Research Paper YOGIC SCIENCES

"INFLUENCE OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES AMONG HANDBALL PLAYERS"

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ABSTRACT

The purpose of the study was to find out the influence of yogic practices on selected physiological variables such as cardio respiratory endurance and vital capacity among handball players. To achieve this purpose, thirty male handball players were selected as subjects, their aged between 18 to 25 years, they are studying in the Department of Physical Education and Sports Sciences, Annamalai University, Tamilnadu. The selected subjects were divided into two equal groups of fifteen subjects each, namely yogic practices group and control group. Yogic Practices group, after a warm up for 5 minutes underwent Yogic exercises such as asanas, breathing practices and meditation and other yogic exercises alternatively and finished each session with cool down exercises and the sessions lasted for 40 minutes in each day, on alternate days, forming three days a week for eight weeks. Cardio respiratory endurance and vital capacity were selected as criterion variables and they were tested by using Cooper's 12 minutes run/walk test and spirometer respectively. ANCOVA was used to find out the significant difference if any between the groups. The results of the study showed that there was a significant differences on cardio respiratory endurance and vital capacity between yogic practices group and control group and also there was a significant improvement on cardio respiratory endurance and vital capacity due to eight weeks of yogic practices.

KEYWORDS Yogic Practices, Asana, Pranayama, Cardio Respirary Endurance and Vital Capacity

INTRODUCTION

Yoga strives to increase self awareness on both physical, physiological and psychological level. Physiological and Psychological problems such as respiratory, digestive, circulatory problems and also anxiety and stress are an unavoidable reality of life in today's world. You can't beat it entirely, and you can't live without it. The goal of managing these problems isn't to be completely without the physiological and psychological problems. Now a days physiological and psychological problem management through yoga is an essentional part of our lives. To get the maximum benefits of yoga one has to combine the practices of yogasanas, pranayama and meditation. The physical, physiological and psychological problems have become global problem now about 70-80 percentage of human problems, yoga towards management of physiological and psychological in daily life for better living.

One of the most challenging aspects of combating physiological changes are incorporating physical activity into the lifestyles of individuals who struggle with limited mobility as a result of their increased weight. Low-impact exercises like yoga provide an entry point for introducing exercise into sedentary lifestyles, but the focus on flexibility and balance may be intimidating for individuals trying out a beginner yoga class.

The purpose of the study was to find out the influence of yogic practices on selected physiological variables such as cardiovascular endurance and vital capacity among handball players. To achieve this, thirty handball players studying in the Department of Physical Education and Sports Sciences, Annamalai University in the age group of 18 to 25 years were selected as subjects at random with their consent. The selected subjects were divided into two equal groups of fifteen subjects each namely yogic practices group and control group. The selected criterion variables were assessed using standard tests and procedures, before and after training regimen.

Cardio respiratory endurance and vital capacity were tested before (pre) and after (post) the training program for both experimental and control group by using Cooper's 12 minutes run / walk test and spirometer respectively.

The selected subjects had undergone the yogic practices for eight weeks, with three days per week in alternate days. The subjects performed Yogic Practices group, after a warm up for 5 minutes underwent Yogic exercises such as asanas, breathing practices and meditation and other yogic exercises alternatively and finished each session with cool down exercises and the sessions lasted for 40 minutes in each day, on alternate days for eight weeks. The control group did not participate in any specialized training during the period of study.

METHODOLOGY

Variables	Test		Yogic Practices Group	Control Group	Source of Variance	SS	df	Mean Square	'F' Ratio
Cardio respiratory endurance	Pre test	Mean	2475	2458	Between	0.03745	1	0.03745	0.520
		S.D	151.20	104.5	Within	2.017	28	0.07202	
	Post test	Mean	2572	2515	Between	1.391	1	1.391	13.807
		S.D	92.64	61.84	Within	2.821	28	0.101	
	Adjusted Post test	Mean	2576	2492	Between	87631.4	1	87631.4	53.94*
					Within	43862.1	27	1624.5	
Vital capacity	Pre test	Mean	2605	2565	Between	48.133	1	48.133	2.57
		S.D	40.31	60.35	Within	391.33	28	13.482	
	Post test	Mean	2873	2576.66	Between	1244111	1	1244111	109.09*
		S.D	91.83	52.15	Within	239500	28	5702.38	
	Adjusted Post test	Mean	2857.53	2585.59	Between	1177943	1	1177943	124.57*
					Within	193420	27	4717.57	

RESULTS

The experimental design used for the present investigation was random group design involving 30 subjects for training effect. Analysis of Covariance (ANCOVA) was used as a statistical technique to determine the significant difference, if any, existing between pretest and posttest data on selected dependent variables separately and presented in Table-1.

TABLE – 1

(The table value required for significant at .05 level with df 1 and 28; and 1 and 27 are 4.20 and 4.215 respectively).

The pretest mean of Yogic Practices group and control group on Cardio respiratory endurance (2475 ± 151.2 Vs 2458 ± 104.5) resulted in a 'F' ratio of 0.52. The posttest mean of Yogic Practices Group and Control Group (2572 ± 92.64 Vs 2515 ± 61.84) resulted in a 'F' ratio of 13.807. The adjusted posttest mean of yogic practices group and control group (2576 Vs 2492) resulted in a 'F' ratio of 53.94*. The results of the study indicate that there was a significant difference between yogic practices group and control group on cardio respiratory endurance.

The pretest mean of Yogic Practices group and control group on vital capacity (2605 ± 40.31 Vs 2565 ± 60.35) resulted in a 'F' ratio of 2.57. The posttest mean of Yogic Practices group and control group on vital capacity (2873 ± 91.83 Vs 2576.66 ± 52.15) resulted in a 'F' ratio of 109.09. The adjusted posttest mean of Yogic Practices group and control group on vital capacity (2857.53 Vs 2585.59) resulted in a 'F' ratio of 124.57*. The results of the study indicate that there was a significant difference between Yogic Practices group and control group on Vital Capacity.

Discussion

The result of the study indicates that the yogic practices group had significantly improved the selected dependent variables namely cardio respiratory endurance and vital capacity. However, control group did not show any improvement on the selected variables as it was not involved in any of the specific training means. The result of the study in consonance with the findings of the has produced significant improvement on cardio respiratory endurance and vital capacity. It is inferred from the results of the present study that all the dependent variables were significantly improved due to the influence of yogic practices .

Conclusion

- It is concluded that the yogic practices program has resulted in significant improvement on selected criterion variables such as cardio respiratory endurance and vital capacity as compared to control group.
- It is concluded that there was significant differences on cardio respiratory endurance and vital capacity among yogic practices group and control group after eight weeks of yogic practices .

REFERENCES

[1]Sharma, P.D. Yogasana and Pranayama for Health Gala publishers, Ahmedabad, 1989. | [2]S.Harihara Sarma, "Rationale of Yoga and health ", Paper Presented at karaikudi: Alagappa University (25 April, 1994). | [3]Karen Ross, The New Manual of Yoga (London: W.Foulsham & Co., Ltd., 1973), p.17. | [4]Hardayal Singh, "Sports Performance and its Structure", SNIPES Journal, 5 April 1987, 4. | [5]Indira Devi, Yoga: The Technique of Health and Happiness (Bombay: Jaico Publishing House, 1967), p.20. | [6]V.S. Sethu Madhava rao, "Yogic Biometer Exercises", International Journal of physical Education, XIX-3 (1982). | [7]Narendra Prasad, "Yoga Changes Outlook of Convicts in Madya Pradesh Jails", The Indian Express (13 June, 1995). | [8]Gharote, Guidelines for yogic practices (Lonavala: Medha Publication, 1982), p.1 | [9]Bhargava R., Autonomic responses to breath holding and its variations following pranayama. Indian journals physiology pharmacology, 32(4) 1988 October-December P. 257-64. | [10]Jayadeva Yogendra., Pranyama. Journal of the Yoga Institute, Vol.7, 1965, p.111. John W. Bunn, Scientific Principles of Coaching, (2nd ed., Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1972), p. 125. | [11]Walter Winter Bottom, Soccor Coaching, (2nd ed., London: The Naldrett Press, 1954), pp. 54-67. | [12]Watson, A.W.S., Physical Fitness and Athletic Performances, (New York: Longman Inc., 1983). Leite N, et al.,(2009). Effect of Physical Exercise and Nutritional Guidance on Metabolic Syndrome in Obese Adolescent, Revista Brasileirade Fisioterabvbia,13,(1),pp.73-81. | [13]Gharote. M.L: Yoga the science of Holistic living,(Vivekananda Kendra Prakashan Publication vol.17 No.2, August 1988) P.131-136on Pvt. Ltd, Delhi, 11th Edition, p.569. |