



Effect of selected asans & pranayama training on cardio vascular efficiency and selected psychological variables

Abstract

The purpose of the present study was to find out the effect of selected yoga and prayanam training program on cardiovascular efficiency and selected psychological variables on school students. The sample has 40 undergraduate students who were study in bachelor of commerce in shah c.k. municipal commerce college Kalol (n.g.); the ages of subject's were from 18 to 20 years. And the selected subjects were divided into two groups i.e. 20 as Experimental group and 20 as Control group. In the present study purposive -random sampling technique was used to select the sample. cardiovascular efficiency and self-confidence, anxiety and achievement motivation were selected in psychology variables. After assessment of pre-test, gave treatment to experimental group. Selected yoga and prayanam training program was conducted for 12 weeks. After the completion of 12 weeks training, the post test was conducted to know the significance difference between Experimental and Control. The 't' test was applied to analyze the data. Statistically significant effect of Selected yoga and prayanam training program was significant improvement found on cardiovascular efficiency and selected psychological variables self-confidence and anxiety on college students who were study in bachelor of commerce in shah c.k.municipal commerce college, KALOL north Gujarat as compare to control group at .05 level of significance. But there was no significant improvement found in achievement motivation.

Key words: *asnas, Pranayam, cardiovascular, psychological*

Introduction

Entire personality development along with body, mind and soul can be achieved by 'Ashtang Yoga' (Yoga with 8 parts *via* – Yam, Niyam, Asan, Pranayam, Pratyahar, Dharana, Dhyana and Samadhi). It is sad that we have failed to recognize the invaluable treasure (i.e. Yoga) stored up in our Indian Culture. This yoga is such an accomplishment that can completely restore our physical and mental health. Yoga brings improvement in our daily mental health. It is a fact. It is Yoga that activates our muscles, nerves, brain respiratory system etc. in a balanced manner. Yoga has so many advantages. It strengthens body structure, accelerates purification of oxygen and blood. Skin becomes smooth, tender and beautiful. Yoga increases the elasticity of spinal cord. The process of controlling breath is a yogic function" which is called 'Pranayama'. After stabilizing the third part (of the eight) 'Asan', the constant working respiratory system is broken down and blocked up (obstructed) who is called pranayama. Yoga is a science that has been practiced for thousands of years. It consists of ancient theories, observations and principles about the mind and body connection which is now being proven by modern medicine. Substantial research has been conducted to look at the health benefits of yoga from breathing (pranayam) and meditation. The information is group into two categories - physiological and psychological effects. Furthermore, scientists have laid these results against benefits of regular exercise. Yoga is a way of life, which can be practiced by any human being regardless of age, sex and condition of health, thus it is based on general physical and spiritual laws which operate all mankind alike. Yogic exercise is a kind of bodily movement with mental concentration. Yoga exercise can help a person to develop his health along with control at various

emotions like lust, affection, anger, greediness and provide firm control over body and mind, especially to overcome most of dangerous diseases. For this reason at present scenario the importance of yoga is felt by a large number of persons in most of the nations. It is now being realized in all parts of the globe that yoga is not only for better development of mind, socio-control and spiritual moral aspect but is also a therapy. Regardless of the testimony of celebrities or the documented physiological benefits of regular yoga or mind body practices, even the most motivated individuals find it challenging to find time to implement any of the worthwhile yoga techniques available to them. With various organized classes ranging from 45 to 90 minutes in length, it is often difficult to incorporate a daily or weekly yoga practice given the time already appropriate to regular cardiovascular or resistance training routines. Modern man lives is a mental world in which the important skills of success are based on his psychological activities. Increasing pressures on human mind in the pursuit of materialistic philosophy are making inroads into the happiness of life. Moreover, the twentieth century is a revolt against the traditional practices prevalent in the past. To keep pace with the fast and vast changes that are taking place in the various disciplines, there is a tremendous demand and responsibility cast on the training system to meet the challenges of preparing men and women to achieve tasks with success and Typical warning signs of a potentially life-threatening problem are bowel and/or bladder incontinence or progressive weakness in the legs. Severe back pain (such as pain that is bad enough to interrupt sleep) that occurs with other signs of severe illness (e.g. fever, unexplained weight loss) may also indicate a serious underlying medical condition. Back pain that occurs after a trauma, such as a car accident or fall may indicate a bone fracture or other injury.

Methodology

In this research, the boys (students) of 18-20 age group of social science graduates from commerce college, kalol were selected as sample for the purpose of study. Their age was verified from the college register. The subject was randomly distributed in one experimental groups and one controlled group. Every group contained 20 students. Expert physical education teachers were requested to help the conduction of test, and the demonstration of test was also presented. Unanimity and validity were maintained during the conduction of test. The subjects were given opportunity before the actual commencement of test. All the tests were administered on all the subjects. In this test 'Howard step Test' were used to measure 'cardio-vascular efficiency' respectively. Stop watch, 20" high bench, Metronome and as an alternative arrangement stethoscope were required as tools to conduct the test. The examination of tools like stop watch, 20" high bench, metronome and as an alternative arrangement stethoscope utilized in this study was made by researcher himself. In psychological variables self confidence measuring by standard questionnaire developed by Rekha Agnihotry , anxiety was measured by standardized questionnaire developed by R. Martin and achievement motivation measured by standardized motivation questionnaire developed by M.L. Kamlesh. The 't' test was used to determine the effects of yoga training program on cardiovascular efficiency . Further the level of significance was set at 0.05 levels.

Yoga Training Program for Twelve weeks (Time period - 45 minutes)

Sr. No.	Activities	Name and duration of Asanas and Pranayam
1	Warming up	• Neck rotation, Shoulder rotation, Hip rotation and Knee sitting Position
2	Yogasan in standing position	• Tadasan , Vrukshansan , Pad Hastasan, Ardhchakrasan and Trikonasan
3	Yogasan in Seating position	• Bhadrasan, Shashankasan, Ardh ushtrasan and Vkrasan
4	Yogasan in Sleeping	• Bhujansana, Shalbhasan and Makrasan

	position (on stomach)	
5	Yogasan in sleeping position (on back)	• Pawan Muktasana and Shwasana
6	KalpabhatiPranayam	• 20-30 Strocks in 3 round
7	Nadishodhan	• 5 round
8	Bhramari Pranayam	• 5 round
9	Seat in any kind of Dhyan mudra	• At the time of meditation play melodies background music

Outline of Subjects

Group	Type of Training	Number of Subjects
A	Asana and Pranayam	20
B	Controlled Group	20
	Total	40

Table-1

Significance of deference between mean scores on cardio-vascular efficiency and selected physiological variables of Pre test and post test of students

Sr.No	Variables		Means		Mean Difference	SD	t-ratio
			Pre Test	Post Test			
Physiological variables							
1	cardio-vascular efficiency	Experim ental Group	82.30	90.42	8.12	11.20	5.69*
		Control Group	77.03	78.70	1.67	10.50	1.31
Psychological variables							
6	Self confidence	Experim ental Group	34.40	22.60	11.8	6.46	4.78*
		Control Group	32.20	30.50	1.70	5.65	1.10
7	Anxiety	Experim ental Group	18.30	24.10	5.80	4.68	2.89*
		Control Group	17.10	19.50	2.40	3.94	0.87
8	Achievement Motivation	Experim ental Group	24.20	23.10	0.90	5.84	1.75
		Control Group	23.10	22.50	0.60	4.13	1.96

*Significant at .05 level $t_{.05(38)} = 2.02$

Result of the study

- It is observed from that the calculated' value (5.69*) is more than the tabulated' (2.02). Hence, it may be considered that there was significant difference found in cardiovascular efficiency between pre-tests and post-test of experiment group at 0.05 level of significance. Whereas no significant difference found in control group.
- It is observed from that the calculated value (4.78) is more than the tabulated' (2.02). Hence, it may be considered that there was significant difference found in self-confidence between pre-test and post test of experimental group at 0.05 level of significance. Whereas no significant difference found in control group.
- It is observed from that the calculated value (2.89) is more than the tabulated' (2.02). Hence, it may be considered that there was significant difference found in anxiety between pre-test and post test of experimental group at 0.05 level of significance. Whereas no significant difference found in control group.
- It is observed from that the calculated value (1.75) is less than the tabulated' (2.02). Hence, it may be considered that there was no significant difference found in achievement motivation between pre-test and post test of experimental group at 0.05 level of significance. Whereas no significant difference found in control group.

Discussion and conclusions:

On the basis of obtained results, it has been observed that there was significant difference found in cardiovascular efficiency and psychological variables self-confidence and anxiety between pre-test and post-test of group. Results also revealed that there was no significant difference found in achievement motivation between pre-test and post-test of groups. Selected yoga and prayanam training program more is effective in cardiovascular efficiency and two psychological variables self-confidence and anxiety. But no significant difference found in one psychological variable achievement motivation.

References:

- I. Agrawal, Satyapal Dholandas, "Yogasan Evam Sadhana" Delhi; Bharateeya yog sansthan, 1989.
- II. Mcgee , Rose Marry, Barov Harold M., A Practical Approach to Measurement in Physical Education(Philadelphia : Lee and Febiger) 1979
- III. James A. Raub, "Psychological Effects of Hatha Yoga On Musculoskeletal and Cardiopulmonary Function: A Literature Review" , The Journal of Alternative and Complementary Medicine, (2002)
- IV. Guar, B.P. and Anshuman Sharma , Effect of Preksha Meditation on Personality Variables and Psycholmatic Health. (2008)
- V. Nagendra, H.R. Jnana Yoga-The Path of Knowledge, Yoga and its applications. Yoga Sudha. Swami Vivekananda Yoga Prakashana, Banglore, (1999)
- VI. Joshi, K. S. , Yogic Pranayama Breathing for long life and Good Health. Udayana Publications, New Delhi (1984)
- VII. Ajmeer Singh. Essential of Physical Education (New Delhi: Kalyani Publication), 2005, 66. 2. Ajmer Singh. Essential of Physical Education, Daruyaganj, New Delhi, 2006, 275.

- VIII. Ayyangar B.K. "Yog Deepika" 1st edition; Mumbai : Light and yog Research Trust Part-1. 1984.
- IX. Clark H. Harivan and David H. Clark, "Application of Management to Physical Education" New Jerky, Angle wood Deluxe, 1987.
- X. Garrote, M.L. "Effect of Yogic Training on Physical Fitness" "Yog Mimansa" 15(4), 1973
- XI. Joshi, Kalidas, "Vyavaharee yog" (Prectical yog), 1st edition : Bhopal, M.P. Hindi Granth Academy, 1st edition, 2001.
- XII. Pandey, P.K. "Khow How Sports Medicine", Jalandhar: M.P. Publishers, 1992
- XIII. Parekh, Bhagwanlal U., Parekh and Manubhai D. Trivedi "Shikshan man Ankada Shastra" (statistics in education) Ahmedabad. "University Granth Nirman Board" ,1994.
- XIV. Sharma, P.D. "Yogasan ane Pranayam Karo ane Neerogi Raho" (Perform yogasan and Pranayam and Stay Healthy), Ahmedabad, Navneet India Ltd, Dantali, Gujarat 2001.

Dr. Bimalkumar K. Joshi

Assistant Professor

Shah C.K. Municipal Commerce College

Kalol

Copyright © 2012 – 2018 KCG. All Rights Reserved. | Powered By: Knowledge Consortium of Gujarat