PHYSICAL FITNESS OF ADOLESCENT FROM SENAPATI DISTRICT OF MANIPUR

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Abstract

The present study aims at studying the physical fitness of adolescent boys and girls of Senapati district in Manipur by BMI. Thirty adolescent boys and thirty adolescent girls are randomly experimented and questionnaire schedule for used in order to collect the information. The result shows that majority of the adolescents were from the family's earning and income of Rs. 10,000/- - Rs 20,000/- per month . Most of the adolescents does not skipped their meals. The present study further shows that majority of the adolescents of Senapati district are in the normal range of BMI chart which shows that they are physically fit.

Key words: Adolescence, physical change, physical fitness.

INTRODUCTION

Adolescence is an important stage of development. In this, the girls start growing like women and boys like men. It is the intermediate stage between childhood and adulthood. According to Isaac," Adolescence is the period after puberty during which the self responsibility is established in the adolescents." Mary Psychologists consider adolescence to be the bridge between childhood and adulthood. It is the time of rapid development of growing towards sexual maturity, discovering one's real self, recognizing and defining personal values and achieving desired attitude, confidence, vocational and social directions so as to become a while adjusted member of the society.(Sharda et.al Page. 16 XI text)

Adolescent going through rapid physical changes take comfort from being with others going through like changes. Teenagers challenging adult standards and parental authority find it reassuring to turn for advice to friends who are in the same position themselves. Adolescents questioning their parents adequancy as models of behaviour but not yet sure enough of themselves to stand alone, look peer to show them what's in and what's out. The peer group is a source of affection, sympathy, understanding and moral guidance, a place for experimentation and a setting for achieving auto money and independence from parents. It is a place to form intimate relationship that serve as rehearsal for adult intimacy (Buhrmester and Laursen, 1996)

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Adolescents should take care of certain things for proper physical development. This is the stage of physical development. This is the time when adolescent develops physically to their optimum growth. At this stage it is very necessary to take good nutrition, so that enough protein, calcium and vitamins which are necessary for growth are made available to the adolescents (Sharda et.al. P.23 text)

Adolescent is a period when adolescent develop their body images. This depends upon the social interaction and the standards set and approval by their peers regarding physical attribute. This is the time when adolescents become aware of their physical personality and the importance of body configuration as society tending to own value beautiful bodies. Glorification ideal bodies through various competitions, advertising in magazines results in making adolescents becoming conscious of their physical potential and they want to achieve physical fitness and ideal body.

Physical fitness is not just good health, but it means achieving extra energy, greater and capacity for work and strength. Actually Physical fitness means internal equilibrium promptly after exercise. Physical fitness is a lifelong objective, but is more significant and relevant in adolescence. (sharda et.al. page 64 text case XI)   According to encyclopedia, physical fitness is defined as the " capacity of the heart, blood vessels, lungs and muscles to function at optimum efficiency"

Most eating occurs in a social context, the effort of peer influence on child eating have not been the objects of systematic experimental study.

Results from the random regression model indicate that over weight girls eating with an overweight peer consumed more kilo calories. The regression models improved when the partners food intake was entered in the model, indicating that the peers intake was a significant predictor of participants snack consumption. (Sarah, 2006 pg 22)

Body Mass Index (BMI) is the measure of relative weight, dependent on height. It is determined by dividing weight in kilogram by the squared value of height in meter as

BMI =Body Weight (kg)/ Height (m)^2

The body mass index measurement put simply, is the calculation of someone's bodyweight in relation to thin height. Measuring your BMI is another weight management method which could be added to your health Contemporary thinking in public health possess that childhood and adolescent physical fitness may in fluency health states during childhood and adolescence, as well as throughout adulthood. This paper evidence dealing with potential associate of physical activity and physical fitness in childhood and adolescence to health status during childhood, adolescence and adulthood. There generally low to moderate relationship between childhood and adolescent physical fitness and adult physical activity and

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health. Nevertheless, the trends emphasize adolescence, which into and throughout adulthood, for the health and well being of the individuals and population) . (Robert,2001)

Physical fitness is your ability to carry out tasks without undue fatigue while too much reliance on technology could make us less fit, we see that we can improve physical fitness through the performance of different exercise. Component of physical fitness is muscles strength, which is ability of a muscle or group of muscles to exert force against resistance. Having greater muscles strength enhances physical fitness because it allows you to more easily perform tasks such as pushing, pulling and lifting. Muscle endurance is yet another component of Physical fitness. It is defined as the ability of a muscle or group of muscles to exert force for extended period.

The Senapati District is located in the northern part of Manipur. The District is at an altitude varying from 1061m to 1788m above sea level. The hills run along the north south direction and gradually slope down towards south and meet the Imphal valley. Senapati District is endowed with beautiful landscape of blue hills, green valleys, serpentine streams and rivers flowing through mountains and deep gorges. Agriculture is the main occupational of the people and terrace cultivation is generally practiced by the people. Senapati is the four largest district of Manipur within the union India)The Senapati District has a total population of 2,83,621 according to 2001 census. The majority are of the Mao, Maram, Thangal, Poumai and Zeliangrong Naga Tribe. There exist minorities of ThangKhul and Maring Naga, Kukis, Nepalis and others. Manipuri is the lingua – franca on the various communities in the district. The religious make up of the city is 98% Christian and 2% Hindu. According to 2011 census, Senapati District has population of 479148. The district has a population density of 109 inhabitants per square kilometer(280/sq.m). Its population growth rate over the decade 2011 – 2011 was 25.16% and literacy rate of 75% The district is settled by different communities.

MATERIALS AND METHODS

Sample

The sample of the present study comprised of 30 adolescent girls and 30 adolescent girls with the age group of 16 to 18 years residing in Senapati district of Manipur.

Measure

In order to determine the physical fitness of adolescents, survey and experimental were the method used. A questionnaire was the tool used to determine the physical fitness of the adolescents. The questionnaire includes basic data, anthropometric measurement and dietary habits.

A sample of 60 adolescents (30 boys and 30 girls) in the age range of 16 to 18 years were selected randomly for testing the physical fitness.

STATISTICAL ANALYSIS

The questionnaires were collected after necessary details were duly filed. The collected data from the questionnaire table were then analyzed using percentage method. Body Mass Index (BMI) has been done to find out the physical fitness of the samples. The tabulated data were than interpreted accordingly.

RESULTS AND DISCUSSIONS

Table No. 1,   Classification of Respondents by Age, class and family Income

Characteristics	Category	Respondents	
		Number	Percent
Age group	16 years	6	10
	17	25	41.7
	18	29	48.3
Class studying	XI	35	58.3
	XII	13	21.7
	1st Semester	10	16.7
	2nd Semester	2	3.3
Family income per month	Below Rs. 10,000/-	25	41.7
	Rs. 10,000 to 20,000/-	30	50
	Above 20,000/-	5	8.3
Total		60	100

Table No. 1 depicts the classification of respondents by age, class and family income per month. Majority of the respondents were in the age group of 18 years which consists of 48.3% and followed by 17 years of age with 41.7% and 16 years with 10 % of the total respondents.

Majority of the respondents were studying class XI (58.3%) followed by class XII with 21.7% 1st Semester with 16.7% and very few were studying 2nd Semester with 3.3%

In case of family income, 50% of the respondents were under the category of Rs. 10,000/- to 20,000/- followed by below Rs. 10,000/- (41.77%) Rs. 20,000/- per month. The reason behind this could be that at current price, Manipur is one of the five slowest growing states in the country. (http://statistictimes.com/economy/gdp - growth- of-india-states.php)

Table No. 2.

Dietary Habits of Respondents

Dietary habits	Category	Respondents	
		Number	Percent
Food Habit	Vegetarian	60	100
	Non vegetarian		
Meals consumed per day	Two meals	16	76.7
	Three meals	14	23.3
	Four meals		
Habit of skipping meals	Yes	9	15
	No	51	85
Total		60	100

Table No. 2 shows that cent percent (100%) of the respondents were Non – vegetarian. The reason behind this could be that in Senapati district of Manipur. Majority of the people are Christians (98%) and few of them were Hindus.(2%)

Among the Hindus of Manipur meal was prohibited. However the system had been slightly change in modern days. Although meat was prohibited among the Hindus in Manipur, nowadays the younger generation used to take meat. This system of prohibition of meat consumption was not practice among the Christians in Manipur.

From the table no. 2 majority of the respondents i.e. 76.7% consumed meals twice in a day and 23.3% of the respondents consumed meals thrice a day. No respondents consumed meals four times a day.

Table No. 2 also shows that majority of the respondents does not skipped meals i.e. 85% and 15% of the respondents skipped meals

Table No.3

Body Mass Index (BMI) of the respondents

BMI classification	Presumptive diagnosis	Reponses (girls)		Responses (boys)		Total
		Number	percent	Number	percent	
18.5 or less	Under weight	3	10	5	16.7	13.3
18.5 – 24.99	Normal weight	25	83.3	24	80	81.7
25 – 29.99	Over weight	2	6.7	1	3.3	5%
30 – 34.99	Obesity (class I)					
35 – 39.99	Obesity (class II)					
40 – greater	Morbid obesity					
Total		30	100	30	100	100%

Table No.3 depicts the body mass index of the respondents. Majority of the adolescent girls were under the category of normal range i.e. 83.3% of the total respondent followed by low weight with 10% and only 6.7% of the respondents were overweight.

It is further observed from table No.3 that 80% of adolescent boys in normal category, 16.7% are under weight and 3.3% are under over weight.

From table No. 3 it reveals that 81.7% of both boys and girls adolescent were normal in BMI while 13.3% of them were under weight and only 5% of the total respondents were overweight.

Table No. 3 reveals that the adolescent girls are more in normal weight and adolescent boys have more higher percentage of underweight category. Regarding overweight very less of them the adolescent are under this category. Non of the adolescents are under the category of 30 to 34.99, 35 to 34.99 and 40 and above of BMI

The influence of peer is strongest in early adolescence, it normally peaks at ages 12 years to 13 years and declines during middle and late adolescence, as relationships with parents are renegotiated. Attachment to peers in early adolescence does not forecast trouble unless the attachment is so strong that the young person's is willing to give up obeying household rules, doing school work, and developing his or her own talents in order to win peer approval and popularity. (Fuligini et.al, 2001) Putatunda and Dhara (1994) studied the association of Waist to Hip (WHR) ratio and Body Mass Index (BMI) with blood pressure in tribal (santhal) and non tribal women of Midnapore town, West Bangal. They observed that BMI is associated with systolic and diastolic pressure among non tribal women while the tribal women

exhibit poor association between BMI and blood pressure. They suggested that in may be due to the difference activity level between two groups of women. Tribal women exert greater physical activities in their day to day life than sedentary now tribal women. They also suggested the probable effect of socio – economic and nutritional factors. Venkataramana et.al(2001) conducted a study on the association of BMI, body fat distribution and fat patterning among the Reddi and Mala population of Andhra Pradesh. The Study observed that age was significantly and positively correlated with BMI, WHR, Height, weight, SBP and DBP among Reddi males while for females, only WHR,SBP and DBP show positive correlation with age. Among the Reddi males, they observed positive correlation only with both the blood pressure but WHR Shows positive correlation only with SBP. Kapoor (2002) studied the body composition and adaptation among high altitude and plain adult females. She observed, that the high attitudes females are shorter and lighter than the plain females. The BMI value was higher among plain females as compared to high altitude females. It was observed that the high attitude females are leaner than the plain females as adjusted both by thickness of skin folds at various sites and also by BMI. A study by Bhasin and singh (1992) studied the body composition Bodhs and Baltis of Ladakh and found that BMI and BSA continuously increase from 8 – 18 years. Bodhs shows high BMI than their Balt Counterparts in all the age groups. Bhasin and Singh (1991) studied the body composition Gujjars, Dogra Brahmans, Dogra Rajput, Dogra Scheduled Castes and Tibetans. They found that BMI increase continuously in all the age group from 8 – 18 years in all the population groups. Dibamani et.al (1999) studied the body composition of Meitei boys belonging both affluent and non affluent families. The observed that the weight gain from 12 – 18 years is slightly higher among the affluent boys than non affluent boys and it was also found that the heavier body weights of the affluent boys are more reasonably due to fat mass and residual mass. They concluded that comparatively higher rate of consumption of protein and fat mass and residual mass of the affluent boys than non affluent boys. Sinha and Kapoor (2005) determined that among Punjabi adolescent boys and girls found that the increase in BMI with age was more pronounced in girls than in boys. They pointed out that it is due to the relative increase in fatness more pronounced in females than males.

From the No.3, the study shows that majority of the adolescents both boys and girls are physically fit because they are in the normal range of BMI. The reason behind this could due to its geographical   location of the District i.e. Senapati . 66.43% of the total land area is covered by forest. Therefore, the atmosphere is clean. Again as agriculture is main occupation and lots of vegetables are being cultivated here, the people eat fresh foods and vegetables which could be one of the main reason of physical fitness

Conclusion

Majority of adolescent's family income per month ranges from Rs 10,000/- to 20,000/-. All the adolescents are non – vegetarian and consumed two time meals in a day. Most of the adolescents do not skip their meals. The present study further shows that majority of the adolescents of Senapati district are in the normal range of BMI chart. The present study may profitably be utilized for future planning in the field of physical fitness by BMI in Manipur and of the country and also for planning of population healthy care measures in this present century of obesity and overweight.

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