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Effect of Varied Packages of Yogic Practices on Selected Motor Ability and Physiological Variables among College Level Hockey Players

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Abstract

The purpose of the study was to find out the effect of varied packages of yogic practices on selected motor ability and physiological variables among college level hockey players. To facilitate the study, 90 subjects were selected at random from S.I.V.E.T College Gowrivakkam TamilNadu. Their age was ranged between 18-25 years. They were assigned into three groups Group 1 served as Swami Satyananda Saraswati Yogic Practices group (EX GP1), Group 2 served as Swami Vishnudevananda Yogic Practices group (EX GP 2) and third one as control group. All the subjects were tested prior to and immediately after the six weeks treatment in progression motor ability such as muscular strength and cardio vascular endurance and physiological variables such as vital capacity and VO2 Max. The initial and final scores in selected motor ability, physiological, variables were put in-to statistical treatment using Analysis of Covariance (ANCOVA) to find out the significant mean differences. Scheffe s post hoc test was used to find out the paired mean differences. In all the cases the 0.05 level of confidence was fixed.

Keywords: Yoga; motor ability, physiological and hockey players.

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Introduction

“Each soul is potentially divine. The goal is to manifest this divinity within by controlling nature, external and internal. Do this either by work, or worship or psychic control, or philosophy –by one or more or all of these and be free. This is the whole of religion”

-Swami Vivekananda

Yoga is usually defined as union: union between the limited self (jiva) and the cosmic self (atman). Without trying to confuse things any further, we would like to point out that there is an anomaly in this definition. For there to be an aim or goal of union there must first be a state of separation. And in fact this separation does not exist. At this very moment you are united with the cosmic consciousness. Even this statement is not true, for you actually are the cosmic consciousness. So the aim of yoga is not really to unite you with greater self, to make you are already united. It is to make you realize your identity with the greater self, to make you know and tune in with your existing inner nature. (Swami Satyananda Saraswati, 1981).

Yoga is a way of life. It is predominantly concerned with maintaining a state of equanimity at all costs. All yoga schools of thought emphasize the importance of the mind remaining calm, because as the

saying goes, only when the water is still can you see through it. Yoga Darshan or Yoga Philosophy also happens to be a valid discipline of Indian metaphysics (Brahma Vidya). It is the result of human wisdom and insight on physiology, psychology, ethics and spirituality collected together and practiced over thousands of years for the well being of humanity. The basic idea of yoga is to unite the atma or individual soul with the paramatma or the Universal Soul. According to Yoga philosophy, by cleansing one's mind and controlling one's thought processes one can return to that primeval state, when the individual self was nothing but a part of the Divine Self. This is the sense encapsulated in In Sanskrit, the term 'yoga' stands for 'union'. A yogi's ultimate aim is to be able to attain this 'union' with the Eternal Self with the help of certain mental and physical exercises. It is often said that Hiranyagarbha (The Cosmic Womb) Himself had originally advocated the traditional system of yoga, from which all other yoga schools have evolved. But for all extant knowledge of yoga and its practices, such as yogasanas and pranayama, the entire credit goes to Maharishi Patanjali.

Statement of the Problem

The purpose of the study was to find out the effect of varied packages of yogic practices on selected motor ability and physiological variables among college level hockey players.

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Hypotheses

It was hypothesized that

1. There would be significant improvement difference in the selected motor ability and physiological variables due to the influence of varied packages of yogic practices than the control group among college level hockey players.
2. There would be significant improvement difference between the (varied packages of yogic practices) Satyananda Saraswati yogic practices and Swami Vishnudevananda yogic practices group on selected motor ability and physiological variables among college level hockey players.

Methodology

The purpose of the study was to find out the effect of varied packages of yogic practices on selected motor ability, physiological variables among college men

students. To facilitate the study, 90 subjects were selected at random from S.I.V.E.T College Gowrivakkam TamilNadu during the academic year 2017 - 2018. The subject's age ranged between 18-25 years only. They were randomly divided into three equal groups. Swami Satyananda Saraswati Yogic Practices group, Swami Vishnudevananda Yogic Practices group were considered as two experimental groups and the other group was control group. All the subjects were healthy and physically fit. The nature and importance of the study was explained to the subjects and subjects expressed their willingness to serve as subjects in this study. The experimental groups participated in their respective Swami Satyananda Saraswati Yogic Practices and Swami Vishnudevananda Yogic Practices group for a period of six weeks. The post test was conducted on the above said dependent variables after a period of six weeks in the respective treatments. The training Program was scheduled at 4 to 5p.m and 5 to 6p.m from Monday to Friday in progression.

Table 1

Training schedule for package yogic practices – swami satyananda saraswati yogic practices duration

SL.NO	NAME OF THE PRACTICE	DURATION		
		1 TO 2 WEEKS	3 TO 4 WEEKS	5 TO 6 WEEKS
		30 minutes	45 minutes	60 minutes
1.	Pawanmuktasana	3 minutes	5 minutes	10 minutes
2.	Surya Namaskara	3 minutes	4 minutes	5 minutes
3.	Ardha Padma Paschimottanasana	2 minutes	4 minutes	4 minutes
4.	Ardha Matsyendrasana	2 minutes	4 minutes	4 minutes
5.	Bhujangasana	2 minutes	2 minutes	4 minutes
6.	Sarvangasana	2 minutes	4 minutes	4 minutes
7.	Halasana	2 minutes	4 minutes	4 minutes
8.	Matsyasana	2 minutes	2 minutes	3 minutes
9.	Shavasana	2 minutes	2 minutes	3 minutes
10.	Kapalbhati	2 minutes	4 minutes	5 minutes
11.	Yoga Nidra	8 minutes	10 minutes	15 minutes

Table 2

Computation of analysis of covariance of motor ability and physiological variables

VARIABLES	Test	EXP. GP 1	EXP. GP 2	Control GP	SOV	SS	df	MS	F
MUSCULAR STRENGTH	Pre test Mean	24.8	24.80	24.89	B	18.02	2	9.01	0.12
					W	6538.88	87	75.16	
	Post test Mean	29.60	30.32	25.87	B	581.09	2	290.54	3.85*
					W	6562.70	87	75.43	
	Adjusted Post test mean	30.91	29.69	25.89	B	570.26	2	285.13	77.43*
					W	316.68	86	3.68	
CARDIO VASCULAR ENDURANCE	Pre test Mean	2685	2736.67	2710.00	B	40055.56	2	20027.78	0.31
					W	5652416.6	87	64970.31	
	Post test Mean	2888.33	2870.00	2730.00	B	450055.56	2	225027.78	3.91*
					W	5009416.67	87	57579.50	
	Adjusted Post test mean	2911.77	2846.05	2730.51	B	504832.20	2	252416.10	84.97*
						255474.12	86	2970.63	
VITAL CAPACITY	Pre test Mean	3280	3311.67	3401.67	B	239055.56	2	119527.78	0.75
					W	13943833.3	87	160273.95	
	Post test Mean	4116.67	3860.00	3483.33	B	6088666.67	2	3044333.3	16.73*
					W	15835333.3 3	87	182015.33	
	Adjusted Post test mean	4157.77	3875.64	3426.59	B	8023968.90	2	4011984.45	50.63*
					W	6815397.16	86	79248.8	
VO ₂ MAX	Pre test Mean	47.05	48.13	46.34	B	48.51	2	24.26	1.87
					W	1128.10	87	12.97	
	Post test Mean	51.50	51.65	46.43	B	528.55	2	264.28	918.0*
					W	1270.70	87	14.61	
	Adjusted Post test mean	51.61	50.75	47.22	B	318.40	2	159.20	52.06*
					W	262.99	86	3.06	

As shown in table 2, obtained F value on the scores of the pretest means 0.12, 0.31, 0.75 & 1.87 was lesser than the required F value of 3.103, which proved that the random assignment of the subject were successful and their scores in Muscular Strength, cardio vascular endurance, vital capacity & VO₂ Max before the training were equal and there was no significant differences. The analysis of post test means proved that the obtained F value 3.85, 3.91, 16.73 & 918.0 was greater than the required F value of 3.103 to be

significant at 0.05 levels. Taking in to consideration of the pre test and post test and post test means the adjusted post test means were done and the obtained F value of 77.43, 84.97, 50.63 & 52.06 was greater than the required F value of 3.103 hence it was accepted that the Swami Satyananda Saraswati Yogic practice group and Swami Vishnudevananda Yogic Practice group significantly increased the Muscular Strength, Cardio Vascular Endurance, Vital Capacity & VO₂ Max.

Table 3

Scheffe's confidence interval test scores

Variables	MEANS			MEAN DIFFERENCE	REQUIRED CI
	EXP.GP 1	EXP.GP 2	CONTROL GP		
MUSCULAR STRENGTH	31.97	29.73	-	2.24*	1.23
	31.97	-	25.87	6.10*	1.23
	-	29.73	25.87	3.85*	1.23
CARDIO VASCULAR ENDURANCE	2911.77	2846.05	-	65.72*	35.04
	2911.77	-	2730.51	181.26*	35.04
	-	2846.05	2730.51	115.54*	35.04
VITAL CAPACITY	4157.77	3875.64	-	282.14*	180.99
	4157.77	-	3426.59	731.19*	180.99
	-	3875.64	3426.59	449.05*	180.99
VO2 MAX	47.22	51.61	-	0.87	1.12
	47.22	-	50.75	4.39*	1.12
	-	51.61	50.75	3.53*	1.12

Discussion on Hypotheses

1. It was hypothesized that there would be significant improvement difference in the selected motor ability and physiological variables due to the influence of varied packages of yogic practices than the control group among college level hockey players. The results of the study indicated that there was a significant improvement in all the selected dependent variables due to the effect of varied packages of yogic practices than the control group. Hence the first hypothesis was completely accepted at 0.05 level of confidence with respect to all the motor ability and physiological variables.
2. It was hypothesized that there would be significant improvement difference between the (varied packages of yogic practices) Swami Satyananda Saraswati yogic practices and Swami Vishnudevananda yogic practices group on selected motor ability and physiological variables among college level hockey players. The second hypothesis was partially accepted at 0.05 level of confidence as there was a significant improvement difference between the Satyananda Saraswati and Swami Vishnudevananda yogic practice groups, with respect to variables such as muscular strength, cardio vascular endurance, vital capacity and VO₂MAX count and platelets, there was no significant difference between the Satyananda Saraswati and Swami Vishnudevananda yogic practice groups. In these cases the null hypothesis was accepted at 0.05 level of confidence.

Conclusions

Within the limitations and delimitations set for the present study and considering the results obtained, the following conclusions were drawn:

1. Two different yogic practice methods (Swami Satyananda Saraswati and Swami Vishnudevananda yogic practices) helped to improve the muscular

strength, cardio-vascular endurance, vital capacity, VO₂ Max.

2. Systematic Six weeks of Swami Satyananda Saraswati yogic practice system improves the muscular strength, cardio-vascular endurance, vital capacity and VO₂ Max more than the Swami Vishnudevananda yogic practices.
3. Swami Satyananda Saraswati yogic practice system was a suitable training system to improve the muscular strength, cardio-vascular endurance, vital capacity and VO₂ Max increased among the college level hockey players.

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