INTRODUCTION

The human body is similar to a machine. If mistreated and not properly maintained, the machines will malfunction and cease to run efficiently. Our bodies are similar, in proper maintenance fosters deterioration of the numerous physiological systems within the body. It is a vital issue now to discuss that physiological have expressed that physical exercise improves and promotes the efficiency of the whole organism and is essential for the proper functioning and maintenance of all the systems of the body. A balanced programme of physical fitness is of profound importance to the life of an individual. There is scientific evidence that neglect of regular activity mainly during adolescence cannot be fully compensated later on in life.

Yoga is universally benefiting all people of all ages. The study of yoga is fascinating to those with a philosophical mind and is defined as the silencing of the mind's activity which leads to complete realization of the intrinsic nature of the Supreme Being. It is practical holistic philosophy designed to bring out profound state of well as an integral subject. This takes in to consideration man as a whole. The aim of yoga is to devise ways and means of helping to better emotion and intellectual concentration.

The word yoga is derived from the root “YUJ” or yoke that means union or merger (to bend together or concentrate). The merger of soul with god and the experience of oneness with him are meant by yoga. The state of Samadhi can be attained through yoga. “The withdrawal of sense organs from the worldly objects and their control is yoga”

Vethathiri (1985) states “Yoga is a systematic physical practice to improve awareness, to develop will power and to realize self, join traditional consciousness (jecvathama) to super consciousness (permathama)”
Aerobic exercises and yogic practices are essential in promoting a balanced physical and mental state in human being. This is because of the various physiological systems in our body such as nervous system, circulatory system; glandular system, muscular system etc. become slowly conditioned to maintain harmony with each other by these practices which ultimately lead to the stability of the body and mind. An attempt is made in this study to have a searching inquiry by way of comparing the effects of physical exercise, yogic practice independently and also combined on selected physiological variables in case of high school boys. Further, it was aimed to find out which of the experimental factors was comparatively more effective. In this regard.

Dhanaraj (1974) studied the effects of yoga and a fitness plan on selected physiological parameters. The result, after practice of yoga, indicated an increase in vital capacity, chest expansion, breath holding time and body flexibility; but there was a decrease of the heart rate.

Chinnaswamy (1992) observed that hemoglobin content and blood sugar level were improved significantly with the effect of asana and aerobic exercises, whereas the pulse rate and diastolic pressure had been lowered in resting condition. However, there was no significant change in systolic pressure.

Chlocking (1963) found that pulse rate and respiratory rate were decreased significantly after the training period regardless of the training programmes prescribed.

Udupa et al. (1971) selected twelve subjects and imparted yoga practices for a period of three months, and found that the pulse rate decreased significantly. Krishnan (1971) observed that due to selected Bharathiym exercises and yogic practices pulse rate was decreased significantly and breath-holding time, cardiovascular efficiency and vital capacity improved significantly.
Kneer (1982) has stressed that significant ability difference among education class exist as a common occurrence and that these differences are due to innate motor ability fitness. Neurological development, psychological traits, experience, level of mastery of a specific sports and student interests and goals. She indicated that traditional practice has been to direct instruction towards the ability of the average. Student and to try in some way “to challenge the advanced student and to remediate the less capable”. She discussed ways to improve this situation by identifying student abilities providing them with equal opportunity to benefit from an educational programmes, and adjusting the physical education curriculum and applying instruction so that ability differences can be best be served.

Yogic asanas are placed in the beginning of the yogic curriculum, i.e. first in Hatha Yoga and third in Astany Yoga by patanjali. Asanas are physical practices to prepared body and mind in such a way that necessary equilibrium (Samatvam) is established in overall functions it is short of reconditioning of psychophysiological mechanism of the body as a whole.

Dasai (1979) 14 made a study “effect of Asanas on skill development in basket ball”. Two group of 20 students each were selected at the random from a list of students enrolled in 11th and 12th standard of Rajendra P.T. Patil Science College, Higher Secondary in Vallabhi Vidyanagar District Kheda Gujarat State, group a has basket ball skill for an hour each day of for a period of six weeks. They are also instructed to practice a prescribed series of Asana for half an hour after this lesson in basket ball skill and group was taught basket ball skill, the same day as for group A except for practice of Asana after basket ball skill practice. AAHPER Basket ball skill tests for boys were administered at the beginning of the experimental period.
Desai concluded that practicing selected asanas with proper techniques after skill practice improved the efficiency of learning shooting skill and dribbling in basket ball when passing skill are not influence.

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Yogic asanas (yogic postures) appears to have been devised to specially influence and rehabilitate the vital organ, proper receptor, vestibular canal and perception and the tone of the muscles.

More (1984) when the asanas is perform in yogic way and maintained easy and effortlessly, various muscles tendons and joint are stretched smoothly and pleasantly. This static stretching with relaxation is known as passive stretching where the stretching of muscles and tendons do not cross the natural limits and limits and therefore there is no strong reflux contraction of the muscles, on the contrary muscles may surrender easily to such passive stretching, offering no resistance. There is no question of muscular tension, on the other hand the muscle tone remain at its optimum level or even gets reduced to a great extent depending upon muscles involved in which pattern of posture. We know that the muscle tone is basis of posture and gets 'influenced by emotional or psychological state of an individual. When the muscle tone is reduced due to the passive stretching of joints and muscles, it has get a soothing or tranquilizing effect on the nerves. There is absence of the internal disturbances (Vikshepas) or clashes (Dvandvas) and one can overcome instability (Angameja Yatava) in the body and mind. Internal awareness in such relaxed and stable posture not only tranquilizes the mind but also
condition it through the postural reflex cerebellum-hypothalamus functional axis. The sympathetic activity is withdrawn and parasympathetic activity restores the stability of various levels. Now the body start telling the mind through various sensations which are perceived from proprioceptors and are integrated by lower centers involuntarily. That is why a long term effect of such performance is seen on the behavioral pattern of the individual.

Yogic practices and physical exercise are essential for the development of wholesome personality of the child that would depend upon the opportunity provided for wholesome development of the mental, physical, social, and spiritual aspects. Hence a well organized and properly administered physical education programme for school children is very essential to improve the physiological variables. This is because of various physiological systems in our body such as nervous system, circulatory system; glandular system, muscular system etc. become slowly conditioned to maintain harmony with each other by these practices which ultimately lead to this stability of the body and mind, an attempt is made in this study to have a searching inquiry by way of comparing the effects of physical exercise, yogic practices, independently and also combined on selected psycho-physiological variables on school boys age ranged from 15-18 years. Further it is aimed to find out which of the experimental factor was comparatively more effective in this regard.