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Effects of Isolated and Combined Strength and Yogic Programme on Corporeal, Physiological and Skill Performance Variables Among College Cricket Players

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Abstract: Cricket performance is known to be influenced by skills to overall development. Present, training sessions typically involve fielding-specific drills and conditioning exercises. Scientific evidence for inclusion of a comprehensive yoga involvement in daily training and exercise sessions remains unknown. The present explored the effects of isolated and combined strength andyogic programme on corporeal, physiological and skill performance in cricket players. The study were conducted among60 male college cricket player aged 18 to 25 years. The fitness and skill performance was evaluated to physical fitness variables as speed, physiological variables VO_2 MaxSkill Performance Skills cricket batting before the training and after 8 weeks of training. The subjects were randomly assigned into four groups, namely strength training group, yogic training group, combined strength and yogic training and control group. Statistically significant improvements in baseline scores in speed, physiological variables VO_2 Max Skill Performance Skills cricket batting were comparable between the three groups of college cricket players. Speed improved by 6.68 in strength group, 6.83 in the yoga group 6.78 combined strength and yoga group 73.26in the control group. VO_2 Max improved by 74.03in strength group, 72.20in the yoga group 6.78 combined strength and yoga group 69.89in the control group. Batting ability improved by 8.05in strength group, 6.28in the yoga group 7.33 combined strength and yoga group 4.98in thecontrol group additional research on long-duration intervention in elite players may help to establish the role of yoga in conventional cricket-batting ability for training.

Key words: Physical fitness, strength training, yogic training, cricket, VO_2 Max

1. Introduction

Sport performance is the manner in which sport participation is measured. Sport performance is a complex mixture of biomechanical function, emotional factors, and training techniques. When an athlete and the coach can isolate areas on which to focus in training, the ultimate result is likely to be improved. Body proportions, skills training, strength, flexibility and endurance. These five factors will influence what sport you play, what position you play and how good you can be at either. Each of these factors may individually or as a group affect your sport performance.

Cricket is a team sport played using a bat and ball on an oval-shaped outdoor arena. Duringthe course of a cricket game we experience long rest intervals with short bursts of high intensity. As a result, specific components of fitness are essential for a high-level of cricket performance. Cricket is a sport that generates a broad range of reaction from sports fans. Among those who are apart of more action-packed athletic traditions, cricket is variously seen as a boring, tedious game.

In the present day the game of cricket has developed to such an extent that millions of people take part and many more around the world take an interest through the media to watch the game. Teaching, training and coaching in cricket are essentially an educational process. The cricketer is supervised and educated by the coach, trainer or physical education teacher. In cricket, offensive (batting) principles include scoring runs, avoiding getting out or defending the wicket (staying in), and hitting into space to achieve these offensive goals.

2. Methodology

The Methodology for the present investigation is on the effects of isolated and combined strength and yogic programme on corporeal, physiological and skill performance variables among inter collegiate cricket players**.** The purpose of study 60 male cricket students selected fromvarious colleges. Their age ranges between 18 to 25 years .the subjects were randomly assigned into four groups, namely experimental group I (strength training), Experimental group II (yogic training), experimental group III (strength and yogic training) and control group. In order to ensurethe full cooperation from the subjects, the scholar had a meeting with them and explained the purpose of the study. It was made clear by explanation in order to ascertain that there was no ambiguity among the players regarding the effort, which they had to put in for the successful completion of this study. Experimental group I participated for a period of 8 weeks resistance training with game specific training. Experimental group II participated for a period of 8 weeks yoga practices with game specific training. Experimental group III for a period of 8 weeksresistance and yoga training with game specific training and Control group only game specific training. The subjects were tested on selected criterion variables physical fitness variables as speed, physiological variables VO2 Max and Skill Performance Skills cricket batting before the training and after 8 weeks of training.

3. Training Procedure

Experimental Group-I underwent strength training, experimental Group-II underwent yogic training and experimental Group-III underwent combined training respectively. The control group was not exposed to any specific training / conditioning programme. The experimental treatments namely strength t training, yogic training and combined training was administrated for duration of 82 weeks and the number of session per week was confined to three alternative days and each session lasted 60 minutes.

4. Statistical Technique

The collected data from the three groups prior to and after the experimental treatments on selected physical, physiological and performance variables were statistically analyzed by using thestatistical technique of analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, Scheffe's test was followed as a post hoc test to determine which of the paired means difference was significant. In all the cases 0.05 level of confidence was fixed as a level of confidence to test the hypotheses.

Table 1: Analysis Of Covariance Among Strength Training Group I, Yoga Training Group II, Combined Training Group III And Control GroupOn Speed

	Strength Training Group	Yoga Training Group	Combined Training Group	Control Group	Source of Variance	Sum of square	Df	Mean square	F-value
Pre test Mean	7.04	7.05	7.02	7.06	Between	0.13	3	0.004	0.16
					Within	1.496	56	0.027	
Post test Mean	6.68	6.84	6.76	7.03	Between	1.019	3	0.340	14.12*
					Within	1.347	56	0.024	
Adjusted post mean	6.68	6.83	6.78	7.01	Between	0.859	3	0.286	67.21*
					Within	0.234	55	0.004	

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Fig 1: The Adjusted Post Test Mean Values Of Experimental Group I, Experimental Group II, Experimental Group III And Control GroupOn Speed

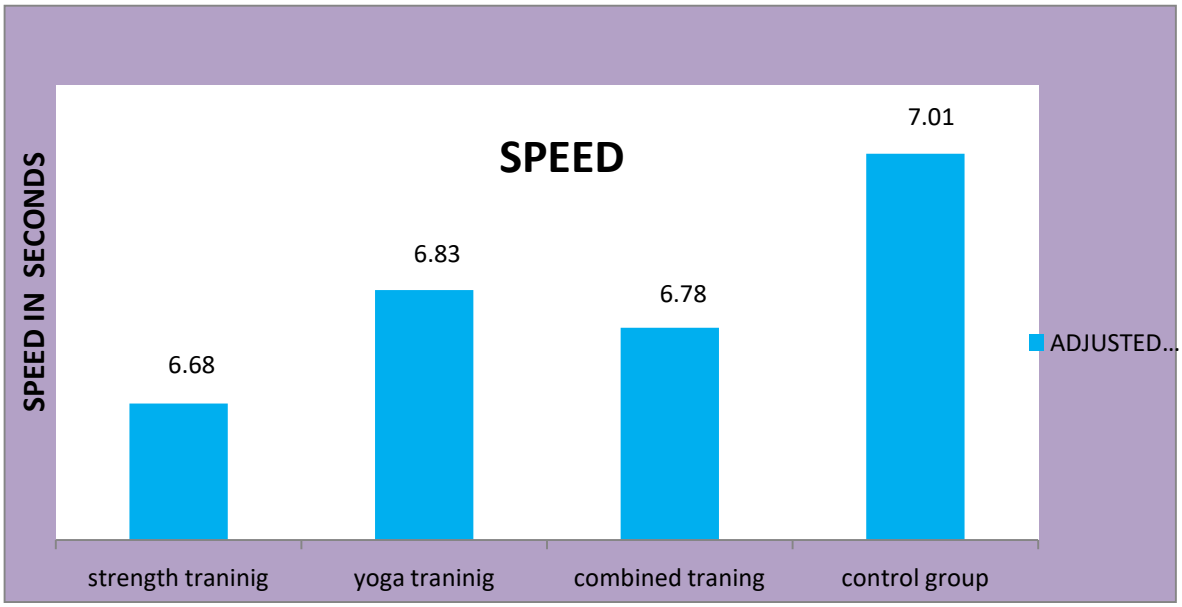


Table 2: Analysis Of Covariance Among Strength Training Group I, Yoga Training Group II, Combined Training Group III And Control GroupOn Vo2 Max

	Strength Training Group	Yoga Training Group	Combined Training Group	Control Group	Source of Variance	Sum of square	Df	Mean square	F-value
Pre test mean	69.06	70.20	70.20	70.33	Between	15.783	3	5.261	0.79
					Within	373.06	56	6.662	
Post test mean	73.33	72.40	73.46	70.20	Between	102.58	3	34.194	5.24*
					Within	365.06	56	6.519	
Adjusted post mean	74.03	72.20	73.26	69.89	Between	143.33	3	47.778	20.70*
					Within	126.92	55	2.308	

Fig 2: The Adjusted Post Test Mean Values OFVO2 Max Of Experimental Group I, Experimental Group II, Experimental Group III And ControlGroup.

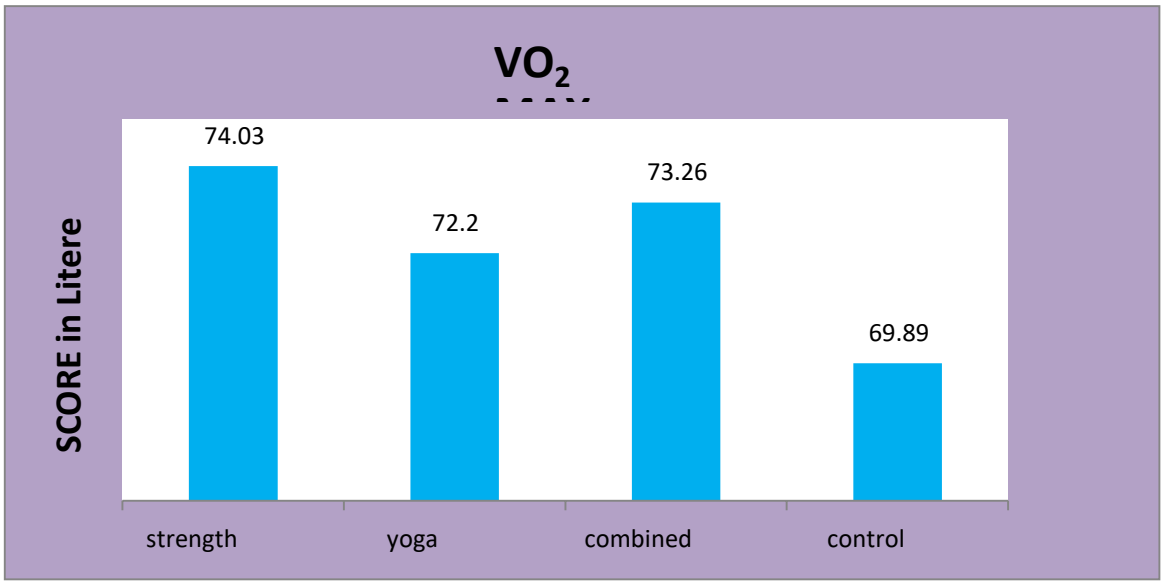
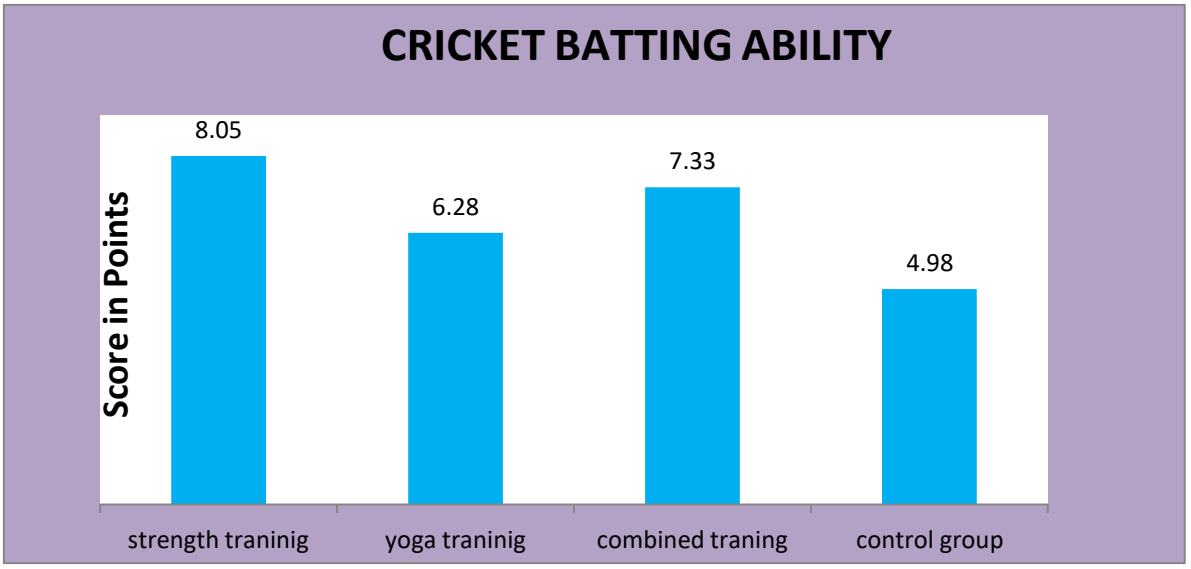


Table 3: Analysis Of Covariance Among Strength Training Group I, Yoga Training Group II, Combined Training Group III And Control GroupOn Cricket Batting Ability

	Strength Training Group	Yoga Training Group	Combined Training Group	Control Group	Source of Variance	Sum of square	Df	Mean square	F-value
Pre test mean	4.86	4.73	4.93	4.86	Between	0.317	3	0.106	0.17
					Within	33.33	56	0.595	
Posttest mean	8.06	6.20	7.40	5.00	Between	82.40	3	27.46	44.03*
					Within	34.93	56	0.624	
Adjuste d postmean	8.05	6.28	7.33	4.98	Between	79.98	3	26.663	93.52*
					Within	15.68	55	0.285	

Fig 3: The Adjusted Post Test Mean Values Of Cricket Batting Ability Of Experimental Group I, Experimental Group II, Experimental GroupIII And Control Group.



5. Results And Analysis

The influence of independent variables on each of the criterion variables is analyzed and presented below.

The training period was limited to twelve weeks. The dependent variables selected for this study were Physical Variables Speed Physiological variables, VO2 Max and performance variables. All the subjects were tested prior to and immediately after the experimental period on the selected dependent variables.

The data obtained from the experimental groups before and after the experimental period were statistically analyzed with dependent 't'-test and Analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, theScheffe'sPosthoctestwasappliedtodeterminethepairedmeandifferences.Thelevel of confidence was fixed at 0.05 level for all the cases.

6. Conclusion

The findings of the study showed that there was a statistically significant improvement in the physical fitness variables speed physiological variables VO2 Max and Skill performance variables batting ability as compared to control group.

1. The results of the study show that the experimental group-I that had undergone strength training group, improved corporeal variables namely Speed, physiological variables namely VO2 Max, skill performance variables namely cricket batting ability of college level men cricket players.
2. The results of the study show that the experimental group-II that had undergone yoga training group, improved corporeal variables namely Speed physiological variables namely VO2 Max skill performance variables namely cricket batting ability of college level men cricket players.
3. The results of the study show that the experimental group-III that had undergone combined training group, improved corporeal variables namely Speed physiological variables namely VO2 Max skill performance variables namely cricket batting ability of college level men cricket players.

Recommendations

It is recommended that coaches and physical educators in the game of cricket should give due to include strength training group, yoga training group and combined training group in their training schedules.

In the physical exercise, while designing the training programme the effect of varied training modalities

is explained on positively on physical fitness parameters and skill performance variables of cricket players, the physical education teachers and coaches can prefer this type of training so as to achieve aim in time.

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