



Research article

EFFECT OF SIMPLIFIED KUNDALINI YOGA ON SELECTED HAEMOTOLOGICAL VARIABLES OF COLLEGE WOMEN STUDENTS

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Abstract

The purpose of the study was to find out the effect of simplified kundalini yoga practices on selected haematological variables of college women students. To resolve the purpose of the study 40 college women were randomly selected from Kumaraguru Institute of Technology, Coimbatore. Their age ranged between 18 and 22 years. The selected subjects were randomly divided into two groups consisting of twenty each. No attempt was made to equate the groups. Experimental Group I underwent simplified kundalini yoga practices for a period of 16 weeks. Group II acted as control group (CG) and were not engaged in any training programme other than their work. The subjects were free to withdraw their consent in case of feeling any discomfort during the period of their participation but there was no dropout during the study. The haematological variables namely Leucocytes count and Hemoglobin were selected and tested through TCDC and Shalis blood analyzer test respectively. Pre and post tests were conducted in all the variables. 16 weeks of simplified Kundalini yoga practices were given to the experimental group for a period of 16 weeks. Dependent t test was used to determine the significant difference between the treatment means. Simplified kundalini yoga practice group had significantly increased Leucocytes count and Haemoglobin whereas the control group had no significant increase in all the variables.

Key words: Simplified Kundalini yoga practices, Leucocytes count and Haemoglobin

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INTRODUCTION

The most important aim of our lives should be to maintain good health. Many people take their health for granted and abuse their bodies with a sedentary life style, bad diets, medications and high stress factors. Every person, due to genetic weaknesses, is susceptible to certain ailments that if not prevented can lead to serious illnesses. When energy is depleted in the body the organs become weak and they cannot function properly. The natural equilibrium will be disturbed and a disorder can develop. Genetic factors will dictate which particular disorder may develop and which organ might be affected. Some people may be prone to a certain condition such as diabetes, cancer, peptic ulcers and heart disease. Yoga acts preventive measures to disease by reducing stress level, keeping the internal organs toned and healthy and maintaining a balanced equilibrium between the physical, mental and spiritual level. The emphasis is to unite the system with a combination of breathing techniques, gentle exercise and mind control. This produces a tranquility that penetrates deep into the mind and soul. It improves the health of the person on all levels (VimalaLalvani, 2003).

Women who are employed play a vital and multiple roles. The need for a balance, both at home and work place is important. Women tend to be care givers and out of the sense of duty, they have a hard time justifying behaviour that are “just for themselves” such as exercise, recreation and relaxation (Fogoros, 2009).

Women with her multiple role in the

family, career and society faces tremendous challenge in her everyday life. Increase in lifestyle standards, more of convenience food consumption and recreation with reduced physical activity has made women the victims for cardiovascular disease. The mortality rate among women suffering from cardiovascular disease is also higher than that of men across the world, including India (Roger and Menthal, 2006).

PRACTICE OF KUNDALINI YOGA

The practice of Kriyas and meditations in Kundalini Yoga are designed to raise complete body awareness to prepare the body, nervous system, and mind to handle the energy of Kundalini rising. The majority of the physical postures focus on navel activity, activity of the spine, and selective pressurization of body points and meridians. Breath work and the application of bandhas(3 yogic locks) aid to release, direct and control the flow of Kundalini energy from the lower centers to the higher energetic centers.

Along with the many kriyas, meditations and practices of Kundalini Yoga, a simple breathing technique of alternate nostril breathing (left nostril, right nostril) is taught as a method to cleanse the nadis, or subtle channels and pathways, to help awaken Kundalini energy.

Sovatsky (1998) adapts a developmental and evolutionary perspective in his interpretation of Kundalini Yoga. That is, he interprets Kundalini Yoga as a catalyst for psycho-

spiritual growth and bodily maturation. According to this interpretation of yoga, the body bows itself into greater maturation, none of which should be considered mere stretching exercises.

Yoga

Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter into supreme reality. It is a science by which the individual approaches truth. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. Yoga has the surest remedies for man's physical as well as psychological ailments. It makes the organs of the body active in their functioning and has good effect on internal functioning of the human body. Yoga is a re-education of one's mental process, along with the physical.

Yoga asana are psychophysical practices to culture body and mind. Yoga practices are known to significantly improve health status, and reduce stress and anxiety (Ross and Thomas, 2010).

Yoga has been practiced in India for over two millennia. Stories and legends from ancient times testify to the existence of yoga, and to the practitioners and divinities associated with it. Indian literature is a storehouse of knowledge about yoga covering every conceivable level. Roughly in chronological order are the Vedas (books of scriptural knowledge), the Upanishad (Philosophical cosmologies), and their commentaries; then the Puranas (ancient cosmologies), and the two epics, the Ramayana and the Mahabharatha. The

Mahabharatha contains within itself that master piece of Indian scripture the Bagawad Gita. Towards the end of Vedic period comes the aphoristic literature, with the "yoga Aphorisms" of Patanjali of special interest to yoga students. Besides, whole bodies of works both ancient (Pre-Christian) and more modern with various aspects of yoga and yoga philosophy, testifying to the continued relevance of yoga as a discipline (Mira Mehta, 1998).

Methodology

The investigator used pre and post test random group design in this study. This procedure involves dividing the sample into two groups based on random selection. The investigator did not make any attempt to equate the groups in this study. The selected forty subjects were divided into two groups consisting of 20 each such as Experimental Group I and a Control Group. The treatment was administered to the experimental groups for a period of sixteen weeks. At the end of 16th week the post test were administered to both the groups.

The haematological variables namely leucocyte count and haemoglobin were selected and tested through TCDC and Shalis blood analyzer test respectively. Pre and post tests were conducted in all the variables. 16 weeks of simplified Kundalini yoga practices was given to the experimental group for a period of 16 weeks. Dependent t test was applied to find out the significant difference between the pre test and the post test.

The following training programme was given for the experimental group for a period of sixteen weeks

TRAINING SCHEDULE
SIMPLIFIED KUNDALINI YOGA SCHEDULE

Training schedule: The training schedule of simplified kundalini yoga practices ;

(1)The practices for the **first five** weeks in the Evening (4.45 to 5.45) were as follows;

| Experimental group I | | | | | |
|--|------------------------------------|------------------|---------------------------------|------------------|---------------------------------------|
| Simplified Kundalini yoga Physical Exercise | | | | | |
| Sl. No. | Name of practice | Frequency | Duration of the practice | Rest time | Total duration of the practice |
| A | Meditation | | | | |
| 1 | God prayer | 6 days | 1 minute | - | 20 Minutes 30 sec |
| 2 | Guru worship | 6 days | 1 minute | - | |
| 3 | Nadisudhi | 6 days | 4 minute | - | |
| 4 | Thanduvadasudhi | 6 days | 4 minute | - | |
| 5 | Agna meditation or shanthi | 6 days | 10 minutes | 30 sec | |
| B | Physical exercises | | | | |
| 1 | Loosing exercise | 6 days | 2 minutes | 30 sec | 39 Minutes 30sec |
| 2 | Hand exercises | 6 days | 5 minutes | 30 sec | |
| 3 | Leg exercises | 6 days | 5 minutes | 30 sec | |
| 4 | Neuro muscular breathing exercises | 6 days | 5 minutes | 30 sec | |
| 5 | Eye exercises | 6 days | 4 minutes | 30 sec | |
| 6 | Kapalabathi | 6 days | 4 minutes | 30 sec | |
| 7 | Makarasanam – I & II | 6 days | 6 minutes | 30 sec | |
| 9 | Relaxation | 6 days | 5 minutes | ----- | |
| | | | | Total | |

2) Practices for **the second five weeks** in the Evening (4.45 to 5.45) were as follows;

| Experimental group I | | | | | |
|--|--|------------------|---------------------------------|------------------|---------------------------------------|
| Simplified Kundalini yoga Physical Exercise | | | | | |
| Sl. No. | Name of practice | Frequency | Duration of the practice | Rest time | Total duration of the practice |
| A | Meditation | | | | |
| 1 | God prayer | 6 days | 1 minute | - | 21Minutes 20 sec |
| 2 | Guru worship | 6 days | 1 minute | - | |
| 3 | Nadisudhi | 6 days | 3 minute | - | |
| 4 | Thanduvadasudhi | 6 days | 3 minute | - | |
| 5 | Agna meditation or shanthi or thuriyam | 6 days | 13 minutes | 20 sec | |
| B | Physical exercises | | | | |
| | Loosing exercise | 6 days | 2 minutes | 20 sec | 38 Minutes 40 sec |
| 1 | Hand exercises | 6 days | 3 minutes | 20 sec | |
| 2 | Leg exercises | 6 days | 3 minutes | 20 sec | |
| 3 | Neuro muscular exercises | 6 days | 3 minutes | 20 sec | |
| 4 | Eye exercises | 6 days | 3 minutes | 20 sec | |
| 5 | Kapalabathi | 6 days | 4 minutes | 20 sec | |
| 6 | Makarasanam – I & II | 6 days | 5minutes | 20 sec | |
| 7 | Massage | 6 days | 3 minutes | 20 sec | |
| 8 | Acu pressure | 6 days | 7 minutes | | |
| 9 | Relaxation | 6 days | 3 minutes | | |
| | | | | Total | 60 min |

3) Practices for **the third six** weeks in the Evening (4.45 to 5.45) were as follows;

| Experimental group I | | | | | |
|--|--|------------------|---------------------------------|------------------|---------------------------------------|
| Simplified Kundalini yoga Physical Exercise | | | | | |
| Sl. No. | Name of practice | Frequency | Duration of the practice | Rest time | Total duration of the practice |
| 1 | Meditation | | | | |
| A | God prayer | 6 days | 1 minute | - | 26 minutes |
| B | Guru worship | 6 days | 1 minute | - | |
| C | Nadisudhi | 6 days | 2 minute | - | |
| D | Thanduvadasudhi | 6 days | 2 minute | - | |
| E | Agna meditation or shanthy or thuriyam | 6 days | 20 minutes | | |
| 2 | Physical exercises | | | | |
| | Loosing exercise | 6 days | 1 minutes | 10 sec | 34 minutes |
| A | Hand exercises | 6 days | 3 minutes | 10 sec | |
| B | Leg exercises | 6 days | 3 minutes | 10 sec | |
| C | Neuro muscular exercises | 6 days | 3 minutes | 10 sec | |
| D | Eye exercises | 6 days | 3 minutes | 10 sec | |
| E | Kapalabathi | 6 days | 3 minutes 30 sec | 10 sec | |
| F | Makarasanam – I & II | 6 days | 5 minutes | 20 sec | |
| H | Massage | 6 days | 2 minutes | 10 sec | |
| I | Acu pressure | 6 days | 6 minutes | | |
| J | Relaxation | 6 days | 3 minutes | | |
| | | | | Total | 60 minutes |

RESULTS

The collected data were analysed using dependent t test and the results were given below

TABLE - I
SIGNIFICANCE OF MEAN GAINS & LOSSES BETWEEN PRE AND POST TEST SCORES ON SELECTED VARIABLES OF SIMPLIFIED KUNDALINI YOGA GROUP

| S.No | Variables | Mean | | Mean difference | SD (\pm) | | σ DM | 't' Ratio |
|------|------------------|-------|-------|-----------------|--------------|--------|-------------|-----------|
| | | Pre | Post | | Pre | Post | | |
| 1 | Hemoglobin | 11.28 | 14.98 | 3.69 | 1.15 | 0.72 | 0.22 | 16.15 |
| 2 | Leucocytes count | 6530 | 9515 | 2985 | 1043 | 491.26 | 199 | 14.94 |

* Significant at 0.05 level

An examination of table-I indicates that the obtained 't' ratios were 16.15 and 14.94 for haemoglobin and leucocyte count respectively. The obtained 't' ratios on the selected variables were found to be greater than

the required table value of 2.861 at 0.05 level of significance for 19 degrees of freedom. So it was found to be significant. The results of this study showed that statistically significant and explained its effects positively.

TABLE - II
SIGNIFICANCE OF MEAN GAINS & LOSSES BETWEEN PRE AND POST TEST SCORES ON SELECTED VARIABLES OF CONTROL GROUP

| S.No | Variables | Mean | | Mean difference | SD (\pm) | | σ DM | 't' Ratio |
|------|------------------|-------|-------|-----------------|--------------|------|-------------|-----------|
| | | Pre | Post | | Pre | Post | | |
| 9 | Hemoglobin | 12.25 | 12.07 | 0.18 | 1.94 | 1.62 | 0.13 | 1.32 |
| 10 | Leucocytes count | 6540 | 6542 | 2.50 | 1062 | 1091 | 28.20 | 0.089 |

* Significant at 0.05 level

An examination of table-II indicates that the obtained 't' ratios were 1.32 and .089 for haemoglobin and leucocyte count respectively. The obtained 't' ratios on the selected variables were found to be lesser than the

required table value of 2.861 at 0.05 level of significance for 19 degrees of freedom. So it was found to be insignificant. The results of this study showed statistically insignificant.

DISCUSSION ON THE FINDINGS

The prime intention of the researcher was to analyse the effect of simplified kundalini yogic practices on selected haematological variables among college women. The simplified Kundalini yogic practices group had significantly improved in leucocyte count and haemoglobin.

Simplified kundalini yoga helps women to maintain their health and wellness. The below mentioned study is a research proof. Alamelu (2013) studied the effect of Vethathiri Maharishi's Simplified Kundalini Yoga (erstwhile Manavalakkalai Yoga). The study was conducted on 40 adolescent girls' subjects suffering with menstrual problems. They

were divided into two groups each with 20 subjects. The group-I was given training for six weeks of Makarasana Part -A, Part-B and Kayakalpa Practice of Simplified Kundalini Yoga Practices and the group-II was given no training was given. The bio-chemical variables of total cholesterol, LDL decreased and HDL increased.

CONCLUSION

Within the limitations and on the basis of the findings of the study, it was very clear that sixteen weeks of simple Kundalini yoga practices produced significant changes in leucocyte count and haemoglobin of college women.

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