INTRODUCTION

Yoga is a science of right living and it works when integrated in our daily life. It works on all aspects of the person, the physical, mental, emotional and spiritual. The word yoga means ‘unity’ or ‘oneness’ and is derived from the Sanskrit word ‘yuj’ which means ‘to join’.

Yoga is an ancient science, which originated in India. Yoga includes diverse practices such as physical postures (Asanas), regulated breathing (Pranayama), meditation and lectures on philosophical aspects of yoga. Pranayama has been assigned a very important role in yogic system of exercises and is said to be much more important than yogasanas for keeping a sound health. With increased awareness and interest in health and natural remedies, yogic techniques including pranayamas are gaining importance and are becoming acceptable to scientific community. There are several type of pranayama derived from the “bellow” used by the blacksmith to keep his coal furnace alive.

The word Yoga automatically calls to mind Sage "Patanjali" the founder and father of Yoga. He lived around three centuries before Christ, and was a great philosopher and grammarian. He was also a physician and a medical work is attributed to him. However this work is now lost in the pages of time.

Physically, Pranayama appears to be a systematic exercise of respiration, which makes the lungs stronger, improves blood circulation, makes the man healthier and bestows upon him the boon of a long life. Physiology teaches us that the air (Prana) we breathe in fills our lungs, spreads in the entire body, providing it with essential form the body, take them to the heart and then to the lungs, which throws the useless material like carbon dioxide out of the body through the act of exhalation. If this action of the respiratory system is done regularly and efficiently, lungs become stronger and blood becomes pure.

In this way, the inefficient functioning of the lungs affects the process of blood purification. Heart weakens because of this with a constant possibility of untimely death. It is for this reason that the importance of Pranayama has come to be recognized, for a healthy long life. Several diseases can be averted by regular practice of Pranayama. Hence, it is obvious that the knowledge of the science of Pranayama and its regular practice enables a man to lead a healthy
and long life. It is for this reason that in several Hindu religious rites, Pranayama is found to have been introduced as an essential element.

It is a popular belief that the four hundred or so adivasi communities of India, representing about 7% of the population, are some sort of primitive remnant of early Homo sapiens. The them Adivasi means Adi = beginning or earliest time, vasi = resident of. The idea is that the adivasi’s were the original inhabitant of India. This term entered in sue after the independence of India only. They are also called ‘Tribal’s’. The adivasi’s have remained relatively free during the pre-colonial time from the control of outside status. This process was changed by an influx of traders, money lenders and landlords who established themselves under the protection of the colonial authority and took advantage of the new judicial system to deprive the adviasi’s of large tracts of their land in this way, outsider who had dealt previously with the advasi’s on terms of relative equity become their exploiters and masters,. There are doubts, however, that the advasis are the original inhabitants of India. There have been many migrations in and out of this region in the past centuries and the present ADIVASI’S almost certainly displaced other groups at some earlier stage of history.

Generally, we have seen that rich and middle class children get better facility and opportunities i.e., proper education, food, exercise and guidance etc. But the Adivasi (Tribal) belonging to tribal areas is always lacking these facilities for the development of their child.

**Statement of the problem**

However, most of the people do not have the habit of breathing deeply with the result that only one-fourth part of the lungs is brought in to action and 75 % remains idle. Like the honeycomb, lungs are made of about 73 million cells, comparable to a sponge in their making. On normal breathing, to which we all are accustomed, only about 20 million pores in the lungs get Oxygen, whereas remaining 53 million pores remain deprived of the benefit, with the result that they get contaminated by several diseases like tuberculosis, respiratory diseases and several ailments like coughing, bronchitis etc.

Every Child has its own potentialities for growth, development and efficiency but due to facility and opportunities, Adivasi children are notable to develop themselves. Since Yoga helps
to develop overall personality, it is assumed that all these Adivasi children will be benefited on overall health related fitness through yoga.

Therefore, with the need of each human being for Cardio-Respiratory problems, The researcher selected this topic entitled “Effects of pranayama on Cardio-Respiratory function and psychological efficiency of tribal students in government ashram high school” for research.

**Delimitation of the study**

Since this study has a large scope, it has been decided to delimit the study as follows:

1. The study will be delimited to the boys and girls of Tribal Ashram high schools Nanded District (Maharashtra State).
2. The study will be delimited to the age group 11 to 14 years.
3. Measurement of Cardio-Respiratory function will be restricted to Respiratory rate, Vital Capacity, Breath Holding Capacity, PEFR, and Chest Expansion Psychological Efficiency its use on Tribal Ashram high schools boys and girls.
4. The intervention will be delimited to selected yogic exercise Selected Pranayama.
5. The experimental period delimited to 8 weeks only.

**Limitations**

1. It was not possible to control the day to day activities of the subjects selected for the experiment.
2. Although the students are clinically healthy, their food habits and style of daily living could not be controlled by the investigator.
3. The follow-up study of the experiment could not be extended further due to the paucity of time.
4. The present investigator could not conduct the experiment on large sample due to insufficient manpower and limited financial resources.
5. The subjects of the experimental and controlled group are totally ignorant and had no background of yoga exercise.
**Objective of the study:**

The objectives of the present study are as follows.

1. To measure Cardio-Respiratory function level of the Tribal Government high school boys and girls of age 11 to 14 years.
2. To render regular training program of Pranayama training to the selected experimental subjects.
3. To evaluate the efficiency of stimulus Pranayama on cardio-respiratory function as assessed by the standard cardio-respiratory function test.
4. To justify the inclusion of Pranayama activities in the physical education curriculum of the schools in India.
5. To justify the inclusion of the stimulus pranayama as an alternative training programme for the maintenance and development of Cardio-Respiratory function of government ashram high school boys and girls.
6. To promote the utilization of the stimulus (yogic breathing exercise i.e. Pranayama) during off-season in sports training scheduling.

**Hypothesis**

The investigator has formulated following hypotheses.

H$_1$: Pranayama Training (Yogic breathing exercise) may be help to improve the Cardio-Respiratory function and Psychological Efficiency of tribal boys & girls students in government ashram high school.

H$_2$: The training of Pranayama may be significantly effects on Cardio-Respiratory function Psychological Efficiency of tribal boys & girls students in government ashram high school.

H$_3$: The Cardio-Respiratory function of control group may have no significance difference between pre-test and post-test.

**Definition of important terms**

**Pranayama**
The word Pranayama consists of two words ‘Prana’ and ‘Ayama’ here prana means breath and ayama refers to stretch, extension, expansion, length of breath, regulation, prolongation etc. the literal meaning of Pranayama is controlled Breathing. The aim of practicing Pranayama is to stimulate, regulate and harmonize vital energy of the body. Just as a bath is required for cleaning the body, so also pranayama is required for purifying the mind.

**Cardio-Respiratory Function**

Cardio Respiratory Function is the group of functions which starts with inhalation of Oxygen through upper respiratory tract and continuous throughout life by supplying it with all nutritive products to micro cellular level through blood circulation.

**Psychological efficiency**

The psychology of efficiency hinges on a right idea of your goods and how to get that right idea across to a prospective buyer’s mind. This resolves itself into the following formula: How to sell the true idea of your best capabilities in the right field or market. This operates in the following order: (1) Develop your best capabilities to the highest possible degree. (2) Learn to describe them truly so that you can present them and sell them, so that the prospective buyer will get a correct idea of what you can do. (3) Identify your market. Find the right field for your goods or services. (4) All that is left to do is to deliver the goods, to make the prospective purchaser know that you are the person for the place, or that your goods will better fill his needs than any others.

**Mental health**

Mental health are changing. It used to be that a person was considered to have good mental health simply if they showed no signs or symptoms of a mental illness. But in recent years, there has been a shift towards a more holistic approach to mental health.

Today, we recognize that good mental health is not just the absence of mental illness. Nor is it absolute – some people are more mentally healthy than others, whether you are mentally ill or not. These realizations are prompting a new kind of focus on mental health that identifies components of mental wellness and mental fitness and explore ways to encourage them.
Government Ashram High School

The schools for tribal students in the remote areas of the state run by the Social welfare department of the Government of Maharashtra.

**Significance of the study**

1. The observation made in the study would be helpful to those who are concerned with training and coaching to formulate specific training program in relation to fitness aspect, cardio-respiratory function.
2. The findings to the present study may be beneficial to the concerned professionals to know whether there is any effect of stimulus of Pranayama a yogic breathing exercise on Cardio-Respiratory function of school boys and girls.
3. The study may highlight the importance of 8 weeks intervention for inclusion in any future experimental designs.
4. The result of this study may contribute to the importance of the inclusion of yogic exercise for attainment of the objectives of physical education.