Introduction

Good physique is appreciated all over the world from the beginning of our civilization, may be even before that time. When human being was not civilized, even then the people with good physique and strength were considered to be worthy to live. Because, at that time it was the “survival of the fittest”. That was the era of strength. In order to get their food, they had to be strong enough to snatch the food from others. So, to live, it was necessary to have a good physique at that time.

With the development of the civilization, fight for food had been minimized. But even though, the importance of fit and good physique was appreciated at all time. Warriors were worshipped as heroes due to their valor and glory, which was achieved in the battle field. That was the place where physical fitness and good physique were the only things to be considered. A weak person, i.e., a person with bad physique, was to be treated with pity. Even the person with obesity, would be considered as “good for nothing”. In India, even the bride was won through some tests, which proved strength and efficiency of the winners. Even different sporting event had come into being, which was based on strength and expertise. So, from the very beginning of the human race the importance of strength was understood.

Also in the present day society, fit physique is appreciated all over the world. But, to assess the extent to which physique, strength, and fitness of the present generation of youths in different countries, all over the world, have benefited from the advancements of science and technology, we have to evaluate the status of young people two centuries ago. A book entitled The Enlisting, Discharging and Pensioning
of Soldiers During the Years 1790-1819, published in 1839 by Henry Marshall, Deputy Inspector-General of British Army Hospitals, described that the 1,00,000 men who during that period enlisted on a long service contract of 21 years were a miserable lot. For a regiment, recruited in 1797 at Cork for embarkation to Buenos Aires, minimum weight was 116 lb. 9 oz (52 Kg.), minimum height 5 ft 5 1/2 in (1.66 m). Every recruit who complied with these standards was accepted, irrespective of his age. In the French army, minimum weight was 110 lb. (50 Kg.), minimum height 5 ft 2 in (1.575 m). In modern world today, many school children would thus have qualified for acceptance [155].

In modern scientific world, fit physique is appreciated overwhelmingly. But even few years back common people were not so keen to have it, or they were too much ignorant about the ways for achieving a better physique. Though, the athletes, all over the world, are running after a better physique. The theme for modern Olympic Games is “Citius, Fortius, Altius”, which means faster, stronger and higher. So, even in modern world, sports and games are related to fit physique. Therefore, athletes, all over the world, strive for better performance, and for achieving this they are in the quest for a good physique. The general trend for achieving better physique and physical fitness is to do it by means of regular physical exercises. But, for achieving better health, dietary regulation is also very much necessary. So, it is very much necessary to maintain a good physical and physiological and, as well as, nutritional status, to be an elite athlete.

Against the background of such changes as the foregoing, the favorable status of children today must be assessed. Today’s boys and girls are taller and stronger than their parents and grandparents. An average-sized high-school boy aged 17 does not
fit into the armour of Elizabethan knights in the Tower of London. There has been a steady acceleration of growth and maturation over the centuries, with a noticeable spurt during the past decades. One manifestation of this spurt is the appearance today of children and adolescents in sports such as swimming, gymnastics, ice-skating, and other athletic disciplines. Children now run the 26-mile marathon, climb the highest mountains, and participate in long-distance ski races. In 1979, two 12-year-old boys swam the English Channel; at the Pan African Track and Field Games, in Nairobi in July, 1979, a 12-year-old girl won the 1500 meter final against adult competition [155].

The corresponding opposite to the acceleration of growth is a deceleration of aging, a phenomenon representing the physiologic basis for the participation of large numbers of senior men and women in a great variety of sporting events. At the Montreal Olympic Games in 1976, more than 400 athletes over 40 years of age entered the competitions, several of them with conspicuous success. At both Moscow (in 1980) and Los Angeles (in 1984), the number of senior Olympians was even greater [155].

In the present scientific world, common people (non-athletes, sedentary) are becoming more and more conscious about the importance of a good physique. By and by, they have started to understand the necessity of having a trim athletic figure, as well as, a good physiological status for them. Moreover, there are reports that, the mood and psychological functioning can be improved in physically healthy individuals by improving their physical fitness [Sachs and Buffone, 1982]. For all these reasons, people are now tending more towards physical exercises and diet control. But, again, if these exercises are to be performed for betterment of one
individual's health, they are to be done under the close monitoring of the qualified persons and backed by scientific evidences and not acquired by sheer experience.

Group activity has started long back in India. In ancient India, physical exercises were done in groups, as well as, individually. But, the importance of group activity was appreciated well in ancient India. In different parts of India, folk dances were developed in order to perform some group activity. Not only that, if we closely watch these folk dances we shall find that they are, mostly, physical exercises in disguise. One of the results of the group activities for purely physical exercise is “Bratachari”. These group activities were engaged in body building, building up physical fitness, etc. Whatever had to be done, it had to be done by being within the group.

But with the introduction of Scout movement in India, we have entered the modern era of group activity. In the 19th century, the Scout movement has started in India. Bharat Scouts and Guides are one such organization. They want to improve the physical, as well as, the mental status of the young individuals by means of different physical and group activities. They are also taught with such activities those are beneficial to the society. But, till date, little, or no such information is obtained, whether these training schedules are appropriately formulated for the improvement of the physical, as well as, the physiological status of the young boys and girls of Bharat Scouts and Guides, i.e., whether these training schedule is really beneficial or not. Because, unless these boys and girl of growing age develop properly, they will not be able to guide others in a proper way. Moreover, the kind of activities, they are involved in, demands a very good physique and superb physical fitness.
1.1 Physical Fitness

Physical fitness is a general state of health and well-being or specifically the ability to perform aspects of sports or occupations. Physical fitness is generally achieved through correct nutrition, exercise, hygiene and rest. It is a set of attributes or characteristics that people have or achieve that relates to the ability to perform physical activity.

Before the industrial revolution, fitness was the capacity to carry out the day’s activities without undue fatigue. However with automation and changes in lifestyles physical fitness is now considered a measure of the body’s ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations.

Regular physical activity is one of the most important things you can do for your health. It can help to

- Control your weight
- Lower your risk of heart disease
- Lower your risk for type 2 diabetes and metabolic syndrome
- Lower your risk of some cancers
- Strengthen your bones and muscles
- Improve your mental health and mood
• Improve your ability to do daily activities and prevent falls, if you're an older adult

• Increase your chances of living longer

According to the World Health Organization (WHO) a sedentary lifestyle is one of the top ten causes of morbidity and mortality worldwide [13]. A lower relevance of a sedentary lifestyle was found in Northern European countries (Scandinavian region) compared to other European countries: percentages of sedentary lifestyles across European countries ranges from 43% in Sweden to 88% in Portugal [40]. In USA 78% of the population was at risk for health problems due to lack of exercise and physical activity [46]. WHO claimed in 2006 that effective public health measures were urgently required to promote physical activity and improve public health worldwide. Consequently and due to the public health burden of sedentariness governments of all western industrialised countries took initiatives to enhance a physical active lifestyle in the sedentary population.

Physical activities are basically all sports, household and leisure-time activities as well as professional work. Among these motor properties are manual dexterity, strength, agility, balance, reaction time and endurance. According to Van Heuvelen et al [47] physical fitness determines 31-47% in women and 14-34% in men of the variance in physical performance and fitness characteristics. Strength and walking endurance influence these abilities the most. Current theoretical approaches focused on psychological constructs (e.g., Transtheoretical Model, Theory of Planned Behaviour, Social Cognitive Theory) to predict physical activity have been quite
limited, at best explaining about 30% of variance in physical activity, suggesting a more comprehensive understanding of physical activity determinants is needed.

As more focus is placed on employing an ecological approach in physical activity research, ecological models have emerged for understanding this behaviour. Recently, an ecological model for physical activity behaviour has been conceptualized [42, 44]. Ecological models provide a comprehensive ecological framework from which several testable hypotheses concerning physical activity promotion have been proposed.

There has been some research supporting direct relationships between the environment and goal-directed behaviours. From Bargh and Gollwitzer’s [41] work, it seems reasonable to suggest that people with a long term goal to be physically active could be prompted to do physical activity in situations where they have continually chosen to be active over time, without cognitive mediation. This line of research however, has not been directly tested in the physical activity domain.
1.2 Body Composition

Anthropometric measurements and body composition are important tools for evaluating the health status as well as nutritional pattern of individuals (2, 3, 4). Body composition is used to describe the percentages of fat, bone, water and muscle in human bodies. Because muscular tissue takes up less space in our body than fat tissue, our body composition, as well as our weight, determines leanness. Two people of equal height and body weight may look completely different from each other because they have a different body composition. Moreover, different components of body composition not only reflect various energy balances with relation to the functional and metabolic parameters of the subject, but are also highly correlated with the cardiorespiratory fitness [4, 5, 6, 7]. Epidemiological studies indicate the coexistence of both underweight and obesity as major problems in both developed and developing countries respectively [1, 2, 3, 4, 5, 6].

Understanding the trends of overweight or obesity and underweight in adolescents is important, because it is associated with adverse effects on health and social repercussion in both adolescence and adulthood [11, 12, 13, 14]. It is suggested that adolescence is a crucial period of life, since dramatic physiological and psychological changes take place at these ages as it may constitute the last possible growth spurt [15, 16, 17]. During this stage of life the development of physiological health risk factors depends largely on the initiation of health-compromising behaviour such as poor eating and inactivity [8, 18, 19]. Studies during adolescence would add support to the primary assumptions given for early interventions to prevent risk factors of non-communicable diseases before behavioural patterns are fully established and
resistant to change [20, 21, 22, 23, 24]. The consequences of the adverse health effects of underweight and obesity are likely to be the development of hypokinetic diseases such as hypertension, cancer and Type II diabetes [25, 26, 27, 28, 29] as well as reduced health-related physical fitness [30, 31, 32, 33, 34]. Excessive fatness (determined by body mass index (BMI) - a useful surrogate of percentage body fat) is found to be negatively associated with performance tasks in which the body is projected through space, as in standing broad jump, and on tasks in which the body must be lifted in space, as in bent arm hang [30, 31, 32]. Consequently, hypokinetic diseases as well as poor physical fitness have the potential to place considerable future burden on spiralling health costs and services [27, 35]. As such, early identification of adolescents at risk is essential for prevention of adulthood obesity [36].

Body composition and anthropometry of elite athletes has been the subject of much research. The practicing athletes might be expected to exhibited structural and functional characteristics that are specifically favourable for the sport and thus separate him from the general population. Such differences in body physique might reflect

(a) genetic characteristics that have been selective in determining athletic pursuit and

(b) changes due to the conditioning effect of high level of training.
Specific physique or morphological features play a major role, arguably critical role in competition success and other physical activity. However, few studies have investigated the effect of regular exercise on Body Composition & Anthropometric Measurements in India. The present study, therefore, is an attempt to investigate the relationship of anthropometric measurements and body composition to the performance capacity.
1.3 Nutrition

The foundation of adequate growth and development is laid before birth, during childhood, and is followed during adolescence. Approximately 20% of the population, Member Countries of WHO’s South-East Asia Region (SEAR), consists of adolescents. Adolescents are the future generation of any country and their nutritional needs are critical for the well being of society. In SEAR, a large number of adolescents suffer from chronic malnutrition and anaemia, which adversely impacts their health and development. The high rate of malnutrition in girls not only contributes to increased morbidity and mortality associated with pregnancy and delivery, but also to increased risk of delivering low birth-weight babies. This contributes to the intergenerational cycle of malnutrition. [37]

In most developing countries, nutrition initiatives have been focusing on children and women, thus neglecting adolescents. Addressing the nutrition needs of adolescents could be an important step towards breaking the vicious cycle of intergenerational malnutrition, chronic diseases and poverty. Epidemiological evidence from both the developed and developing countries indicates that there is a link between foetal under-nutrition and increased risk of various chronic diseases during adulthood. A review of the nutritional status of adolescents in Member Countries of WHO’s South-East Asia Region has been undertaken to identify the nutritional problems and to suggest relevant strategic interventions for policy makers. [37]

Very few studies that provided data on nutritional status of adolescents in the Region were available. Available literature on adolescent population (sex-wise) covering
literacy rate; average age at marriage; median age at first pregnancy; pregnancy outcomes; nutrients and micronutrients consumption and deficiency and anthropometric data among numerous other parameters were studied. These were obtained from demographic survey reports, national health surveys, conference proceedings, technical reports and other published and unpublished scientific papers. [37]

Growth during adolescence is faster than at any other time in an individual’s life except the first year. Good nutrition during adolescence is critical to cover the deficits suffered during childhood and should include nutrients required to meet the demands of physical and cognitive growth and development, provide adequate stores of energy for illnesses and pregnancy, and prevent adult onset of nutrition-related diseases. [37]

A large percentage of adolescents in the Region suffer from nutritional deficiencies. Dietary intake with respect to adequate availability of food in terms of quantity and quality (particularly, the mean caloric intake), ability to digest, absorb and utilize food and the social discriminations against girls can greatly affect the adequate nutrition of adolescents. Studies in India and Bangladesh have shown deficiencies in the intake of all nutrients, particularly iron, calcium, vitamin A and vitamin C. The reported reasons are mainly the low educational level of parents and low family income. [37]

Studies conducted in different countries in the Region, reveal that nutritional deprivation affects almost all growth parameters and final adult body size resulting in
thinness and stunting. However, nutritional status of both boys and girls improved with age, showing that the effect of malnutrition is more pronounced at the time of peak growth. Obesity amongst adolescents is responsible for carrying weight-related risks like cardiovascular diseases into adulthood. An Indian study has shown that obese adolescents are more likely to develop hypertension later in life as compared to their leaner counterparts. According to a Thai study, over-consumption of calories, especially fast food, snacks and soft drinks were contributing factors resulting in obesity and female adolescents were more prone to this as compared to males. [37]

Nutritional status during school age is a major determinant of nutritional and health status in adult life. Globally, including in India, health hazards associated with undernutrition and micronutrient deficiencies remain major public health problems. In the second half of the previous century, the adverse effects of under-nutrition and anaemia on physical performance were extensively investigated in adults. Many studies showed that under-nutrition and anaemia had an adverse impact on performance and consequently led to reduction in wages for persons employed in manual labour. Numerous studies have demonstrated the adverse impact of anaemia on cognitive functions, attention span and concentration. The data indicate clearly, therefore, that under-nutrition and anaemia have an adverse impact on physical activity levels in children. [39]

The Indian school system has not yet introduced a system of anthropometric assessment of nutritional status (including body fat measurement) and physical fitness tests to identify the school-age children who require interventions for improving their physical activity. There is an urgent need for initiating such
programmes, with the short-term goal of improving physical fitness and the long term-goal of reducing cardiovascular disease risk in adult life. [39]

India is currently in the midst of a nutrition transition. There is a growing recognition that under-nutrition in childhood may also increase the risk of over-nutrition in adult life. [39]

Micronutrient deficiencies can be seen not only in under-nourished children but also among over-nourished children because consumption of vegetables and micronutrient-rich food stuffs are quite low in children. Obesity as well as anaemia / other micronutrient deficiencies have adverse effects on physical performance; the combination of these may have an even more adverse impact on physical performance than either of them alone. [39]

Physical performance is defined as the ability to perform a physical task or sport at a desired level. The main determinants of performance are physical fitness and skill. Longitudinal studies have shown that the lifestyle and physical fitness during childhood and adolescence were major determinants of lifestyle, physical fitness and freedom from non-communicable diseases in adult life. Recent studies have demonstrated that maintaining physical fitness (especially cardiorespiratory fitness) and physical activity have a favourable impact on overall health. With increasing longevity and growing concern about diabetes and cardiovascular diseases affecting Indians a decade earlier than their developed country counterparts, it is imperative that healthy lifestyles are promoted in school-age children. The focus therefore should be on increasing the use of fitness tests with a focus on cardio-respiratory
function and endurance in children, and initiating appropriate intervention in those who perform poorly in these tests. [39]

The energy required for the performance of physical work is ultimately derived from the food. It is well appreciated that the capacity of an organism to accomplish physical work deteriorates with continued calorie under-nutrition. Moreover, subnutrition delays growth during childhood as well as the onset of the adolescent growth spurt. [38]

An important variable in the physical performance of the population is the socio-economic status, especially the state of nutrition. It has also been reported that the growth differences were more closely related to home conditions than to the strictly economic status of the families [48, 49, 50]. Other experiments on work performance conducted on healthy volunteers kept in starved or semi-starved conditions were shown to cause the reduction of performance capability [51]. However, a major problem of a vast number of populations in under-developed and developing countries is the restricted protein and calorie intake from childhood. There is a paucity of literature with determinations of physical efficiency levels of adolescents who are in a continuous state of subnutrition since their childhood [38, 52, 53].

Anaemia has a serious negative impact on growth and development during adolescence. A high rate of iron deficiency anaemia is reported among adolescents in the Region. There is, however, a great disparity within the Region. There are disparities between rural and urban areas as well as in school going and non-school going adolescents. It was also observed that socio-economic status determined the
occurrence of anaemia among adolescents. Boys are as much prone to anaemia as girls in some countries. Irrespective of the severity, the prevalence of anaemia ranges between 12-100% in the South-East Asia Region. There is clear evidence of an association between plasma-serum levels of vitamin A and haemoglobin levels. Studies conducted in different settings in Bangladesh showed a high prevalence of sub-clinical vitamin A deficiency among adolescents. [37]
1.4 Scouting

Scouting (or the Scout Movement) is a movement that aims to support young people in their physical, mental and spiritual development, that they may play constructive roles in society, with a strong focus on the outdoors and survival skills. During the first half of the 20th century, the movement grew to encompass three major age groups for boys (Cub Scout, Boy Scout, Rover Scout) and, in 1910, a new organization, Girl Guides, was created for girls (Brownie Guide, Girl Guide and Girl Scout, Ranger Guide). It is one of several worldwide youth organizations.

In 1906 and 1907 Robert Baden-Powell, a lieutenant general in the British Army wrote a book for boys about reconnaissance and scouting. Baden-Powell wrote *Scouting for Boys* (London, 1908) [43], based on his earlier books about military scouting, with influence and support of Frederick Russell Burnham (Chief of Scouts in British Africa), Ernest Thompson Seton of the Woodcraft Indians, William Alexander Smith of the Boys’ Brigade, and his publisher Pearson. In the summer of 1907 Baden-Powell held a camp on Brownsea Island in England to test ideas for his book. This camp and the publication of *Scouting for Boys* are generally regarded as the start of the Scout movement.

The movement employs the Scout method, a program of informal education with an emphasis on practical outdoor activities including camping, woodcraft, aquatics, hiking, backpacking, and sports. In the own words of Robert Baden Powell: “The Out-of-Doors. Oxygen for ox’s strength. ................. Fresh air is half the battle towards producing results in physical exercise and it may advantageously be taken through
That open air is the secret of success. It is what Scouting is for – to develop the out-of-doors habit as much as possible.” [54]. Another widely recognized movement characteristic is the Scout uniform, by intent hiding all differences of social standing in a country and making for equality, with neckerchief and campaign hat or comparable headwear. Distinctive uniform insignia include the fleur-de-lis and the trefoil, as well as badges and other patches.

The two largest umbrella organizations are the World Organization of the Scout Movement (WOSM), for boys-only and co-educational organizations, and the World Association of Girl Guides and Girl Scouts (WAGGGS), primarily for girls-only organizations but also accepting co-educational organizations. The year 2007 marked the centenary of Scouting worldwide, and member organizations planned events to celebrate the occasion.
The **fleur-de-lis** or **fleur-de-lys** (plural: **fleurs-de-lis**) is a stylized lily (in French, *fleur* means *flower*, and *lis* means *lily*) or iris that is used as a decorative design or symbol. It may be "at one and the same time, religious, political, dynastic, artistic, emblematic, and symbolic", especially in French heraldry.

**Trefoil** (from Latin *trifolium*, "three-leaved plant", French *trèfle*, Italian *trifoglio*, German *Dreiblatt* and *Dreiblattbogen*, Dutch *klaver* same as clubs) is a graphic form composed of the outline of three overlapping rings used in architecture and Christian symbolism. The term is also applied to other symbols of three-fold shape.
PHYSICAL EXERCISES (BP SIX) & ACTIVITIES

INDIVIDUAL & GROUP ACTIVITIES

MARCH PAST OF GUIDES & SCOUTS