



The Effect of Specific Yoga Programme on Selected Bio-Chemical Variables of Working Women

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Abstract

The present study is to analyze the effect of specific yoga programme on selected bio-chemical variables of working women. For this study 40 working women were selected from different colleges in Coimbatore city. The age of the subjects were ranged from 30 to 40 years. They were divided into two equal groups namely, specific yoga group and control group. The subjects were tested to find out the vital capacity and blood pressure. HDL, LDL and hemoglobin were tested using blood test. The specific yoga group participated in specific yoga practice for the period of twelve weeks and control group did not participate in any special practice. The data were collected before and after the training period and the pretest and posttest were analyzed by 't' test. The level of significance for the study was chosen as 0.05. It is concluded from the results that the specific yoga practice group have significant improvement in HDL, LDL and hemoglobin.

Keywords: HDL, LDL, Yoga, Working Women.

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Introduction

The term 'yoga' is a common word in the Sanskrit language, the language in which most of the yoga scriptures are written. It also happens to be one of the most versatile Sanskrit terms having a whole range of meaning that extend from 'simple union' to 'team,' 'constellation,' and 'conjunction'. It is derived from the verbal root 'yuj' meaning 'to harness, yoke, prepare, equip, and fasten. Yoga is the science of right living and as such is intended to be incorporated in daily life. It works on all aspects of the person, the physical, vital, emotional, psychic and spiritual.

Yoga is an ancient scientific method which deals man how to lead one's own life in unity within him and with those surrounded him. It is believed as one of the most vital and important culture of India. More than 2000 years ago our forerunners developed it to bind the body, mind and spirit, as a harmonious whole. Nowadays, the whole world is looking towards yoga for answers to the various problems of the human beings. Yoga means the experience of oneness or unity with inner being. It is not a religion but a good method by which one obtain control of one's latent power and to reach a complete self- realization and are education of one's mental processes, along with the physical. In the age of modern science and information technology, and changing world scenario with Global warming, our lifestyle becomes fast and also becoming stiff and

complicate to live and lead with natural and normal life.

Yoga has existed in some form for thousands of years. Its history which can be traced back to the time of the vedic culture – around 2800 BC – is closely entwined with the Hindu religion. Yoga which is closely associated with Hinduism and other tradition including Buddhism, Jainism and Tantra is best described as a spiritual rather than a religious practice. This means that anyone can practice yoga, it can be incorporated into a religious belief or it can be practiced alone as a form of secular spirituality. Yoga provides humankind not only with a spirituality path but also with a method for "right living" a set of moral ethical and practical guidelines that help one to live a balanced and healthy life. It is not surprising that as yoga gained in popularity, the yoga research literature has also grown. A bibliometric analysis of the biomedical journal literature involving research on the clinical applications of yoga revealed an increase in publication frequency over the past 3 decades with a substantial and growing use of randomized controlled trails (scientifically rigorous studies in which the participants are randomly assigned to a therapy or a non-therapy group) (Khalsa, 2004).

Methodology

The objective of this study is to find out the effect of specific yoga programme on selected bio-chemical variables of working women. It is hypothesized that there is a significant difference between specific yoga programme group and control group on the selected bio-chemical variables of working women. For this study 40 working women were selected from different colleges in Coimbatore city. The age of the subjects were ranged

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did not participate in any special practice. The data were collected before and after the training period and the pretest and posttest were analyzed by 't' test. The level of significance for the study was chosen as 0.05.

Results

Table I. Significance of mean gains & losses between pre and post test scores on selected variables of specific yoga programme group

S.No	Variables	Pre Test mean	Post Test mean	Std. Dev	Std. Er. of mean	't' ratio
1	High density lipoprotein	45.125	49.240	1.109	0.248	16.581*
2	Low density lipoprotein	143.630	128.410	8.380	1.873	8.122*
3	Hemoglobin	11.210	14.010	1.650	0.369	7.585*

*Significant (Table value for 0.05 level for $df(1,19) = 2.093$)

An examination of table I indicates that the obtained 't' ratios are 16.581, 8.122, and 7.585 for High density lipoprotein, Low density lipoprotein and Hemoglobin respectively. The obtained 't' ratios on all the selected variables are found to be higher than the required table value of 2.093 at 0.05 level of significance

for 1, 19 degrees of freedom. So, it was found to be significant. The results show that the specific yoga programme is statistically significant. Pre and post-test mean difference of the specific yoga programme group on selected bio-chemical variables are given in figure I.

Figure I. bar diagram showing the pre and post test mean differences of the specific yoga programme group on the selected bio-chemical variables

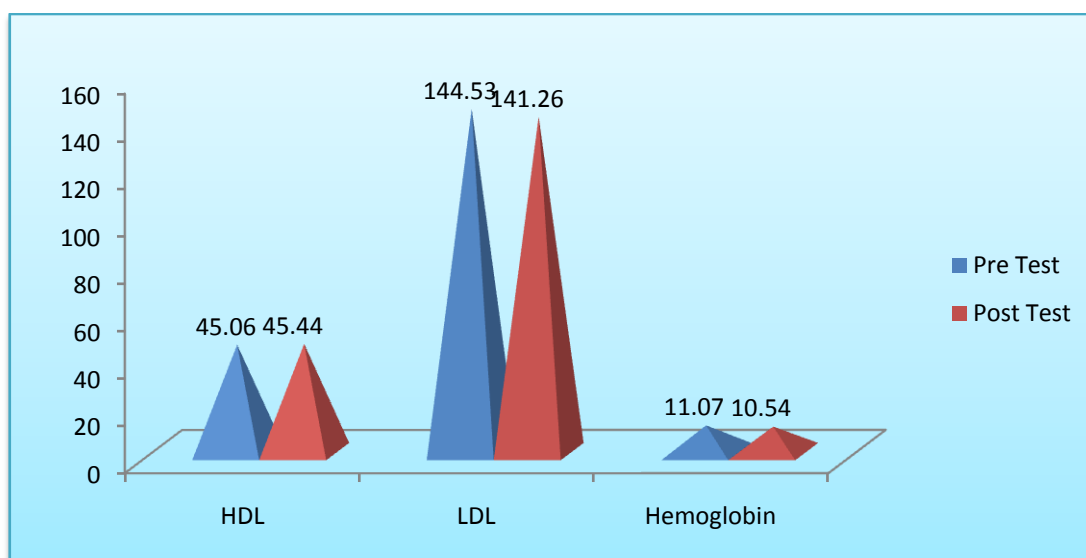


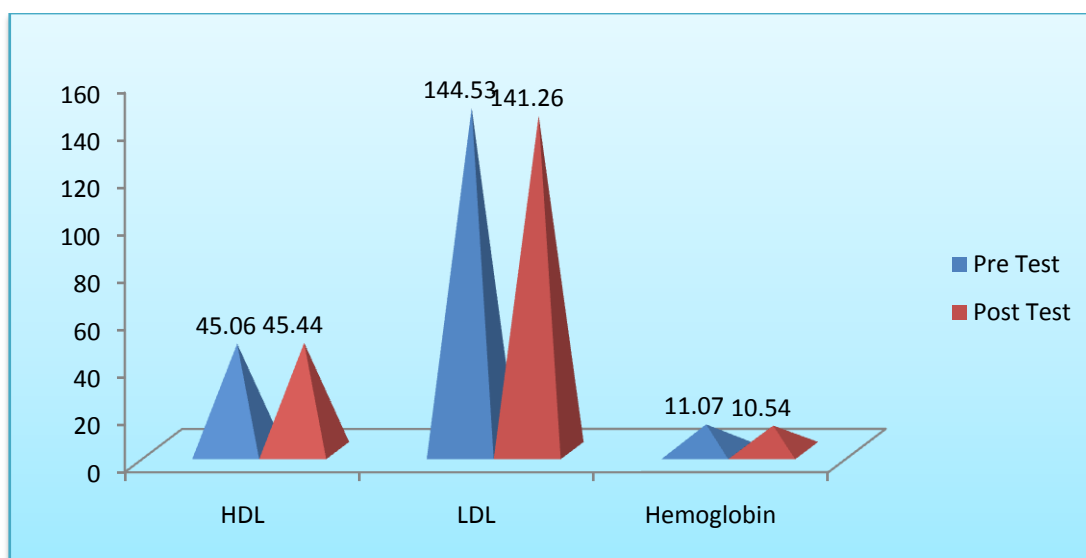
Table II. Significance of mean gains & losses between pre and post test scores on selected variables of control group

S.No	Variables	Pre Test Mean	Post Test Mean	Std. Dev	Std.Er. of Mean	't' ratio
1	High density lipoprotein	45.065	45.446	1.962	0.438	0.868
2	Low density lipoprotein	144.530	141.260	13.821	3.090	1.056
3	Hemoglobin	11.070	10.540	1.392	0.311	1.702

*Significant (Table value for 0.05 level for $df(1,19) = 2.093$)

An examination of table II indicates that the obtained 't' ratios are 0.868, 1.056, and 1.702 for High density lipoprotein, Low density lipoprotein and Hemoglobin respectively. The obtained 't' ratios on all the selected variables are found to be higher than the required table value of 2.093 at 0.05 level of significance

for 1, 19 degrees of freedom. So, it was found to be significant. The results show that the specific yoga programme is statistically significant. Pre and post-test mean difference of the specific yoga programme group on selected bio-chemical variables are given in figure II.

Figure II. Bar diagram showing the pre and post test mean differences of the control group on the selected bio-chemical variables

Conclusions

1. It was concluded that power yoga practice group significantly increased HDL and hemoglobin among middle aged men.
2. It was also concluded that power yoga practice group significantly reduced LDL among middle aged men.

References

1. Georg Feuerstein. (2002). *Yoga and other Hindu Traditions*, The Yoga Tradition, Motilal Banarsidass Publishers, Private Limited, Delhi. P.P. 82-90.
2. Gregor Machle. (2008). *Astanga Yoga Practice and Philosophy*, The Mental Processes arising from the afflicting are to be counteracted by Meditation, New Age Books, A-44 Naraina, Phase-I, New Delhi. P.P. 53-67.
3. Ishwar, Sr. & Basavaraddi, V. (2010). *Yogic Practice – Relaxation techniques and practices leading to Yoga Meditation*, Yoga in School Health, Moraji Desai National Institutul of Yoga, Ashok Road, New Delthi, India, P.P. 251-267.
4. Marian, E. Papp. (2013). Increased heart rate variability but no effect on blood pressure from 8

- weeks of hatha yoga – a pilot study. BMC Research Notes.
5. Michele Marie Desmarais. (2008). *A Brief Over View of Yoga*, Changing Minds, Motilal Banarsidass Publishers, Private Limited, Delhi. P.P. 10-22.
 6. Nagendra, Dr. H.R. (2005). *All Organs and Systems in the Body*, Yoga (Vol. 4), Raja Yoga – The Path of Will Power, Swami Vivekananda Yoga Prakashana, Bangalore, Karnataka, India. P.P. 52-63.
 7. PallavS engupta. (2008). *Health impacts of yoga and pranayama*. Scientific Research in yoga, Motilal Banarsidass Publishers, Private Limited, Delhi. P.P. 14-18.
 8. Prakash S, Meshram S, & Ramtekkar U. (2007). Athletes, yogis and individuals with sedentary lifestyles; do their lung functions differ, 51(1):76-80.
 9. Swami Venkatesananda. (2010). *The Seven Stages of Yoga*, The Supreme Yoga, MotilalBanarsidass Publishers, Private Limited, Delhi. P.P. 361-366.
 10. Yogi Svatmarama. (2008). *Hatha Yoga Pradipika*, MotilalBanarsidass Publishers, Private Limited, Delhi. P.P. 34-48.