



## **EFFECT OF YOGA TRAINING ON ATTENTION AMONG COLLEGE STUDENTS**

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### **Abstract**

*The purpose of the study was to investigate the effect of yoga training on attention among college students. For the present study the 30 male college students from Mannaniya College of Arts and Science, Thiruvananthapuram, Kerala were selected at random and their age ranged from 18 to 25 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each. Group 'A' underwent yoga training only, group 'B' have not underwent any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA). The level of significance was set at 0.05. It was observed that the yoga training have significantly improved the attention of college students.*

**Key Words:** Yoga Training, Attention, College Students.

### **Introduction:**

The Asanas improve mental power and health in controlling the sense organs. It increases the elasticity of our body and makes the body more active and supple. The blood circulation takes place more smoothly and properly, the body becomes capable of more work. It improves our resistance power against diseases and do not allow any external matter to accumulate in the body, they keeps the body free from diseases. The different types of asanas clean the blood circulation, drain of our body and circulate blood freely to all parts of our body. It also helps keep our body free from impurities. Yogasanas are the best exercises to keep organs in proper functioning order. It is not only improving body health, but also have sobering effects on the mind. The mind becomes balance and peaceful. The practice of Yoganaras is very effective, activating on various glands, so that they secrete their juices in the required quantity and function properly. Yoga is more than mastering postures and increasing flexibility and strength. "The traditional purpose of Yoga, however, has always been to bring about a profound transformation in the person through the transcendence of the ego". In Hinduism, Buddhism and Jainism the word yoga means "spiritual discipline". People often associate yoga with the postures and stances that make up the physical activity of the exercise, but after closer inspection it becomes clear that there are many more aspects of yoga. It is an activity that has been practiced for thousands of years, and it is something that has evolved and changed overtime. Different factions of yoga have developed since its conception (Derebail et al. 2011).

### **Reviews:**

Chandrakumar & Ramesh (2016) determined the best training packages among the yogic practices, aerobic exercise and interval training on selected health related physical fitness namely cardio respiratory endurance and flexibility among school boys. To achieve the purpose of the present study, sixty school boys from Dindigul district, Tamilnadu were selected as subjects at random and their ages ranged from 13 to 17 years. The subjects were divided into four equal groups of fifteen school boys each. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (N=60)

were randomly assigned to four equal groups of fifteen school boys each. The groups were assigned as yogic practices, aerobic exercises, interval training and control group in an equivalent manner. The group I underwent yogic practices, group II underwent aerobic exercises, group III underwent interval training and group IV acted as a control group. The three experimental groups were participated the training for a period of twelve weeks to find out the outcome of the training packages and the control group did not participated in any training programme. The variable to be used in the present study was collected from all subjects before they have to treat with the respective treatments. It was assumed as pre-test. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. The following statistical techniques were adopted to treat the collected data in connection with established hypothesis and objectives of this study. Analysis of covariance (ANCOVA) was applied because the subjects were selected random, but the groups were not equated in relation to the factors to be examined. Hence the difference between means of the four groups in the pre-test had to be taken into account during the analysis of the post-test differences between the means. This was achieved by the application of the analysis of covariance, where the final means were adjusted for differences in the initial means, and the adjusted means were tested for significance. Whenever the adjusted post-test means were found significant, the scheffe's post-hoc test was administer to find out the paired means difference. To test the obtained results on variables, level of significance 0.05 was chosen and considered as sufficient for the study. The significant mean difference does not exist among the experimental groups in the pre test on cardio respiratory endurance and flexibility. In testing post test mean difference among the experimental groups statistically significant on variables of cardio respiratory endurance and flexibility. In testing the post adjusted mean among the experimental groups also predicts the above result. In comparing the effect the YPG showed better performance on flexibility. In comparing the effect the AEG and ITG produced similar effect on both the variables.

Anil (2016) examined the effect of yogic practices on selected motor fitness components of college girls. For the purpose of the study 40 girls were selected randomly from Indirabai Meghe Mahila Mahavidyalaya, Amravati (Maharashtra) India as subjects. Age of the subjects ranged from 18 to 20 years. Twenty girls were assigned as experimental group and another 20 girls were assigned as control group during the academic year 2014-2015. Six weeks of yoga sanas training were given to the experimental group. The control group was not allowed to participate in any of the training programes, except their routine physical education classes. Measurements for the variables were taken at the beginning (pre - test) and at the end of the experimental period, after six weeks (post - test) the data were collected for all the variables from both control and experimental groups, for five days. During this period the subject were not allowed to participate in any training. The criterion measures adopted for the study measuring the motor fitness components are given below: Shoulder flexibility was measured by administering shoulder and wrist elevation test and Muscular endurance was by administering bent-knee sit-ups. The data collected on 40 subjects beginning (pre - test) and at the end of the experimental period, after six weeks (post - test) the data were collected for all the variables from both control and experimental groups on shoulder flexibility and muscular endurance variables were analyzed by using the 't' test. There was significant difference in shoulder flexibility and

muscular flexibility between pre and post-test experimental group. There was insignificant difference in shoulder flexibility and muscular flexibility between pre and post-test control group. There was insignificant difference in shoulder flexibility and muscular flexibility between experimental and control group pre test. There was significant difference in shoulder flexibility and muscular flexibility between experimental and control group post-test. Shoulder flexibility and muscular endurance was significantly improved by the yogic practices group when compared with control group.

Karthikeyan (2015) influenced of asana with meditation on selected hematological variables among residential school boys. To achieve the purpose of the present study, forty boys from Velammal Matriculation Higher Secondary School, Viraganoor, Madurai, Tamilnadu were selected as subjects at random and their ages ranged from 15 to 17 years. The selected subjects are divided in to two groups. The experimental group underwent asana with meditation for six weeks. The control group was not undergone any training other than their daily routine. The criterion measures HDL and LDL were tested using enzymatic calorimeter method. The two groups were statistically analysed by using analysis of covariance (ANCOVA) at 0.05 level. The result of the study reveals that there was a significant improvement in the experimental group on selected variables when compared to the control group after the completion of six weeks of asana with meditation practice. The asana with meditation practice group has showed better performance on HDL, LDL and explosive power than the control group.

Parkhad et al. (2015) determined the effect of yoga training on cardiovascular response to step test and its time course after exercise in normal adolescent girls. This study was conducted on 200 adolescent school going girls and mainly focused on assessing the effect of yoga training on improvement of heart rate (HR) by using parameters such as RPP and DoP. Change in the HR with response to exercise was determined by using two constructed staircases, each of 9 inch (22.5 cm) in height. HR and blood pressure response to exercise were measured in when the subject were in supine position before exercise and at 1, 3, 5, 7, and 10 min after the exercise. Rate pressure product [ $RPP = (HR \times SP)/100$ ] and double product ( $DoP = HR \times MP$ ), which are indices of work performed by the heart, were calculated. After 6 months of yoga training, exercise-induced changes on these parameters were found to be reduced significantly. It is concluded that after yoga training a given amount of exercise leads to a milder cardiovascular response, suggesting better exercise tolerance. Exercise produced a significant increase in HR, systolic pressure, RPP, and DoP, and a significant decrease in diastolic pressure.

Ramesh Kumar & Chandrasekaran (2015) investigated the effect of varied combinations of yogic practices on physiological variables of school boys of Kuwait aged 13-15. To achieve the purpose of this study a survey was conducted and 1000 students from Indian central school, Kuwait to find out the health related fitness status. Among the group 183 students were reported low fitness. In that forty male students who are low in fitness were selected for the experimental study. As per the records, their age ranged from 13 to 15 years. True randomized experimental group design has been employed with two groups, namely varied combinations of yogic practices group and control group with 20 students each. Resting heart rate, systolic blood pressure and diastolic blood pressure were the criterion variables for the present study. Group I underwent varied combinations of yogic practices viz, asanas, imaginary meditation followed by pranayama for a period of

twelve weeks and no training was given to the control group. The two groups were statistically analysed by using analysis of covariance (ANCOVA). The result of the study reveals that there was a significant improvement in the experimental group on selected variables when compared to the control group after the completion of twelve weeks of varied combinations of yogic practices.

Senthilkumar (2015) investigated the effects of selected yogic exercises on vital capacity and body fat. To facilitate the study, thirty subjects from selvam higher secondary school, Namakkal were selected as subjects at random and their ages between 14 to 17 years. The subjects were divided into two equal groups. In this study, yogic exercise was given to experimental group for the period of 6 weeks. The pre-tests were taken from the subjects before administrating the training. The subjects were involved with their respective training for a period of 6 weeks. At the end of the sixth weeks of the training posttest were taken. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by paired t ratio. The level of significance was fixed at 0.05 level of confidence for the degree of freedom 14. Vital capacity and body fat of experimental group showed significant difference when compared to control group. There was no significant difference in vital capacity and body fat of control group.

**Methodology:**

The purpose of the study was to investigate the effect of yoga training on attention among college students. For the present study the 30 male college students from Mannaniya College of Arts and Science, Thiruvananthapuram, Kerala were selected at random and their age ranged from 18 to 25 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each. Group ‘A’ underwent yoga training only, group ‘B’ have not underwent any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA). The level of significance was set at 0.05.

**Results:**

Table 1: Computation of Analysis of Covariance of Mean of Yoga Training and Control Groups on Attention Trial A

	YTG	CG	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	53.86	55.26	BG	14.70	1	14.70	0.31
			WG	1314.66	28	46.95	
Post-Test Means	30.73	54.86	BG	4368.13	1	4368.13	207.06*
			WG	590.66	28	21.09	
Adjusted Post-Test Means	30.87	54.72	BG	4216.75	1	4216.75	213.05*
			WG	534.39	27	19.79	

(Table Value for 0.05 Level for df 1 & 28 = 4.19)

(Table Value for 0.05 Level for df 1 & 27 = 4.21)

df- Degrees of Freedom

An examination of table 1 indicated that the pretest means of yoga training and control groups were 53.86 and 55.26 respectively. The obtained F-ratio for the pre-test was

0.31 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 1 and 28.

The post-test means of the yoga training and control groups were 30.73 and 54.86 respectively. The obtained F-ratio for the post-test was 207.06 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 28. The adjusted post-test means of the yoga training and control groups were 30.87 and 54.72 respectively. The obtained F-ratio for the adjusted post-test means was 213.05 and the table F-ratio was 4.21. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 27.

Figure 1: Pre and Post Test Differences of the Yoga Training and Control Groups on Attention Trial A

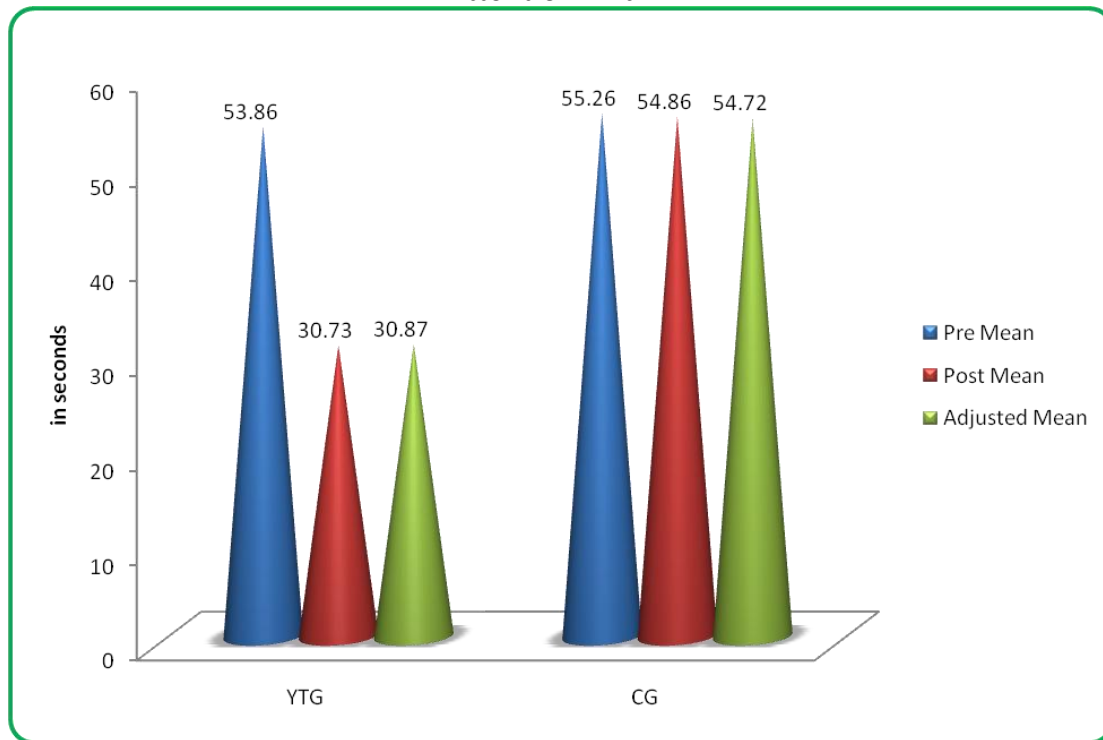


Table 2: Computation of Analysis of Covariance of Mean of Yoga Training and Control Groups on Attention Trial B

	YTG	CG	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	177.86	179.53	BG	20.83	1	20.83	0.12
			WG	4617.46	28	164.91	
Post-Test Means	115.66	178.33	BG	29453.33	1	29453.33	100.12*
			WG	8236.66	28	294.16	
Adjusted Post-Test Means	115.79	178.21	BG	29090.91	1	29090.91	96.54*
			WG	8135.73	27	301.32	

(Table Value for 0.05 Level for df 1 & 28 = 4.19)

(Table Value for 0.05 Level for df 1 & 27 = 4.21)

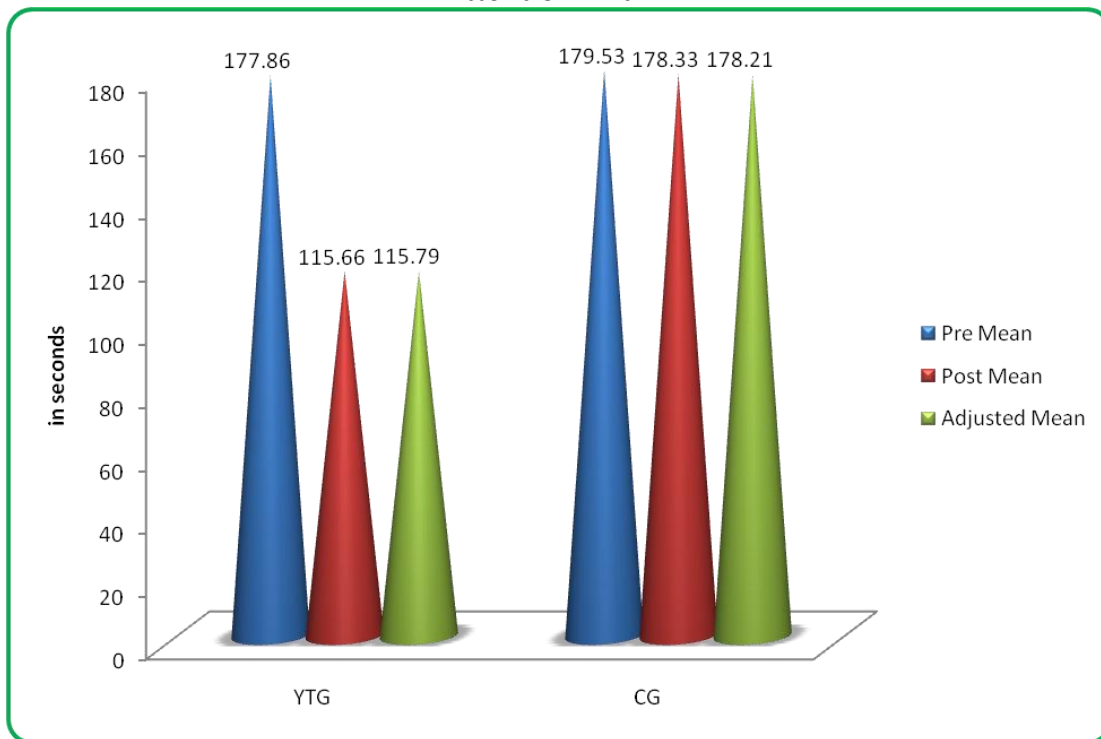
df- Degrees of Freedom



An examination of table 2 indicated that the pretest means of yoga training and control groups were 177.86 and 179.53 respectively. The obtained F-ratio for the pre-test was 0.12 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 1 and 28.

The post-test means of the yoga training and control groups were 115.66 and 178.33 respectively. The obtained F-ratio for the post-test was 100.12 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 28. The adjusted post-test means of the yoga training and control groups were 115.79 and 178.21 respectively. The obtained F-ratio for the adjusted post-test means was 96.54 and the table F-ratio was 4.21. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 27.

Figure 2: Pre and Post Test Differences of the Yoga Training and Control Groups on Attention Trial B



**Conclusion:**

It was observed that the yoga training have significantly improved the attention of college students.

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