



A Statistical Approach towards the Effect of Yoga on Total Cholesterol of Overweight Professional College Students

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Abstract

The purpose of this study was to find out the effect of yoga on total cholesterol among overweight professional college students. To achieve the purpose of the present study, thirty overweight professional college students from Kings Engineering College, Namakkal, India were selected as subjects at random and their ages ranged from 18 to 23 years. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n= 30) were randomly assigned to two equal groups of fifteen overweight professional college students each. The groups were assigned as control group and experimental group in an equivalent manner. The training group participated the training for a period of six weeks and the post-tests were conducted. The subjects were tested prior to and after the experimentation on total cholesterol. 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 used to test the treatment effect of the training programmes on all the variables used in the study. The experimental group had achieved significant reduction on total cholesterol than the control group.

Keywords: Yoga, Overweight, Professional College Students, Total cholesterol.

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Introduction

Yoga is an orderly and precise procedure to control and build up the psyche and body to accomplish great wellbeing, equalization of brain and self-acknowledgment. Thought yoga has the potential capacity to make us sound added to our force, still a great many people come up short on the information of orderly routine with regards to yoga. They perform yogic activities for a brief period and when their wellbeing enhances, they cease the yoga practice. Therefore, the powerful consequences of yogic practices can't be resolved impeccably. Numerous researchers, specialists, clinicians and so on, everywhere throughout the world are broadly examining the advantageous parts of yoga which urges us to accomplish positive wellbeing through yoga. Yogasanas are exceptionally successful in tossing out the entirety of our body squanders and bring command over the body and organs are appropriate working of which depends our wellbeing and bliss. The Asanas enhance mental power and wellbeing in controlling the sense organs. It expands the flexibility of

our body and makes the body progressively dynamic and supple. The blood course happens all the more easily and appropriately and the body ends up able to do more work. It enhances our opposition control against infections and don't enable any outer issue to amass in the body, they keep the body free from ailments. The distinctive asanas clean the blood dissemination, deplete of our body and circles blood openly to all parts of our body and helps keep our body free from polluting influences. Yogasanas are the best way to keep organs in appropriate working request. It isn't just enhancing body wellbeing, yet in addition effects affect the brain. The brain progresses toward becoming parity and serene. The act of Yogasanas is extremely compelling enacting on different organs, so they discharge their juices in the required amount and capacity legitimately. Yoga is a lifestyle, an incorporated arrangement of training for the body, mind and internal soul. The specialty of right living was idealized and rehearsed in India a large number of years back however, since yoga manages Universal truth its lessons are as legitimate today as they were in old occasions. Yoga is a down to earth help, not a religion and its methods might be drilled by Buddhist, Jews, Christians, Muslims, Hindus and Atheist alike (Manchanda & Madan, 2014).

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Methodology

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period of six weeks and the post-tests were conducted. The subjects were tested prior to and after the experimentation on total cholesterol. 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 used to test the treatment effect of the training programmes on all the variables used in the study.

Results

Table 1

Computation of analysis of covariance of mean of yoga and control groups on total cholesterol

	YG	G	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	223.93	224.03	BG	0.07	1	0.07	0.01
			WG	173.65	28	6.20	
Post-Test Means	206.70	224.01	BG	2246.40	1	2246.40	247.38*
			WG	254.26	28	9.08	
Adjusted Post-Test Means	206.70	224.01	BG	2259.09	1	2259.09	295.70*
			WG	206.27	27	7.64	

* Significant at 0.05 level

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

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

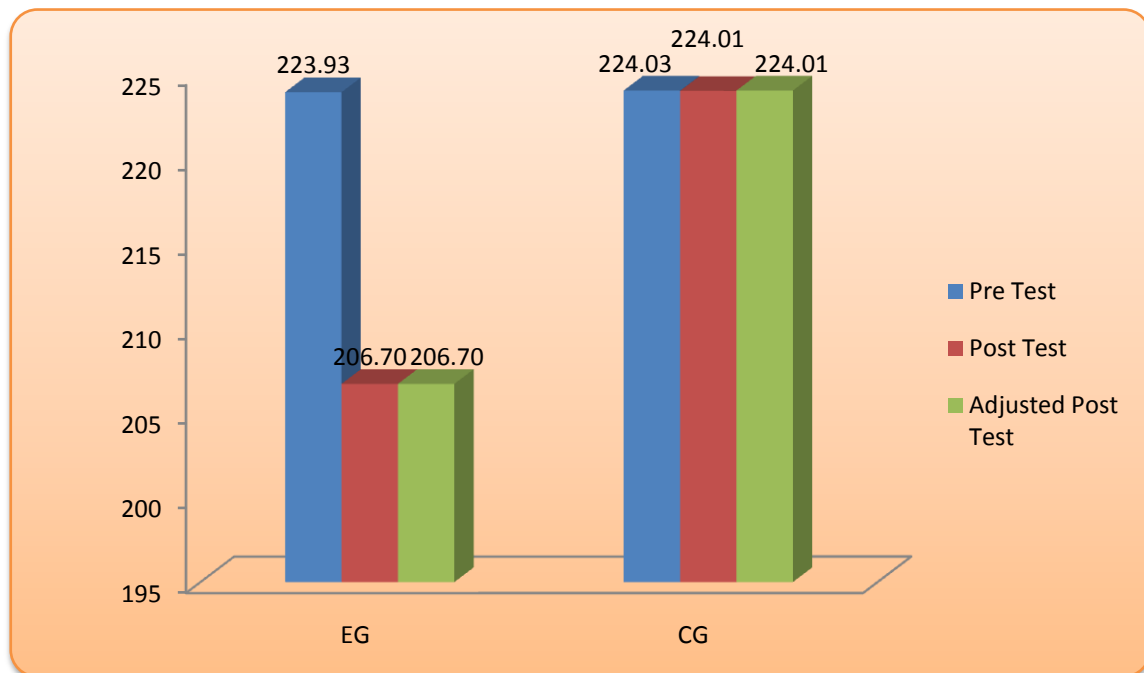
df- Degrees of Freedom

An examination of table - 1 indicated that the pretest means of yoga and control groups were 223.94 and 224.04 respectively. The obtained F-ratio for the pre-test was 0.01 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 and control groups were 206.71 and 224.02 respectively. The obtained F-ratio for the post-test was 244.38 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 and control groups were 206.71 and 224.04 respectively. The obtained F-ratio for the adjusted post-test means was 295.70 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. The pre, post and adjusted post test mean values of yoga and control groups, on total cholesterol are graphically represented in the figure - I.

Figure 1

Pre and post test differences of the yoga and control groups on total cholesterol



Conclusion

1. The experimental group had achieved significant reduction on total cholesterol than the control group.

References

1. Ashby SE, Ryan S, Gray M, James C. (2012). Factors that influence the professional resilience of occupational therapists in mental health practice. *Aust Occup Ther J.* 60(2):110-9.
2. Chandrasekaran.K (2003). *Yoga for Health*, Delhi; Khel Sathiya Kendra.
3. Derebail Gururaja, Kaori Harano, Ikenaga Toyotake, & Haruo Kobayashi (2011). Effect of yoga on mental health: Comparative study between young and senior subjects in Japan. *Int J Yoga.* 4(1): 7–12.
4. Fox, S. I. (2006). *Human Physiology*, Mac Graw Hill: New York.
5. George, F. (1989). *The Yoga Sutra of Patanjali*, Inner Traditions, India.
6. Hema (2003). *Yoga for Health*, Chennai: Tara Yoga Publications.
7. Karthikeyan, R. (2015). Influence of Asana with Meditation on Selected Hematological Variables among Residential Professional college students. *International Journal of Recent Research and Applied Studies*, 2, 2(8), 35 - 38.
8. Manchanda, S.C. & Madan, K. (2014). Yoga and meditation in cardiovascular disease. *Clin Res Cardiol.* 2014 Jan 25.
9. Manimakalai K.M. and S.Chitra, (2011). Effect of Yogasanas Practice on Flexibility among University Women”, *Recent Trends in Yoga and Physical Education*, Vol. I, p.53.