

Football Shooting Performance Changes During Yoga Practices and Aerobic Dance Among College Men Football Players



Sports Science

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ABSTRACT

Aim of the study was to find out Football shooting performance changes during Yoga practices and Aerobic Dance among college men players. The study was conducted on forty five (N=45) men students studying various colleges affiliated to Madurai University, Madurai, India, during the year 2014-2015 were selected as subjects at random and they were divided randomly into two experimental groups and on control group of fifteen each, namely Group I Yoga Practices, Group II Aerobic Dance and Group III acted as Control. The training period was limited to twelve weeks and for three days per week. The experimental groups underwent their respective experimental treatment for 4 weeks. Among various Football skill performances only shooting skill only selected as dependent variables and it was assessed by Mor- Christian General Soccer Ability Test. All the subjects were tested prior to and after the training for all the selected variables. The data collected from the three groups prior to and post experimentation was statistically analyzed by using Analysis of Covariance (ANCOVA). Scheffe's post hoc test was applied to determine the significant difference between the paired means. In all the cases 0.05 level of significance was fixed. The result reveals significant differences in Football shooting skill among the experimental groups.

INTRODUCTION

Football refers to a number of sports that involve, to varying degrees, kicking a ball with the foot to score a goal. The most popular of these sports worldwide is association football, more commonly known as just "football" or "soccer". Unqualified, the word football applies to whichever form of football is the most popular in the regional context in which the word appears, including association football, as well as American football, Australian rules football, Canadian football, Gaelic football, rugby league, rugby union and other related games. These variations of football are known as football "codes".

Various forms of "football" can be identified in history, often as popular peasant games. Contemporary codes of football can be traced back to the codification of these games at English public schools in the eighteenth and nineteenth century. The influence and power of the British Empire allowed these rules of football to spread, including two areas of British influence outside of the directly controlled Empire, though by the end of the nineteenth century, distinct regional codes were already developing: Gaelic Football, for example, deliberately incorporated the rules of local traditional football games in order to maintain their heritage. In 1888, The Football League was founded in England, becoming the first of many professional football competitions. In the twentieth century, the various codes of football have become amongst the most popular team sports in the world (Wikipedia).

Yoga has been practised in India for over two millennia. Stories and legends from ancient times testify to the existence of yoga, and to the practitioners and divinities associated with it. Indian literature is a storehouse of knowledge about yoga covering every conceivable level. Roughly in chronological order are the vocals (books of Scriptural knowledge), the Upanishada (philosophical cosmologies), and their commentaries; then the Puranas (ancient cosmologies), and the two epics, the Ramayana and the Mahabharatha. The Mahabharatha contains within itself that masterpiece of Indian scripture the Bhagavad Gita. Towards the end of Vedic period comes the aphoristic literature, with the "Yoga Aphorisms" of Patanjali of special interest to yoga students. These are, besides, whole bodies of works both ancient (Pre-Christian) and more modern dealing with various aspects of yoga and yoga philosophy, testifying to the continued relevance of yoga as a discipline (Mira-Mehta, 1994).

Although the word 'yoga' has many connotations, etymologically it means "Integration". The term 'Samatva' of Bhagavat Gita conveys the same meaning. Other terms like homeostasis, equilibrium, balance, harmonious development etc. more or less sug-

gest the same things. The aim of yoga itself is an integration of personality in its all aspects. In order to help the development of such an integration various techniques are employed. These techniques or practices enjoined in Yogic literature and handed down in different traditions also go under the name of yoga (Gharote, 1976).

Aerobics, also known as the aerobic dance, is a common craze among most people today. It is one of the best ways to enjoy a fitness program and also a way to achieve better health. It is always preferable to find opportunities to do the 'health jig' either by oneself or under the guidance of an instructor.

The aerobic dance is a feet tapping exercise that is accompanied with musical beats and the signals of an instructor. Aerobic dancing also induces fast breathing for a long period of time by pumping more oxygen into the bloodstream. Also known as "aerobics", the aerobic dance can be done with hip hop or country folk music.

In numerous researches related to fitness, health, recreation and training, what was cited as being the main subject matter was the effects of various kinds of aerobic exercise training used with the aim of improving the functional abilities of the human body, body composition, motor abilities, psychological characteristics and cognitive abilities. It is also the ability to endure stress, which is of great importance for one's health. Since exercising can influence brain activity, one could claim that fitness activities, to a certain extent, lead to the improvement of mental liveliness and emotional stability (Kostic, 1999).

METHODOLOGY

To achieve the purpose of the study, forty five men students studying under Graduate Degree course in various Arts and Science Colleges affiliated to Madurai Kamaraj University, India, during the year 2014-2015 were selected as subjects of this study. The age of the subjects were ranged from 18 to 21 years. The subjects were assigned at random into three groups of fifteen each (n=15). Group I underwent Yoga Practices, Group II underwent Aerobic Dance and Group III acted as Control (n=15). Among the various Football skills shooting only selected for this study. All the experimental groups underwent their respective training for 4 weeks in addition to the regular training as per College curriculum. All the groups were tested on selected criterion variables prior to and immediately after the training periods. Football shooting skill was assessed by Mor-Christian General Soccer Ability Test.

TRAINING PROTOCOL

During the training period, the experimental groups underwent their respective training programmes. Group I underwent Yoga Practices, Group II underwent Aerobic Dance, for Monday to Saturday for four weeks. The duration of training session in all the days was between thirty and forty five minutes approximately which included warming up and limbering down. For Yoga Practices the following yoga's where given

Asana

Padmasana, Vajrasana, Paschimottanasana, Matsyasana, Ardha, Matsyendrasana, Bhujangasana, Sarvangasana, Shalabhasana, Pavanmuktasana, Dhanurasana, Halasana, Chakrasana, Virabhadrasana, Utthita Parsvakonasana, Utkatasana, Vrksasana, Tadasana, Garudasana and Shavasana

Pranayama

Nadi Suddhi, Nadi Sothana, Ujjayi, Bhramari, Sitali and Sitakari

Meditation

Any one meditation technique (Mantra / Object / Breathing / Yoga Nidra).

For Aerobic Dance the following Exercises were given.

On the Spot Movement

Rhythmic toe and Heel action, Fast Marching on the spot, Bending and Half squats

Dynamic Movement

Marching(Forward, Backward, Diagonal), Stepping(Forward, Backward, Sideward, Diagonal), Hopping and Dancing Movements Various Series

Sitting and Lying Position

Abdominal Exercises, Lower and Upper Back Exercises, Lying on the sides and Elbow support position

ANALYSIS OF THE DATA

The data collected from the three groups prior to and post experimentation on Football shooting skill were statistically analyzed by using Analysis of Covariance (ANCOVA).

Hence, whenever the obtained f-ratio value was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases 0.05 level of significance was fixed.

The Analysis of covariance (ANCOVA) on Football shooting skill of Experimental Groups, have been analyzed and presented in Table -1.

Table – 1 ANALYSIS OF COVARIANCE ON FOOTBALL SHOOTING SKILL OF YOGA PRACTICES GROUP, AEROBIC DANCE GROUP AND CONTROL GROUP

Dependent Variables	Adjusted Post-test Means			Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio	
	Yoga Practices Group (I)	Aerobic Dance Group (II)	Control Group (III)						
Football shooting skill (In Numbers)	119.39	103.68	87.51	Between With in	7459.50	2021.04	2 41	3729.75 49.29	75.65*

* Significant at.05 level of confidence

(The table value required for Significance at .05 level with df 2 and 41 is 3.23)

Table 1 shows that the adjusted post test mean value of Football shooting skill for Yoga Practices group, Aerobic Dance group and control group are 119.39, 103.68, and 87.51 respectively. The obtained F-ratio of 75.65 values of 3.23 for df 2 and 41 required for significance at .05 level of confidence.

The results of the study indicate that there are significant differences among the adjusted post test means of experimental groups on the increase of Football shooting skill.

To determine which of the paired means had a significant difference, Scheffe's test was applied as Post hoc test and the results are presented in Table 2.

Table - 2 THE SCHEFFE'S TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED POST TESTS PAIRED MEANS ON FOOTBALL SHOOTING SKILL

Dependent Variables	Adjusted Post-test means			Mean Difference	Confidence Interval
	Yoga Practices Group - (I)	Aerobic Dance Group - (II)	Control Group - (III)		
Football shooting skill (In Numbers)	119.39	103.68		15.71*	6.43
	119.39		87.51	31.88*	6.43
		103.68	87.51	16.17*	6.43

* Significant at.05 level of confidence

Table 2 shows that the adjusted post-test mean differences on Yoga Practices Group and Aerobic Dance Group, Yoga Practices Group and Control Group, Aerobic Dance Group and Control Group are 15.71, 31.88 and 16.17 respectively. These values are greater than the confidence interval value 6.43, which shows significant differences at .05 level of confidence.

It may be concluded from the results of the study that there is a significant difference in Football shooting skill between the

adjusted post-test means of Yoga Practices Group and Aerobic Dance Group, Yoga Practices Group and Control Group, Aerobic Dance Group and Control Group. However, the improvements of Football shooting skill were significantly higher for Yoga Practices Group than Aerobic Dance and Control Group.

It may also be concluded that Yoga Practices Group is better than Aerobic Dance and Control Group in improving Football shooting skill.

The adjusted post test mean values of experimental groups and control groups on Football shooting skill are graphically represented in the Figure -1.

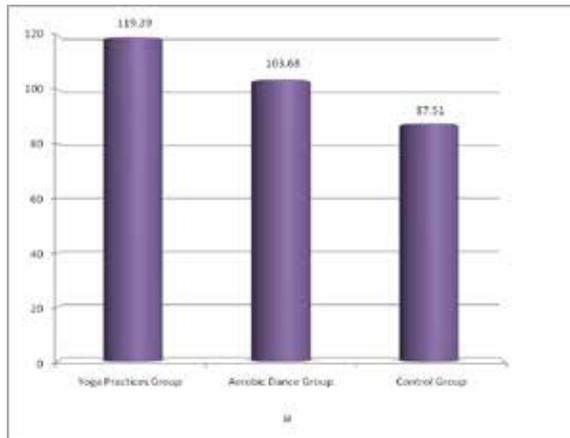


Figure-1: The adjusted post tests mean values of experimental groups on Cardio respiratory endurance (In Meters)

RESULTS AND DISCUSSION

The results of the study indicate that all the experimental groups namely Yoga Practices group and Aerobic Dance group had significantly improved in the selected dependent variable such as Football shooting skill. It is also found that the achieved by the Yoga Practices group was greater when compared to Aerobic Dance group and control group. These results are in conformity with the findings of the following studies undertaken by Boyle C.A. Sayers, and et.al.,(2004), Bruce (1986) and Cady Hart, and Tracy, Brian (2008).

It is inferred from the results of the present study that systematically designed Yoga Practices and Aerobic Dance enhance the performance standard, as the selected dependent variable are very important qualities for better performance in almost all sports and games. Hence, it is concluded from the results of the study that systematically and scientifically designed Yoga Practices and Aerobic Dance may be given due recognition and implemented properly in the training programmes of all the disciplines in order to achieve maximum performance.

CONCLUSION

From the analysis of the data, the following conclusions were drawn.

1. The experimental groups namely, Yoga Practices group and Aerobic Dance group had significantly improved in Football shooting skill.
2. Significant differences in achievement were found among Yoga Practices group and Aerobic Dance group with regard to all the selected criterion variables such as Football shooting skill.

REFERENCE

- Boyle C.A. Sayers, and et.al., The Effects of Yoga Training and A Single Bout of Yoga on Delayed Onset Muscle Soreness in the Lower Extremity. *Journal of Strength and Conditioning Research*, 18, (2004),723-9. | Cady Hart, and Tracy, Brian I(2008), Yoga as Steadiness Training: Effects on Motor Variability in Young Adults, *Journal of Strength and Conditioning Research*, 22(5)September. | Gharote, M.L (1976), "Contribution of yoga to the field of physical education" India: Yoga – Mimamsa Vol. XVIII, No. 50 – 51 | Gharote, R. (1999) *Fitness*, NIS Publishers. | Mira Mehta (1994), *How to use Yoga*, London: Annes Publishing Ltd. | Nobb Bruce J.(1986), *Physiology of Exercise and Sports*, Saint Louis: Times Mirror/Mosby College Publishing. | Retrieved from <http://en.wikipedia.org/wiki/Football> on 30.4.2012. |