

Influence of Suriyanamaskar on Selected Physiological Variables of School Athletes

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1. Introduction

Yoga is an Indian spiritual path aimed at achieving the union with the Supreme Consciousness. Some yoga's go beyond it and aim at the spiritual transformation of the entire human nature and obtaining immortality even for the physical body. A practitioner of Yoga is called a Yogi (male) or Yogini (female). Outside India, yoga is mostly associated with the practice of asanas (postures) of HathaYoga or as a form of exercise. Many Hindu texts discuss aspects of yoga, including the Vedas, Upanishads, the Bhagavad Gita, the Yoga Sutras of Patanjali, the Hatha Yoga Pradipika, the Shiva Samhita and various Tantras. Classified by the type of practices, the major branches of yoga include: Hatha Yoga, Karma Yoga, Jnana Yoga, Bhakti Yoga, and Raja Yoga. Raja Yoga, established by the Yoga Sutras of Patanjali, and known simply as yoga in the context of Hindu philosophy, is one of the six orthodox (āstika) schools of thought. The Sanskrit term yoga has many meanings. It is derived from the Sanskrit root yuj. "to control", "to yoke", or "to unite". Common meanings include "joining" or "uniting", and related ideas such as "union" and "conjunction". Another conceptual definition is that of "mode, manner, means" or "expedient, means in general".

2. Methodology

The selection of subjects, selection of variables, selection of tests, orientation of the subjects, tester's competency, Collection of the data, instrument reliability, and reliability of the data, pilot study, training programme, test administrations, experimental design and statistical procedure were followed as per the norms.

Selection of Subjects

The purpose of the study was to find out the effect of Suryanamaskar on selected physiological variables of school Athletes. To achieve this purpose thirty male students studying in the Government Higher Secondary School, Mambakkam were selected as subjects with the age group between 14 to 16 years. They were divided into two equal groups (N=30) and each group consisted of 15 subjects. Group - I underwent Suryanamaskar exercise and group - II acted as control. The training period for the experimental group was six weeks and control group who did not participate any special training apart from the regular curricular activities.

Tests Selection

S. No	Variables	Test Items	Measurements
1	Resting pulse rate	Pulse rate/min.	Numbers
2	Breath Hold Time	Holding the Breath for maximum duration	Numbers
3	Respiratory rate	Expirograph	Numbers

Training Programme

During the training period, the Suryanamaskar practice group underwent the training programme for six days per week for six weeks. Every day the workout lasted for 15 to 20 minutes. Subjects in group - II as control were instructed not to participate in any strenuous physical exercise and specific training throughout the training programme. However, they performed regular activities as per the curriculum.

The training programmes carried out at Government Higher Secondary School, Mambakkam used for the study. The subjects underwent the respective programmes as per the schedules under the supervision of the investigator. Each training session was conducted only in the morning time at 6 A. M. to 7 A. M. All the subjects involving in the training programmes were questioned about their stature throughout the training period. None of them reported injury. However, muscle soreness and fatigue were reported in the early weeks, which subsided later.

There are 12 names of lord Sun that need to be chanted during the entire exercise. One name/prayer before commencement of each round. Each round consists of 12 postures/positions and there are 12 rounds.

Position 1



Stand with your feet together and palms folded in front of your chest. Close your eyes and chant the Mantra **Om Mitrayah Namaha**. .. breath normally.

Position 2



Raise your arms over your head and shoulders with the palms touching each other and biceps touching your ears. Stretch your abdomen as much as possible and lean backwards. Inhale and chant **Om Khagaya Namaha**...

Position 3



Bend forward and place your palms at the side of your feet touch the knee with your forehead and exhale deeply, while chanting **Om SuryayaNamaha...**

Position 4



Take one leg back and place the other leg in the front with palms firm on the ground. Raise your head and inhale, while chanting **Om Bhanuvae Namaha...**

Position 5



Bring the leg that was in front next to other one and keep the hips off the floor, with your hands supporting the body in a push - up position. Exhale and chant **Om Ravi Namaha. . . .**

Position 6



Lower your knees, chest and forehead, with your palms firmly on the ground next to your chest and elbows bent upwards. Hold the breath here and chant **Om PushnaeNamaha. . .**

Position 7



Lower your waist and raise your upper body. Look upwards and keep your arms straight. Inhale and chant **Om Hiranya - GarbhayaNamaha. . . .**

Position 8



Raise your hips and bring your head to the floor with eyes on the navel and heel on the floor - like an inverted V. Exhale and chant **Om MarichiyeNamaha. . . .**

Position 9



In this step the posture is the same as in step 4, Inhale and chant Mantra **OmAdityayaNamaha...**

Position 10



In this step the posture is the same as in step 3. Exhale while chanting **Om SavitreNamaha. . .**

Position 11



In this step the posture is the same as in step 2. Inhale and chant **Om ArkayaNamaha. . .**

Position 12



In this step the posture is the same as in step 1. Breathe normally and chant **Om Bhaskaraya Namaha.**

3. Conclusion

- 1) It was concluded from the results of the study that there was a significant difference and significant improvement on respiratory rate after the Suryanamaskar training when compared with the control group.
- 2) The results of the study indicated that there was a significant improvement in resting pulse rate after the Suryanamaskar training.
- 3) It was also concluded from the results of the study that there was a significant difference and significant improvement on breath holding time after the training period.

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