post test information of test gatherings and control gathering. The outcomes uncovered that there was a huge distinction found on the paradigm factors.

KEYWORDS: *Water aerobic exercises, Aerobic exercises, Vo2 max, Pre Test and Post Test.*

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INTRODUCTION

Cardio-Respiratory Endurance

As per Bucher (1983) oxygen consuming activity is any physical movement that requires the heart rate to reach no less than 60% of the maximal heart rate for an augmented timeframe. Likewise it is a movement that can be supported for an augmented timeframe without building up an oxygen deficiency. The principle target of a high-impact practice program is to expand the most extreme measure of oxygen that the body can handle inside a given time. This is called "High-impact limit". It is needy upon a capacity to ¹ quickly inhale a lot of air, ² compellingly convey substantial volumes of blood and ³ adequately convey oxygen to all parts of the body. [4]Lack of participation in a regular activity programme may result in a debilitative cycle. To put it plainly, it relies on effective lungs, a capable heart, and a decent vascular framework. [5]There is no standard submaximal measurement of cardiorespiratory reserve that provides generally acceptable results Since it mirrors the states of these crucial organs, [6]the combined associations and relative contributions of leisure-time physical activity and cardiorespiratory fitness withthe high impact exercise limit is the best record of general physical wellness.

Water Aerobics

Water high impact exercise (water vigorous exercise, sea-going wellness, water wellness, water fit) is the execution of oxygen consuming activity in genuinely shallow water, for example, in a swimming pool. Done for the most part vertically and without swimming ordinarily in abdomen profound or more profound water, it is a sort of resistance preparing. Water vigorous exercise is a type of high-impact practice that requires water-submerged members. Most water vigorous exercise is in a gathering wellness class setting with a prepared proficient instructing for 60 minutes. The classes concentrate on high-impact perseverance, resistance preparing, and making a pleasant environment with music. Distinctive types of water vigorous exercise include: water high impact exercise, and water run. While like land high impact exercise, in that it concentrates on cardiovascular preparing, water vigorous exercise [7]commensurate with an aerobic training effect because the resistance to movement increases with speed in water that it includes the part of water resistance and lightness. In spite of the fact that heart rate does not increment as much as in land-based high impact exercise, the heart is working similarly as hard and submerged exercise really draws more blood to the heart. Practicing in the water is vigorous, as well as quality preparing focused because of the water resistance Moving your body through the water makes a resistance that will initiate muscle gatherings [8]and deep water running may serve as an effective training alternative to landbased running for the maintenance of aerobic performance. Hydro heart stimulating exercise is a type of a vigorous exercise that requires water-submerged members.

MATERIALS AND METHODS

The motivation behind the present review was to explore the impact of water Cardio respiratory endurance and vigorous exercise on the **VO_2 max** parameter of school men competitors. The accomplish this review was haphazardly chosen forty five school men understudies from Erode locale swimming pool relationship amid the year 2016-17 and their age gone from 18 to 25 years. The chosen subjects (N=45) were isolated into three gatherings similarly and arbitrarily. Forty five subjects from school men understudies were haphazardly chosen and they were allocated into three equivalent gatherings. Each gathering comprised of fifteen subjects. Of which Experimental Group I experienced Water oxygen consuming activities (WAEG), Group II experienced Cardio respiratory endurance activities (Aerobic Exercises) (AEG) and Group III gone about as Control Group (CG). The two test gatherings were treated with their individual preparing for one hour for each day for three days seven days for a time of a month and a half. Water aerobic exercises group performed 10 drills namely toning arms, jumping jacks, side stretch, total body stretch, standing kick backs, leg adduction and abduction, crunch and floating on water. Aerobic exercises group performed 10 drills namely v step, turn step, over the top, L step, basic straddle step, side to side, double step side, knee kick, kick forward, kick sideward. This aqua aerobics exercises group and aerobic exercises group starts with 3 set of 12-10 repetitions in the first two weeks and progressed to 4 set of 10-8 repetitions in the second two weeks and 5 sets of 8-6 repetitions in the last two weeks. 30 sec rest was given in between the sets. As the intensity start with 60% for first four weeks, 10% of intensity was increased for every two weeks. The subjects of all the three groups were tested on VO_2 max prior to and after the training period. To ascertain VO_2 max was used and accordingly cooper VO_2 max test was administered mean value count by ml/min/kg. [99]The values expected on testing could be estimated from the duration of exercise.

Statistical Technique

The significance of the difference among the means of experimental group was found out by pre-test. The data were analyzed by using Analysis of Covariance (generally known as ANCOVA) technique at .05 levels as confidence. Analysis was performed using SPSS 20.0 (SPSS Inc Software).

RESULTS & INTERPRETATIONS

Table 1
Means Values for water aerobic exercises Group, Cardio Respiratory Endurance and Control Group on Vo2 Max
(Cooper vo2 max test Mean value count by ml/min/kg)

Test	Water aerobic exercises	Cardio respiratory endurance	Control Team	Source of varaiance	Sum of Square	Df	Mean Square	F Ratio	Table value
PTM	33.56	32.89	33.066	Between	3.711	2	1.856	.691	3.35
SD	2.02	1.50	1.29	Within	112.795	42	2.686		
PT	36.57	36.08	33.01	Between	112.035	2	56.017	32.03*	3.35
SD	1.36	1.22	1.37	Within	73.486	42	1.75		
APTM	36.42	36.20	33.05	Between	105.923	2	52.962	39.26*	3.36
				Within	55.32		1.349		

Significant .05 level of confidence

The Table 1 demonstrated that the pre-test mean esteems on vo2 max for water oxygen consuming activities gathering, cardio respiratory endurance gathering and control gathering are 33.56, 32.89 and 33.066 individually. The result of "F" proportion 0.691 for pre-test mean was not as much as the table esteem 3.35 for df 2 and 42 required for importance at 0.05 level of certainty on vo2 max. The post-test mean esteems on vo2 max for water oxygen consuming activities gathering, Cardio respiratory endurance gathering and control gathering are 36.57, 36.08 and 33.01 individually. The result of "F" proportion 32.03* for post-test mean was more noteworthy than the table esteem 3.35 for df 2 and 42 required for criticalness at 0.05 level of certainty on vo2 max . The adjusted post-test methods for water oxygen consuming activities gathering, Cardio respiratory endurance gathering and control gathering are 36.42, 36.195 and 33.053 individually. The got "F" proportion 39.26* for adjusted post-test mean was more noteworthy than the table esteem 3.36 for df 2 and 41 required for centrality at 0.05 level of certainty on vo2 max. Since the got "F" proportion esteem was critical further to discover the matched mean distinction, the Scheffe's post hoc test was utilized and exhibited in table 2

Table 2
(Cooper vo2 max test Mean value count by ml/min/kg)

Means			Mean Difference	Required CI
Aqua aerobic exercises	Aerobic exercises	Control Group		
36.42	36.195	-	.225	1.07
36.42	-	33.053	3.367*	1.07
-	36.195	33.053	3.142*	1.07

Significant 0.05 level of confidence

The Table 2 demonstrates that the adjusted post-test mean contrast in vo2 max between water aerobic gathering and oxygen consuming activities gathering is .225 it is critical at 0.05 level of certainty and demonstrated there was an inconsequential change. Water oxygen consuming activities gathering and control gathering is 3.367* it is huge at 0.05 level of certainty and demonstrated there was a huge change. Oxygen consuming activities gathering and control gathering is 3.142* it is critical at 0.05 level of certainty and demonstrated there was a huge change. Henceforth, there was critical distinction amongst control and test bunches in vo2 max among school men understudies. The after effects of the review demonstrated that there were a critical contrast between water aerobic gathering and control gathering, oxygen consuming activities gathering and control assemble on vo2 max.

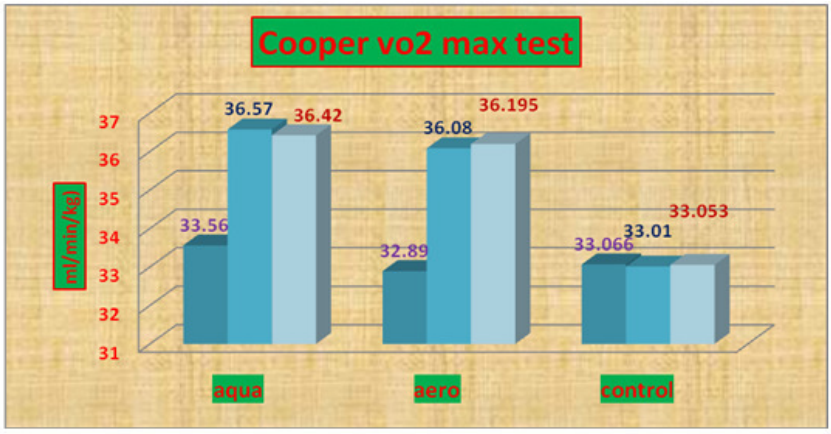

Figure 1
Bar diagram for Water aerobic exercises Group, Aerobic exercises Group and Control Group on VO_2 max

DISCUSSION OF FINDING

The Bar diagram of Figure 1 illustrates that the investigator was convinced with the results that the group training in VO_2 max with the aqua aerobic exercises and aerobic exercises improve VO_2 max. The training given to the experimental group with aqua aerobic exercises and aerobic exercises had an influence on the experimental group and had shown improvement in VO_2 max than the control group in the final test. The training given to the experimental group was planned by the investigator in consultation with his guide and with great care. The investigator felt that anyone could become good athletes if he has good VO_2 max.

CONCLUSION

There was a significant improvement in vo2 max on college men students. However the improvement was in favour for experimental groups namely water aerobic exercises and aerobic exercises compare better than the control group due to six weeks workout. The progress was in favour for experimental groups namely water aerobic exercises compare better than the aerobic exercises and control group due to six weeks of training programme on VO_2 max. The improvement was in favour for experimental groups namely aerobic exercises compare better than the control group due to six weeks of training programme on VO_2 max.

CONFLICT OF INTEREST

Conflict of interest declared none.

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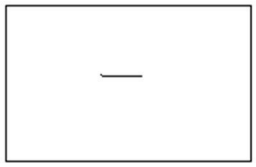

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