

Is Yoga Beneficial as an Exercise Practice? A Case Study among the Secondary School Students and Teachers in the Schools of Kerala

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Abstract

Yoga is an art of healthy living. Yoga leads to the union of individual consciousness with that of the Universal Consciousness, indicating a perfect harmony between the mind and body, Man and Nature. The aim of Yoga is Self-realization, to overcome all kinds of sufferings leading to 'the state of liberation' (Moksha) or 'freedom' (Kaivalya). But the modern Yoga has become like the Ship of Theseus. It has moved away from the classical traditions and as taught by the masters like Patanjali. Hatha Yoga has gained superiority over all other practices and it has become a mere physical activity. It has moved away from the original beliefs and practices.

Today, modern Yoga has brought many elements from modern fitness training and gymnastics. Moreover some the practices developed in the later period mainly by Hath Yogis are highly unscientific and may bring adverse effects. The asanas that are practiced today have nothing to do with the original yoga, the original which is a method for practising mediation. Several asanas like Sarvangasana, Sirsasana deceive human body and make the practitioners believe that they have brought desired result. The study is based on a survey conducted among secondary school students and teachers, how they responded to different physical exercise practices. It proves that Yoga as an exercise practice is less useful than the

modern fitness techniques. It throws light on the need to employ scientific practices to the daily routine of students and teachers and frame a rational policy regarding co-curricular activities

Keywords: Yoga, Asanas, Fitness, Exercise, Science, Sports Policy

Yoga is basically a spiritual discipline which focuses mainly on meditation to bring harmony between mind and body. It is an art of healthy living. The word 'Yoga' is derived from the Sanskrit root 'Yuj', meaning 'to join' or 'to yoke' or 'to unite'. As per Yogic scriptures the practice of Yoga leads to the union of individual consciousness with that of the Universal Consciousness, indicating a perfect harmony between the mind and body, Man and Nature. One who experiences this oneness of existence is said to be in Yoga, and is termed as a yogi, having attained to a state of freedom referred to as mukti, nirvana or moksha. Thus, the aim of Yoga is Self-realization, to overcome all kinds of sufferings leading to 'the state of liberation' (Moksha) or 'freedom' (Kaivalya). Living with freedom in all walks of life, health and harmony shall be the main objectives of Yoga practice (Basavaraddi, 2015).

The Yoga practice is said to have its origin in the very beginning of Vedic civilization. Presence of Yoga is available in folk traditions, Indus valley civilization, Vedic and Upanishadic heritage, Buddhist and Jain traditions, Darshanas, epics of Mahabharat and Ramayana, theistic traditions of Shaivas, Vaishnavas, and Tantric traditions. In addition, there was a primordial or pure Yoga which has been manifested in mystical traditions of South Asia. This was the time when Yoga was being practised under the direct guidance of Guru and its spiritual value was given special importance (Basavaraddi, 2015).

The word Yoga appears in a few times in *Rig Veda*, in a general context to signify joining, or yoking one thing to another, i.e., body and mind and connecting with the supreme power

(Griffith, 2013). In the beginning, the word had no spiritual significance but later acquired a religious colour. But in later commentaries on Vedas, the Yoga practice was mentioned as used by the ascetics. In *The Kata Upanishad/ Katopanishad* which is written around 800 BC, contains reference on Yoga in the context of Death, mentioning it as a means to leave behind worldly pleasures and attain moksha. In all these Vedic literatures, no reference is made regarding the body postures (Roebuck, 2004).

In *The Shvetashvatara Upanishad*, an upright body posture is recommended to control mind by restraining of the breath. *The Maitri Upanishad* describes a six-fold Yoga, similar to what we can find in the *Yoga Sutras* of Patanjali; however there is no mention of any Asanas (Roebuck, 2004). In the *Bhagavat Gita*, three paths of Yoga are mentioned, i.e., Karma Yoga, Bhakti Yoga, and Jnana Yoga. Here meditation and breath control is mentioned; still body postures are absent (Bhaktivedanta Swami, 2010). Moreover, there is no reference available regarding Yoga as a health practice in *The Charaka Samhita* and *The Sushruta Samhita*.

It is Patanjali's *The Yoga Sutras* that introduces Yoga as a practice for meditation and the four chapters in the book presents different levels in which Yoga can be applied. They are Samadhi Pada (a blissful state/ feeling of oneness), Sadhana Pada (comprises Kriya Yoga and Ashtanga Yoga which stresses practice), Vibhuti Pada (abilities of a yogi), and Kaivalya Pada (Moksha/ liberation). Patanjali has propounded the famous Eight-fold Path of discipline, which shows a way of living in the world and how to interact and behave in society. For him, Yoga is "chitta vritti nirodha", i.e., taming all emotions, make body and mind still and waveless and attain a blissful state. All he says is sit in a steady and comfortable position and simply meditate (Bryant, 2018).

Patanjali states some don'ts in the practice of Yoga. There are some obstacles for its fruitful practice. They include illness/ disease, apathy, doubt, carelessness, fatigue/ laziness, overindulgence, hallucination, feeling of failure/ loss, and instability. If one suffers from any of these obstacles, he/she should not practice Yoga. Moreover, till 15th and 16th centuries, Yoga has been remained as a mean of meditation following Patanjali and no asanas or physical exercises have been the part of Yoga.

It is after *The Hatha Yoga Pradipika* written by Svātmārāma that Yoga evolves into a pack of gymnastic style exercises. Hatha Yoga is associated in popular tradition with the Yogis of the Natha Sampradaya through its traditional founder Matsyendranath. Nath tradition has extensive Shaivism-related theological literature of its own, most of which is traceable to 11th century AD or later (Mallinson, 2011). For them, an accomplished guru, or a Yoga and spiritual guide, is considered essential. Their unconventional ways challenged all orthodox premises, exploring dark and shunned practices of society as a means to understanding theology and gaining inner powers (Jones & Ryan, 2007).

After Hatha Yogis, a number of asanas are added to the Yoga. The three seminal texts of Hatha Yoga, *The Hatha Yoga Pradipika*, *The Gheranda Samhita*, and *Shiva Samhita* introduced a number of postures in the practice of Yoga. The Hatha Yogis added a physical dimension to the Yoga as different from the concept put forward by Patanjali. This version has attained popularity after 15-16th century AD. By 19th century, the Yoga has become the Ship of Theseus far removed from the original Yoga principles. Swami Vivekananda was against Hatha Yoga since it diverts man's attention to his physical body and thus may harm his spiritual growth. He wrote four Yoga books: *Jnana Yoga*, *Bhakti Yoga*, *Karma Yoga*, and *Raja Yoga*.

It is the Wadiyar dynasty in Karnataka which popularized the Hatha Yoga in the 19th and 20th centuries. Krishnaraja Wadiyar III has written *Sritattvanidhi*, a treatise in the 19th century, on the iconography and iconometry of divine figures in South India. One of its sections includes instructions for, and illustrations of, 122 Hatha Yoga postures. The ‘Yoga’ that is practiced today with a number of asanas and breath control has been originated only in the first half of the 20th century.

The grandson of Krishnaraja Wadiyar III, Krishnaraja Wadiyar IV has played a crucial role in the promotion of today's Yoga that is basically Hatha Yoga. He invited Tirumalai Krishnamacharya who is known as the father of modern Yoga to the Mysore Palace and through him Hatha Yoga has been flourished. Later his three disciples, B. K. S. Iyengar, K. Pattabhi Jois, and T. K. V. Desikachar developed their own versions of Yoga called Iyengar Yoga, Ashtanga Yoga, and Viniyoga. Another famous practitioner of Hatha Yoga during 20th century is J. G. Gune who is associated with the Indian independence movement, a friend of B. G. Tilak and Sri Aurobindo. He tried to initiate pride in India's cultural heritage and promoted Yoga in the West.

Another ruler who promoted Yoga was B. S. Pant Pratinidhi, the ruler of the princely state of Aundh of British Raj. He was a devoted bodybuilder and practitioner of the exercise method of Eugen Sandow, the father of modern bodybuilding. It was the king who invented the Surya Namaskar and incorporated into modern Yoga as exercise. Hence modern Yoga, that is practised today, is based on Hatha Yoga and modern European bodybuilding exercises and gymnastics.

The critics of modern Yoga call it as the Indian choking game. The choking game is done by restricting the blood flow to the brain and suddenly releasing to produce a high. Some of the

asanas which involves breath control is like the choking game. Breathing in and holding breath is done to increase the level of oxygen in the body. But it is unscientific; it actually reduces the level of oxygen and increases the level of carbon dioxide.

When the brain is deprived of oxygen, it induces a lucid, semi-hallucinogenic state called hypoxia. The short term, rapid deep breathing in Yoga lowers the level of CO₂ in blood. Hence hyperventilation causes an increased concentration of CO₂ and respiratory acidosis. Though hyperventilation does not lead to a respiratory arrest, it can be a precursor to hypoxia. It is this state of hallucination that is introduced as the meditating effect of modern Yoga.

VO₂ Max is the scale used in modern science to rate how effectively the heart, lungs, and muscles can use oxygen during exercise, and used as a way of measuring a person's individual aerobic capacity. Modern medical science prescribes aerobics, strengthening, and stretching as the three-fold path to fitness. Yoga involves only stretching and therefore we can see that it does not do any significant contribution to one's body fitness. Moreover, the stretching in the Yoga can be sometimes dangerous that may lead to sprain or dislocation. Mel Robin in his book *A Physiological Handbook for Teachers of Yogasana* gives scientific explanation of how the brain and heart may be deceived by practicing asanas like Sarvangasana, and Sirsasana, and give the practitioner a feeling of wellness (Robin, 2002).

This study aims to analyse the practice and its consequences of Yoga among the secondary school students and teachers in Kerala. Teachers follow Yoga practices in schools to promote individual discipline and character development. The students among the secondary level, who are involved in any sport item and the students who are brilliant at their studies follow Yoga asanas in the hope of developing physical as well as mental skills. The following data is based on the engagement of students and teachers in practising Yoga.

Objectives of the Study

The following objectives are framed to evaluate the study:

1. To explore the practise of Yoga among the secondary school students and teachers
2. To examine various asanas practiced by the subjects
3. To identify the kinds of risks involved in the practice of Yoga
4. To find out the merits of practising asanas
5. To examine the demerits and health risks of stretching exercises in Yoga
6. To study the frequency of the practise
7. To evaluate and study the effect of stretching exercises among the sports students
8. To evaluate the instructions and guidance the students receives from trainers
9. To evaluate the usability of asanas to increase the learning level

Data Analysis

1. Distribution of Questionnaire to the Population

Since the population is unknown, a number of 385 respondents have been taken. The respondents are classified into two categories as students and teachers, and the table shows the number of the students and teachers taken into account for the study.

Group	Number of Questionnaire Distributed	Number of Questionnaire Received	Percentage
Students	300	290	96.6
Teachers	100	95	95
Total	400	385	96.25

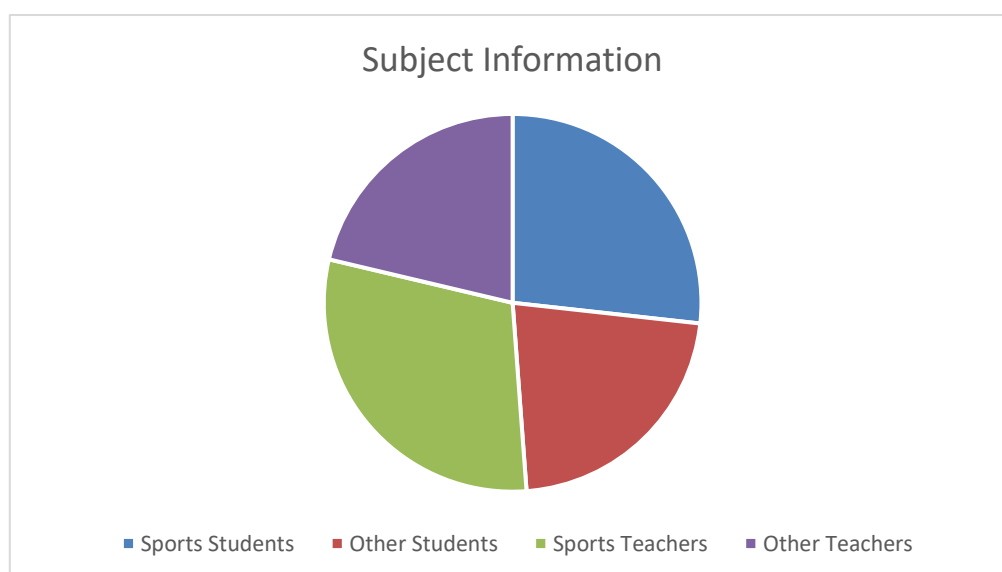
As the table shows, 96.25% of total respondents replied to the questionnaire in students and teachers categories. The random sampling covers a total the population of 400 of which 96.25% (i.e. 385) in total is taken into account for the study.

2. Subject Information

Group	Male	Female	Total	Percentage
Sports Students	62	41	103	26.75%
Other Students	32	53	85	22.07%
Sports Teachers	94	21	115	29.88%
Other Teachers	52	30	82	21.30%
Total	240	145	385	100

The above table represents the different groups and the sports teachers are actively engaged in the practise of Yoga by 29.88% than the next sports students group with a 26.75%; and remaining students have 22.07% participation, and the teachers of other subjects are of 21.3%.

The following pie chart conveniently illustrates the statistical data:



3. Practice of Stretching Exercises and Aerobics

Type of Exercises	Sports Related	Others	Total	Average
Aerobics	84	24	108	28.05%
Strengthening Exercises	23	32	55	14.29%
Yoga Stretching	62	76	138	35.84%
Breathing Exercises	28	56	84	21.82%
Total	197	188	385	100%

Based on the usage statistics given in the above table, Aerobics and Yoga Stretching are the most widely used exercise practice with 28.05% and 35.84% of total usage respectively. The breathing exercise are popular among 21.82% and the strengthening exercises are done by the least number of people having only 14.29% of popularity.

4. Advantages in Curricular/ Co-curricular Activities

Type of Exercises	Sports Related	Others	Total	Beneficiaries in the Total Number
Aerobics	78	16	94	24.42%
Strengthening Exercises	23	24	47	12.21%
Yoga Stretching	54	32	86	22.34%
Breathing Exercises	12	18	30	7.79%
Total	167	90	257	66.76%

Based on the usage statistics given in the above table, 66.76% of respondents have gained advantages from doing regular exercises. Among the sports students and physical education teachers, 84.78% have gained advantage in their sports doing regular exercises and Yoga. Aerobics and Yoga stretching are the most useful exercise practice with 92.86% and 87.1% beneficiaries. The strengthening exercises proved useful for 100% of respondents related to sports. Breathing exercises proved useful for only 42.86% of sports persons.

Among the other students and teachers, 47.87% gained fruitful results from their exercise routine and Yoga. Strengthening exercises and and Yoga stretching became the most popular exercise practices among other respondents with 75% and 42.1% beneficiaries. Aerobics proved useful for 66.67% of respondents who are not related to sports. Breathing exercises proved useful for only 32.14% of respondents who are not related to any sports or games.

Findings

The above study and data analysis brought out some of the findings and inferences on the Aerobics, strengthening exercises, and Yoga among the secondary school students and teachers in Kerala.

- The popular exercises among the sports persons are Aerobics and Yoga stretching that improve their flexibility.
- The popular exercises among the other respondents who are not directly related to any sport are yoga stretching and breathing exercises.
- Breathing exercises are more popular than strengthening exercises among both categories, while aerobics is the least popular method among the ordinary respondents.
- After practicing these exercises regularly, the individuals related to sports have changed their opinion slightly and said that breathing exercise could not help them.
- After practicing these exercises regularly, the individuals not related to sports have found Yoga stretching could not help them in improving their curricular activities. Moreover, they have found breathing exercises in Yoga as the least useful.
- Among the respondents, 33.24% are not interested in practising any exercise regularly.

Conclusion

The above study of exercise pattern of secondary school students and teachers practising aerobics, strengthening exercises, Yoga stretching, and breathing exercises shows that physical activities help the sports person to perform well while the Yoga stretching exercise and breathing exercises have little influence for the ordinary respondents in their curricular performance. The lack of interest among the ordinary respondents towards aerobics shows unhealthy lifestyle among students and teachers. Among the respondents, 33.24% have no plan to follow a regular exercise pattern and they remain apathetic. The sports persons have found the Yoga stretching useful to attain flexibility, while ordinary respondents have found much a lesser advantage in practising it. Both the sections have found the holding of breath and releasing exercise in Yoga as the least useful technique. It neither helped the sports persons to improve their fitness nor the ordinary respondents to improve their mental abilities.

The study proves that Yoga stretching as an exercise pattern complements the aerobic activities and strengthening exercises that are done by sports persons. But Yoga stretching is least helpful for the ordinary people to improve physical abilities. Moreover, breathing exercises practised in modern Yoga, like Pranayama, or asanas like Sirsasana, which is scientifically wrong and which may put the practitioner in danger, have become the unpopular practice. It throws light on the need to employ scientific practices to the daily routine of students and teachers and frame a rational policy regarding co-curricular activities.

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