CHAPTER I

INTRODUCTION

"When you are fit, you look better, feel better and are likely to have more physical energy; when you feel fit; the good things of life have more meaning: The sky is bluer, the music sweeter, the steak tastier."

J.PERCIVAL

Modern world is the outcome of many scientific inventions through centuries. Scientific instruments and machinery have helped to lead the daily life with ease and comfort. The modern man depends mostly upon the scientific equipment for his daily routine, involving mainly his mental powers to have a comfortable life, resulting in fall and deterioration in his physical health and capacity. Modern man need not toil like his forefathers in his daily life. So he has become less vigorous and less active. The inactivity and pressure of work result in stress, which is on the increase in the urban areas. Fatal cardiac arrests affect even youngsters in their early thirties. It is here the concept and the initiative for games and physical exercises become useful. The twentieth century man is not even a chip of the giants that bestrode the world till the end of the last century.

Added to the woeful inadequacy of level of physical exercises, the mental stress is on the increase. Now the world is shrinking into a global village thanks to
many internet challenges. It is a highly competitive world the man has to live in, so mental stress takes a heavy toll on his health. So for a man to be fit, he has to not only resort to physical exercises, but also to yoga practices to give rest to his over worked mind.

1.1 HEALTH

The World Health Organization defined health as a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity and fitness as the ability to perform muscular work satisfactorily and the Centers for Disease Control defines it as a set of attributes that people have or achieve that relates to the ability to perform physical activity. (Kapur and Batiga, 1994) A recent consensus conference also defined fitness, in a broad sense, so as to include both physical fitness and physiological fitness, which extends to biological systems influenced by the level of habitual physical activity. (Gutin, 1992)

1.2 HEALTH CARE SYSTEMS IN INDIA

Healthcare in India is the responsibility of constituent states and territories of India. The Constitution charges every state with "Raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties". The National Health Policy was endorsed by the Parliament of India in 1983 and updated in 2002 (National Health Policy, 2002)
The art of Health Care in India can be traced back nearly 3500 years. From the early days of Indian history the Aryurvedic tradition of medicine has been practiced. During the rule of Emperor Ashoka Maurya (third century B.C.E.), schools of learning in the healing arts were created. Many valuable herbs and medicinal combinations were created. Even today many of these continue to be used. During his rein there is evidence that Emperor Ashoka was the first leader in world history to attempt to give health care to all of his citizens, thus it was the India of antiquity which was the first state to give it's citizens national health care.

According to the World Health Organization 900,000 Indians die each year from drinking contaminated water and breathing in polluted air. As India grapples with these basic issues, new challenges are emerging for example there is a rise in chronic adult diseases such as cardiovascular illnesses and diabetes as a consequence of changing lifestyles.

There are vast disparities in people’s health even among the different states across the country largely attributed to the resource allocation by the state governments where some states have been more successful than others. Better efforts are needed by the local governments to ensure that the health services provided are actually reaching the poor in worst-affected areas.
1.3 HEALTH RELATED PHYSICAL FITNESS

Physical fitness is a universally accepted and realized terminology. Physical fitness is a capacity to meet the present and potential physical challenges of life with success. The present concept of physical fitness is not only freedom from disease, but also to gain enough strength, agility, flexibility, endurance and skills to meet the demands of daily life and to build sufficient reserve energy to withstand stress and strain.

Fitness improves general health and it is essential for full and vigorous living. The physically fit child will be more alert and eager to do things. Children are the future citizens of our country. The wealth of a nation depends entirely upon the health of every citizen of the country. Hence physical fitness of school children is a major important factor to be considered. (Govindarajulu, 1991)

Physical fitness is an important outcome of physical education and it is physical education in the school system that is most capable of bringing it out. The physical fitness over a long span and examination of the same reflect the status of health. Physical examination assesses the growth pattern and functional efficiency of sensory and motor organs, functional efficiency of the body in terms of strength, cardio respiratory endurance, flexibility, speed, agility, balance and neuromuscular co-ordination.
Physical fitness is a combination of qualities that enable a person to perform well in vigorous physical activities. These qualities include agility, endurance, flexibility and strength. Physical fitness and good health are not the same, though each influences the other.

Physical fitness represents one of the several facts of sports and physical activity, which can have definite influences on the health and the well being of children and adolescents, as well as adults. The measurement of physical fitness raises several conceptual, methodological and technical problems, which explain why surveys including such measures have been scarce until recently. (Machaud and Narring, 1996)

The Australian Fitness Education Award reflects a health related fitness philosophy and encourages students to set personal goals by aspiring to criterion based standards of achievement rather than by comparisons to others. With a view of turning children on rather than off physical activity, Australian Council for Health Physical Education and Recreation (ACHPER) has developed a new fitness testing approach that reduced comparison with others eliminates embarrassment on focuses on learning about personal health and fitness. Helpful hints to encourage student participation and generally promote physical activity in school and community settings form an added feature of the Australian Fitness Education Award Resources.
The American Alliance for Health, Physical Education, Recreation and Dance had published two standardized tests for the schools: The health-related physical fitness test and the youth fitness test. According to AAHPERD, health-related physical fitness can be viewed thus: Physical fitness is a multifaceted continuum extending from birth to death. Affected by physical activity, it ranges from optimal abilities in all aspects of life through high and low levels of different physical fitness, to severely limiting disease and dysfunction. (Safrit, 1986).

Health-related physical fitness is important to everyone and should be stressed by physical educators and medical people alike. Health related fitness is defined as the ability to perform strenuous activity without excessive fatigue showing evidence of traits that limit the risks of developing diseases and disorders which affect a person's functional capacity. Components of health related physical fitness are identified as muscular strength, endurance, flexibility, cardiorespiratory endurance and body composition. (Nichols, 1986)

To enjoy an optimum state of health and physical fitness, exercises are quite necessary. Exercises are helpful in maintaining the sound body throughout life. Health and fitness afford the people an opportunity to live longer and they add to the quality of everyday life. (Greenberg and Pargnam, 1986)

Physical education has long believed that exercise is essential to maintain good health. During the past twenty years a great deal of evidence has been reported
by the medical researches supporting the value of vigorous exercise for the promotion of health. Health-related physical fitness components are those, development of which enrich one's health and on the other hand which are related to certain diseases. (Baumgartner and Jackson, 1987)

1.4 POSITIVE HEALTH

According to the preamble to the Constitution of the World Health Organization, 1946, “Health is a state of complete positive physical, mental, and social well-being and not early the absence of disease or infirmity.”

Positive health describes a state beyond the mere absence of disease and is definable and measurable. Positive health can be operationalised by a combination of excellent status on biological, subjective, and functional measures. By mining existing longitudinal studies, we can test the hypothesis that positive health predicts increased longevity by correcting for quality of life, decreased health costs, better mental health in aging, and better prognosis when illness strikes. Those aspects of positive health which specifically predict these outcomes then become targets for new interventions and refinements of protocol.

Positive health includes mental health (consisting of positive emotion, engagement, purpose, positive relationships, and positive accomplishments), which is something over and above the absence of mental illness, and it is quantifiable and predictive. It predicts lack of depression, higher achievement,
and—intriguingly—better positive physical health. The most important theme that
runs through the tantalizing positive physical health outcomes is a link between
positive psychology and positive health: Subjective well-being, as measured by
optimism and other positive emotions, protects one from physical illness.

The notion of positive health, which is beyond the absence of illness, can
be broken down into three kinds of independent variables: subjective, biological,
and functional. Each of these realms is quantifiable, and the combination of these
can be used to predict health targets of interest: longevity, health costs, mental
health, and prognosis. The biological measures for the most part will vary with
the medical disorder under study. The subjective measures will be similar for all
disorders under study. The functional measures may be a combination of
measures developed specifically for a disorder and measures that will be used
across all of the disorders.

**Subjective**—when a person feels great, defined by high ends of measures of
several psychological states. These states are (a) a sense of positive physical well-
being. The individual enjoys a sense of energy, vigor, vitality, robustness (as
opposed to a sense of vulnerability to disease, tenuousness of health status, health-
related anxiety); (b) the absence of bothersome symptoms, measured, for example
by the Somatic Symptom Inventory; (c) a sense of durability, hardiness, and
confidence about one’s body (as opposed to a sense of fragility, susceptibility to
disease); (d) an internal health-related locus of control so that the individual feels
a measure of control over health; (e) optimism, measured for example by the Attributional Style Questionnaire and by content analysis of verbatim materials, and confidence about one’s future health (as opposed to anxiety, bodily preoccupation, disease fear); (f) high life satisfaction, as measured for example by Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q); and (g) positive emotion, minimal and appropriate negative emotion, high sense of engagement and meaning (see the panoply of measures at www.authentichappiness.org). This domain quantifies the link between positive physical health and mental health and builds on the contribution that Positive Psychology has begun.

**Biological**—the positive ends of physiological function and anatomical structure distributions. There are biological variables relevant to health generally, such as body mass index, blood pressure, temperature, pulse rate, complete blood count, lipids/cholesterol, urine analysis, liver function tests, blood sugar, and electrolytes. For the most part, however, biological variables are specific to specific disorders, and here, for example, are ones specific to the four candidate disorders on which I suggest the new field first concentrate:

1. Biological measures of coronary heart disease and/or congestive heart failure: exercise tolerance test results, cardiac ultrasound, cardiac catheterization results (including ejection fraction).
2. Biological measures of chronic obstructive pulmonary disease; pulmonary function test (spirometry) results (including forced expiratory volume, vital capacity), arterial oxygen saturation, and chest X-ray.

3. Biological measures of osteoarthritis: skeletal X-rays, erythrocyte sedimentation rate, inflammatory cytokines, joint examination.

4. Biological measures in diabetes mellitus: blood sugar, hemoglobin A-1c, renal function (BUN, proteinuria), cardiac function (electrocardiogram), visual acuity.

**Functional**—how well does the individual function? This category includes two classes of data: first the high ends of laboratory test data such as speed of gait and choice reaction time. Such laboratory measures of positive physical capacity include exercise tolerance in cardiac disease, balance and lower extremity sensation in diabetes, activity level in pulmonary disease, flexibility, walk time and grip strength in arthritis. The second class of data is situated in the individual’s personal ecology, the “person–environment fit”—the optimal state of adaptation between one’s bodily function and the positive physical requirements and demands of one’s chosen lifestyle: work, love, and play. This entails the absence of impediments in meeting all of the demands of one’s job, family and social life, chosen activities and vocations and the presence of excellent positive physical and mental strength, energy, endurance to permit success at the chosen positive physical and mental tasks of one’s life.
1.5 JUVENILE DELINQUENCY

Different approaches have been used to define and explain the term ‘Juvenile delinquency’, like the legal approach, the social work approach, the psychological approach, and the sociological approach. The legal approach, which is based on normative formalism, tends to explain delinquency in specific terms in order to protect the public from dangerous conduct and to protect the delinquent from unjust acts by the police and the courts. The social work approach is informal and therapeutic. The psychological approach is analytical. These two approaches (i.e., social work and psychological) are primarily concerned with the welfare of the individual delinquent and attribute only secondary importance to the security of the social group in which he committed his delinquency. The social approach views the delinquent from group norms and as descriptive force in the smooth functioning of organized social life.

In the legal approach to misconduct of a Juvenile, the stress is on the following requirements: (1) that a specific charge be leveled against the defendant, (2) that it be defined in definite terms by law, (3) that the offence be proved rather conclusively, (4) that’s protection be given to the accused during trial against conviction by false, misleading, irrelevant or immaterial evidence.

In the sociological approach, the focus is on two aspects: age and conduct or status. Age is important from the point of view of maturity chronological,
mental and social. A child below a certain age is considered to be irresponsible by reason of immaturity. The ‘conduct’ concept of delinquency had evolved from an appreciation of the danger that the young offender may easily become an adult criminal if no deterrent or rehabilitative influences play upon him. Hence, the effort is to curb anti social traits in their incipience.

In terms of age, a Juvenile delinquent is considered an underage criminal, i.e., one who is between the age of 7 and 16 or 18 years, as prescribed by the law of the land. The maximum age today for Juvenile delinquents according to the Juvenile Justice Act of 1986 is 16 years for boys and 18 years for girls, but earlier, according to the Children Acts, it was different in different states. In state like Uttar Pradesh, Gujarat, Kerala, Maharashtra, Punjab, and Madhya Pradesh, it was 16 years but in states like Bengal and Bihar, it was 18 years. In states like Rajasthan, Assam, and Karnataka, it was 16 years for boys and 18 years for girls. Apart from age, the nature of offence is vitally important.

Children who are involved in ‘status offences’ such as truancy, vagrancy, immorality and ungovernability also fall within the definition of juvenile delinquents. Numayer, Ivan Nye and James Short Jr., Richard Jenkins, and Walter Reckless have also emphasized ‘type of behavior’ in the concept of juvenile delinquency. According to Walter Reckless (1956), the term ‘juvenile delinquency’ applies to the “violation of criminal code and/or pursuit of certain patterns of behavior disapproved of for children and young adolescents”. Thus,
age and behavioral infractions prohibited in the status are important in the concept of juvenile delinquency.

The ‘behavioral content’ in juvenile delinquency is important in the sense that there is a difference in the approach/attitude of judiciary and that of administrators. The judicial approach requires the proof of fairly definite offences. The administrative view, to the contrary, is that since delinquents are not criminal in character, and the courts are designed to aid children who are unadjusted, the courts should not seek to define and segregate delinquency but to discover and treat the maladjustments of children who appear before them. This raises the central issue of who should be brought before the court and who should the court adjudicate as delinquents? Is the child who has run away from home once or several times, a delinquent? Is the child who reacts rebelliously to the hostility of his step-mother at his home, a delinquent? Is the boy who stays out with his friends till late hours in the evening and causes much anxiety to this family, a delinquent? Is the boy who wants more freedom and behaves in a very independent fashion, a delinquent? How then, may one distinguish the problem child, the adventurous child, and the delinquent? To solve this problem, five categories of deviation have been set up to consider the level at which the court may take control.

1. **Deviant situational factors**, where the child is exposed to deleterious home and community influences, eg., broken home, economic insecurity, vice in
the home, unhealthy recreation, slum neighborhood, places of moral risk like cheap hotels, etc.

2. Behavioral problems of personal unadjustment to the environment; eg., temper tantrums, nail-biting, etc.

3. Antisocial attitudes wherein the child reveals reactions antagonistic to authority but without serious overt aggressiveness; eg., hostility, guilt feelings, isolation, anxieties.

4. “Waywardness” or “Incorrigibility” or the violation of relatively non-serious community conduct standards; eg., truancy, running away from home, disobedience, fighting, etc.

5. Serious illegalities or the violation of criminal conduct norms; eg., theft, burglary, rape assault, robbery, homicide.

Some scholars are of the opinion that certain types of attitudes and deviant conduct, as in the above mentioned categories 1, 2 and 3, may better be dealt with by non-judicial social agencies public or private and by non-court personnel. This, however, raises an important question. If there are no appropriate agencies in the society, such as casework organizations, psychiatric resources, etc., should the court then take over the cases of maladjustment of juveniles? In a society like India, this is indeed a crucial problem. What is needed is differentiating between
‘slight’ deviation and ‘extreme’ deviation to work out a systematic philosophy and programme for treatment.

The difference between a delinquent child and an adult criminal is important from the casework approach. The difference between the two is made in the conduct involved, in the methods employed by the court, in the philosophy and methods applied in treatment, and in the individual’s status, reputation and civil rights in the community after adjudication.

1.6 EMOTIONS

Emotion is the complex psycho-physiological experience of an individual's state of mind as interacting with biochemical (internal) and environmental (external) influences. In humans, emotion fundamentally involves "physiological arousal, expressive behaviors, and conscious experience."

(Myers, David G. 2004)

Emotion is associated with mood, temperament, personality and disposition, and motivation. Motivations direct and energize behavior, while emotions provide the affective component to motivation, positive or negative.

(Steven and McBurney.2003)

Different conditions emotions exists, like "Cognitive" versus "non-cognitive" emotions, Instinctual emotions, versus cognitive emotions,
Categorization based on duration: Some emotions occur over a period of seconds whereas others can last years.

A related distinction is between the emotion and the results of the emotion, principally behaviors and emotional expressions. People often behave in certain ways as a direct result of their emotional state, such as crying, fighting or fleeing. If one can have the emotion without the corresponding behavior, then we may consider the behavior not to be essential to the emotion.

Human sciences study the role of emotions in mental processes, disorders, and neural mechanisms. In psychiatry, emotions are examined as part of the discipline's study and treatment of mental disorders in humans. In education, the role of emotions in relation to learning is examined. Social sciences often examine emotion for the role that it plays in human culture and social interactions. In sociology, emotions are examined for the role they play in human society, social patterns and interactions, and culture. In anthropology, the study of humanity, scholars use ethnography to undertake contextual analyses and cross-cultural comparisons of a range of human activities; some anthropology studies examine the role of emotions in human activities.

We try to regulate our emotions to fit in with the norms of the situation, based on many—sometimes conflicting—demands upon us which originate from various entities studied by sociology on a micro level—such as social roles and
"feeling rules" the everyday social interactions and situations are shaped by—and, on a macro level, by social institutions, discourses, ideologies, etc. Thus, emotions focuses on general attitude changes in a population.

1.7 VALUES AND VIRTUES

A virtue is a trait or quality subjectively deemed to be morally excellent and thus is valued as a foundation of principle and good moral being. Personal virtues are characteristics valued as promoting individual and collective well being.

Virtue is a behavior showing a high moral standard and is a pattern of thought and behavior based on high moral standards. Virtues can be placed into a broader context of values. Each individual has a core of underlying values that contribute to his or her system of beliefs, ideas and/or opinions. Integrity in the application of a value ensures its continuity and this continuity separates a value from beliefs, opinion and ideas. In this context, a value is the core from which we operate or react. Societies have values that are shared among many of the participants in that culture. An individual's values typically are largely, but not entirely, in agreement with his or her culture's values.

Individual virtues can be grouped into one of four categories of values:

- Ethics (virtue - vice, good - evil, moral - immoral - amoral, right - wrong)
- Aesthetics (unbalanced, pleasing)
- Doctrinal (political, ideological, religious or social beliefs and values)
- Innate/inborn

1.8 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 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. India literature is a storehouse of knowledge about yoga covering every converging conceivable level. Roughly in chronological order are the vocals (books of scriptural knowledge), the Upanishada (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, testify to the continued relevance of yoga as a discipline (Mira Mehta, 1998).

In other systems of physical exercises, the internal organs of the body mostly do not get proper exercises, while yogic practices gives sufficient exercises to the internal organs of the body. Yoga practices have a greater impact on the mind and control the senses. Yogic practices make possible not only physical and mental development but also intellectual and spiritual development. Yoga practices are called a ‘non-violent activity’ (Sharma, 1984)

1.8.1 MEANING OF YOGA

The literal meaning of the word yoga is yoke. It means for uniting the individual spirit with the universal sprit, or God. The work yoga is derived from the roots of Sanskrit ‘Yuj’ which means to join, to attach, to bind, and yoke, and to concentrate on one’s attention.

Mahadev Desai, says in his introduction to the Gita and according to Gandhi, the yoking of all the powers of body, the mind, the emotion, the will which the yoga presupposes, it means pose of the soul which enables one to look at life in all its aspect evenly. In Indian culture or thought human beings or
everyone on this earth is guided by the supreme universal spirit, i.e., Pramatma or God of which the individual human spirit, i.e., Jivatma is a part. Yoga is a way to secure liberation (Moska) because it is the means by which the jivatma can be united to the pramatma.

The science of yoga works on physical, mental, emotional, psychic and spiritual aspects of a person. When imbalance is experienced at this level, the organs, and muscles and nerves no longer functions in harmony, rather they at in opposition to each other. Therefore yoga aims at bringing the different body functions into perfect co-ordination so that they work for the God of the whole body.

Yoga has a complete massage for humanity. It is a message for the human body, human mind and human body, human mind and human soul. (Swami Kuvalayananda, 1977)

1.9 CONCEPT OF YOGA

Although the word ‘yoga’ has many connotations, etymologically it means, “Integration:. The term “Samatava” of Bhagavat Gita conveys the same meaning. Other terms like homeostasis, equilibrium, balance, harmonious development etc. more or less suggest the same things. The aim of yoga itself is an integration of personality in its all aspects. In order to help the development of such integration, various techniques are employed. These techniques or practices
enjoined in yogic literature and handed down in different traditions also go under the name of yoga. (Gharote, 1982).

1.10 COMMON OBJECTIVES OF YOGA AND PHYSICAL EDUCATION

Health, Physical fitness and emotional stability are the objectives which bring yoga and physical education on a common platform for the benefit of human individual. Health is a more general and comprehensive term conveying the ‘felling of well being’, while physical fitness is a more specific term. Physical fitness is the capacity of an individual to perform a given task at a particular time. Health and physical fitness are not static. They are always changing. They follow ‘the law of use and disuse’. Health and physical fitness can be maintained only by carefully selected physical activities which are called ‘exercise’. The utility of the particular exercise programme can be evaluated only in terms of the effects that are obtained in promoting a particular factor or factors of physical fitness. Through constant practice of yoga, one can overcome all difficulties and eradicate all weakness. Pain can be transmitted into bliss, sorrow into joys, and failure into success and sickness into perfect health. Determination, patience and persistence lead one to goal (Ananda, 1982).
1.11 ASANA

Asana means holding the body in a particular posture to bring stability to the body and poise to the mind. The practice of asana is being purity in tubular channels, firmness to the body and vitality to the body and the mind.

Yogasanas are simple actions for keeping the internal and external parts of the body in good health. No activity can be performed well so long as the internal and external parts of the body are not in good health. The body and the mind are closely related. The people of ancient Greece believed in the principle “A sound mind in a sound body.” By practicing asanas one possesses himself from physical disabilities and mental distractions. It is a state of complete equilibrium of body, mind and spirit.

Asana means a state of being in which one can remain steady, calm, quiet, and comfortable, physically and mentally. Yogasana are practiced to develop one’s ability to sit in one position without discomfort for extended lengths of time, as this is necessary during meditation.

1.12 PRANAYAMA

Pranayama means control and regulation of breath. “Prana” is Sanskrit word which means ‘vital force’, “Ayana”, means the control of the Prana so Pranayama means the control of vital force (Prana) by concentration and
regulated breathing. Prana is the vital power or force which is motivating every element on the earth and is the origin of the force of thought. There is a deep affinity between prana and mental force, between mental force and intellect, between intellect to soul, and between soul and God. Each part of the body can be filled with Prana. Once, one is capable of performing it, one is matter of body and can dominate illness and suffering. Prana is accumulated where our mind is concentrated. As a wind drives smoke and impurities from the atmosphere, pranayama drives away the impurities of the body and mind.

1.13 MEDITATION

An ordinary person may consider meditation as a worship or prayer. But it is not so. Meditation means awareness, is meditation. “Watching your breath” is meditation; listening to the birds is meditation. As long as these activities are free from any other distraction to the mind, it is effective meditation.

Meditation is not a technique but a way of life. Meditation means “a cessation of the thought process”. It describes a state of consciousness, when the mind is free of scattered thoughts and various patterns. The observer (one who is doing meditation) realizes that all the activity of the mind is reduced to one. Traditionally, the classical yoga tests describe that attain true states of meditation one must go through several stages. After the necessary preparation of personal
and social code, physical position, breath control and relaxation come to the more advanced stages of concentration and then ultimately absorption.

1.14 BENEFITS OF YOGIC PRACTICES

Many world class sportsmen have found that the practice of yoga helps them to achieve greater skills in their sports. This is because yoga not only works on the physical level but also has benefits for the mental, emotional and energy levels. It enables them to realize that ‘winning is not everything’ and that there is ‘more to life’ than sporting ‘high’ and ‘lows’.

1. At the physical level asanas, kriyas, mudras and pranayama stabilize and balance the lop-sided physical drills necessary for sporting activity.

2. Yoga helps to develop all system of human body such as cardiovascular, respiratory, digestive, eliminative, endocrine, nervous and muscle-skeletal system thus strengthening, cleansing and purifying the body so that it is brought under our conscious will.

3. Yoga is content between our inherent inertia and the power of the will. Parts of the body are pitted against one another and a unique harmony of body, mind and breath is developed. This internal struggle when handled successfully deepens the consciousness of not only the working of the body but also of mind and emotion.
4. Yoga reduces anxiety, aggression, tension, ego weakness, guilt feelings, frustration. It brings complete changes in body and mind so that the practitioner feels fresh remarkably, relaxed and full of vitality.

5. Yoga especially pranayama causes expansion of consciousness. This helps to attain mental clarity, awareness and creativity. As a result it improves concentration, attention, memory etc.

6. Lung functions can be improved as a result of yogic exercise. Yoga is also useful for improving the breath holding time.

7. Yogic exercises are beneficial in removing postural defects and physical disabilities. Yogic training is a useful therapeutically system in managing chronic diseases.

8. Yoga prevents as well as reduces the intensity of drug abuse and alcohol addiction by decreasing autoimmune arousal

**1.15 EFFECT OF YOGIC TRAINING**

It is necessary to note that the nature of all yogic practices is psychological and physiological. Some exercises emphasizing the control of mental processes directly are more psychological. Other exercises are more physical or physiological. It is this later part of yogic practices that has become more popular and is being extensively used for the development and promotion of health and
fitness. The yogic exercise is generally different from the physical exercises and the important differences are:

1. The physical exercises are repetitive in character and utilize a lot of energy whereas yogic exercises help to conserve energy. The caloric requirement of yogic exercises is only 0.9 to 3 calories per minute depending upon the severity of exertion.

2. Relaxation forms the most important aspect of yogic exercise unlike physical exercises, during the practice of asanas, muscles which do not support weight or which are not actively involved are relaxed. With relaxation, the muscles return to normality after contraction and therefore yogic exercises keep the body more flexible. Physical exercises improve the circulation of blood in voluntary system, thereby resulting in better muscular development as a result of improved function of the muscles. Yogic exercises aim at improving blood circulation to all the vital organism thus improve their function.

3. Unlike physical exercises, in yogic exercises spine has been given an important place and various exercises for the spine aim at keeping the spine flexible and joints supple.

4. Yogic exercises influence human beings physically, mentally, socially, and emotionally whereas physical exercises have their effect mainly on
physically only. They have more positive reaction to stress, thus minimizing its ill effects.

1.16 REASONS FOR SELECTION OF THE TOPIC AND VARIABLES

Adolescent Truancy is considered one of the major factors that affect the educational system of the country. Despite of several measures being taken by Government of India and other state governments, they find it very difficult to control the school drop outs to the minimum of 20%.

“While enrolment rates for primary education are high at almost 50% of the total age group, (large percentage of) those enrolled drop out of school midway,” Mr Ahluwalia, deputy chairman of Planning Commission, said while speaking on the future perspective of planning at the Tarlok Singh Memorial Lecture organized by the Indian Institute of Planning and Administration, in Delhi. These words emphasize to urgent need for adequate steps to tolerate adolescent truancy which is one of the major factor for school drop outs in midway.

Physical Education programme which contributes for development of wholesome personality has recently adopted yogic practices as one of the effect tools for the development of wholesome man, physically, physiologically and mentally.
There are four main paths of yoga, i.e. Karma Yoga, Bhakti Yoga, Jnana Yoga and Raja Yoga, with each suited to a different temperament or approach to life. All paths lead ultimately to the same destination of union with Brahman (or) God.

The backbone of Raja Yoga is furnished by Patanjali’s Yoga Sutras thought to have been written in the third century BC. The path Raja Yoga deals with the science of physical and mental control exercises which are often called “Royal Road”. Asana or postures and pranayama or the regulators of breath form the sub division of Raja Yoga known as Hatha Yoga which forms the basis of modern practice of yoga. The classical text, Hatha Yoga Pradipika is on Hatha Yoga, the form of yoga stressing the importance of physical exercise and positions and breathing control in promoting physical and mental well being.

Researches by Reddy and Ravikumar (2001), Maity and Samanta (2001) and Tiken, Kosana, Joy and Inaobi (2002) have found that yogasana improved significantly motor fitness of girls and boys. Studies by Ray, et.al. (2001), Lohan and Rajesh (2002), Madanmohan et al., (2003), proved both physical and physiological variables of adults could be improved through yogasanas. Studies of Harinath et. al., (2004), Schell, Alloio and Schonake (1994) and Berger and David (1988) found that physiological and psychological variables could be beneficially altered among young adults. Trulson (1986) matched 34 delinquent teenage boys on age, socioeconomic background and test scores on aggression
and personality adjustment and then divided the youth into three groups and found whatever advantages or liabilities are associated with sport involvement, they do not come from sport per se, but from the particular blend of social interactions and physical activities that comprise the totality of the sport experience. Thus, apart from physical activities such as sports participation, there was need for particular blend of social interactions like yogic practices for treatment of delinquency with some success.

There is dearth of studies to find out the effect of different packages of yogasanas on selected motor fitness, physiological and psychological variables among juvenile delinquents, especially in our region.

Different methods are being adopted by different agencies to prevent adolescent truancy. However, little efforts were made to address this problem through psychological and exercise settings. Hence the investigator was interested to make an earnest attempt to find out the effect of different packages of yogasanas, namely, Iyengar Yogasana and Christina Yogasana among adolescent truants.

Health can be broken down into three kinds of independent variables: subjective, biological, and functional. Each of these realms is quantifiable, and the combination of these can be used to predict health targets of interest: longevity, health costs, mental health, and prognosis. The biological measures for the most
part will vary with the medical disorder under study. The subjective measures will be similar for all disorders under study. The functional measures may be a combination of measures developed specifically for a disorder and measures that will be used across all of the disorders. Studies have shown that juvenile delinquency is by and large due to lack of subjective, biological and functional capacities of the adolescents, which reflected in their moral behaviors.

Thus the functional variables of juveniles, for example, motor fitness variables, flexibility, muscular endurance and agility; and biological variables, for example, physiological variables, vital capacity, VO$_2$ max and cardio respiratory endurance and subjective variables, for example, psychological parameters, anxiety, aggression and self confidence influences the health conditions and moral behaviours of the juveniles. Hence, the investigator was interested to find out the influence of Iyengar yoga and Christina Yoga on these variables which would enhance the life of juvenile delinquents positively.

1.17 STATEMENT OF THE PROBLEM

The purpose of this study was to find out the effects of different packages of yogic practices on selected motor fitness components, physiological and psychological variables among juvenile delinquents.
1.18 HYPOTHESES

The following are hypothesized for this study:

1. The different packages of yogic practices, namely, Iyengar Yoga and Christina Yoga would significantly improve selected motor fitness components like, flexibility, muscular endurance and agility among juvenile delinquents than control group.

2. The different packages of yogic practices, namely, Iyengar Yoga and Christina Yoga, would significantly improve selected physiological variables like, vital capacity, VO$_2$ max and cardio respiratory endurance among juvenile delinquents than control group.

3. The different packages of yogic practices, namely, Iyengar Yoga and Christina Yoga would significantly improve selected psychological variables, such as anxiety, aggression and self confidence among juvenile delinquents than control group.

4. There may not be any significant difference between treatment groups, namely, Iyengar yoga group and Christina yoga group on selected motor fitness, physiological and psychological variables among juvenile delinquents.
1.19 SIGNIFICANCE OF THE STUDY

The study is significant in the following ways:

1. This study is unique in suggesting different packages of yogic practices among juvenile delinquents.

2. The study is unique in determining the effects of different packages of yogic practices on selected motor fitness components and physiological and psychological variables.

3. The study may help to understand the differences existed among different yogic practices on juvenile delinquents.

4. The study may help to introduce suitable yogic practices in administrating and rehabilitating the juvenile delinquents to attain total well being.

1.20 DELIMITATIONS

The study was delimited to the following:

1. This study was restricted to the juvenile delinquents only.

2. The juvenile delinquents confined in Chennai were considered for this study.

3. Boys only were selected for this study as juvenile delinquents.

4. Ninety juveniles in the age group between 14 to 17 years only were selected for the purpose of this study.
5. The selected subjects were randomly assigned into three groups consisting of 30 boys each

6. The study was restricted to the following dependent and independent variables:

**Dependent Variables**

**Motor Fitness Variables**
1. Flexibility
2. Muscular Endurance
3. Agility

**Physiological Variables**
1. Vital Capacity
2. VO$_2$ max
3. Cardio respiratory Endurance

**Psychological Variables**
1. Anxiety
2. Aggression
3. Self Confidence

**Independent Variables**
1. Twelve weeks of Iyengar Yoga
2. Twelve weeks of Christiana Yoga
1.21 LIMITATIONS

This study will be limited in the following aspects and these limitations have to be taken into consideration.

1. Socio-economic and cultural status of the subjects will not be taken into consideration.

2. Factors like nutrients, heredity, environment, life style habits and the students programme outside the college will not be taken into consideration.

3. The height and weight of the subjects will not be taken into consideration.

1.22 MEANING AND DEFINITION OF THE TERMS

1.22.1 Yoga

Yoga is a way of life which can be practiced by any human being regardless of age and condition of health. Yoga is a gaining process of control over the mind. There by improving the physiological and psychological behavior of an individual.
1.2.2 Yogic Practices

Yogic exercises are form of physical exercises. They involve stretching and contracting of part of body in a specific sequence. Yogic exercise mainly meant to the development of physical, mental and vital components of men. (Gharote, 1982)

1.2.3 Asana

Asana means holding the body in a particular posture to bring stability to the body and poise to the mind. The practices of asana bring purity in tabular channels firmness to the body and vitality to the body and the mind.

1.2.4 Pranayama

Pranayama means control and regulation of breath. “Prana” is a Sanskrit work which means ‘Vital force”, “Ayana” means the control of the prana, so Pranayama means the control of the vital force (Prana) by concentration and regulated breathing.

1.2.5 Meditation

Meditation means “a cessation of the thought process”. It describes a state of consciousness, when the mind is free of scattered thoughts and various patterns
1.22.6 Bandhas

Bandha may be defined as a particular focused and intentional action involving pressure, contraction or force on the muscles or some other bodily or sensate phenomena.

1.22.7 Mudras

Mudrās are arm, hand and body positions used in the traditions of Hinduism and Buddhism. The historic Buddha knew the use of mudrās and is often depicted using these ritual gestures

1.22.8 Iyengar Yoga

Yogacharya B.K.S. Iyengar with his intellectual and spiritual practices has masterminded the techniques which can be used by all practitioners of yoga. "Research based experience" and "experience based research" has helped him in evolving this technique which is now known as "Iyengar Yoga". Iyengar yoga is meant for all and is a way of life. The use of props, designed by Guruji, such as wooden gadgets, belts, ropes helps the practitioner to achieve perfection in any asana. Regular practice of 'Iyengar Yoga' definitely integrates the body, mind and emotions.
1.22.9 Christina Yoga

Christina Brown has 18 years yoga experience covering a wide range of traditions and has been teaching for twelve. She has had several books published, including five on yoga. The Yoga Bible is available in ten other languages and her newest book, Quick and Easy Yoga is out now. She has undertaken two extended study trips in India and studied at the Yoga Therapy Centre in London. Christina directs the Teacher Training Program at Life Source where she teaches public classes, and leads regular retreats. The yogic packages being taught by Christina Brown is considered as Christina Yoga for the purpose of this study.

1.22.10 Flexibility

Flexibility is the range of motion around a joint. Good flexibility in the joints can help prevent injuries through all stages of life.

1.22.11 Muscular Endurance

Endurance is the ability to do sports movements, with the desired quality and speed under conditions of fatigue. (Hardayal Singh, 1991).

1.22.12 Agility

Agility may be defined as the Physical ability which enables an individual to rapidly change body position and direction in the precise manner.
1.22.13 **Vital Capacity:**

The volume of air that can be moved out of the lungs after maximum inspiration is called vital capacity. *(Strukic, 1981)*

The maximal volume of air that can be forcefully exhaled from the lungs is followed by a maximal expiration.

1.22.14 **VO₂ Max**

VO₂ max is the maximum capacity of an individual's body to transport and utilize oxygen during incremental exercise, which reflects the physical fitness of the individual.

1.22.15 **Cardio respiratory Endurance**

Cardio respiratory endurance is the ability of the body’s circulatory and respiratory systems to supply fuel during sustained physical activity.

1.22.16 **Psychology**

Psychology is an academic and applied field involving the study of the mind, brain, and behavior of both human and non-human.

Psychology is a ‘science of mind’, the study of the human behaviour and personality, character traits and attitude in all its aspects: physical, psychomotor, genetic, interaction with environment, and personality.
1.22.17 Anxiety

Anxiety is a complex emotional state characterized by a general fear of bonding usually accompanied by tension. It often has to do with interpersonal relation social situation and feeling of rejection and insecurity and usually a part of anxiety. *(Lewellyn and Blucker, 1979)*.

1.22.18 Aggression

Accidental harm is not aggression, but acts that are intended to injure others are aggression, whether or not they are successful.

1.22.19 Self Confidence

Self confidence is a concept of personality, for it to grow, we need to have self worthy, and this self worthy will be sought from embracing challenges that result in the showing of success.

1.22.20 Juvenile Delinquents

Juvenile delinquent is a person who is under age (usually below 18), who is found to have committed a crime in states which have declared by law that a minor lacks responsibility and thus may not be sentenced as an adult.