

Effect of Socio-Economic Status on Nutritional Status on Adolescent Girls of Paschim Medinipur, West Bengal, India

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Abstract

Adolescent or teenager, is a youngster whose age falls inside the range from 13-19. Youth is the name for this move period from adolescence to adulthood. In the United States, youngsters from the ages 12-14 go to center school while adolescents from the ages of 14-18 regularly go to secondary school. In the United Kingdom (UK); young people and non-teenagers are blended in auxiliary school. Sixty nine young ladies experiencing CEDI whose guardians are every day workers, 63 young ladies are experiencing CEDI whose guardians rely on upon development. Total 37 young ladies are enduring CEDIII, among them 1009 are young ladies, 33 young ladies are experiencing CEDII. 43% of guardians occupation is development.

Keywords: Adolescents; Socio-economic status; Puberty; Nutritional status; Body mass index

Introduction

Teenager, or teen, is a young person whose age falls within the range from 13–19. They are called teenagers because their age number ends with "teen". Usage by ordinary people varies, and also varies in different societies. Most societies traditionally had a formal ceremony to mark the change from childhood to adulthood. During puberty, rapid mental and physical development occurs. Adolescence is the name for this transition period from childhood to adulthood.

In the United States, teenagers from the ages 12-14 go to middle school while teenagers from the ages of 14-18 typically go to high school. In the United Kingdom (UK); teenagers and non-teens are mixed in secondary school. Teenagers attending secondary school (high school in the US) generally graduate at the age of 17 or 18. On average, girls begin puberty at ages 10-11; boys at ages 11-12. Girls usually complete puberty by ages 15-17, while boys usually complete puberty by ages 16-17. The major landmark of puberty for females is menarche, the onset of menstruation, which occurs on average between ages 12-13; for males, it is the first ejaculation, which occurs on average at age 13. In the 21st century, the average age at which children, especially girls, reach puberty is lower compared to the 19th century, when it was 15 for girls and 16 for boys. This can be due to improved nutrition resulting in rapid body growth, increased weight and fat deposition, eating meat from animals which have been dosed up with oestrogen. Adolescence can be defined biologically, as the physical transition marked by the onset of puberty and the termination of physical growth; cognitively, as changes in the ability to think abstractly and multi-dimensionally; or socially, as a period of preparation for adult roles. Major pubertal and biological changes include changes to the sex organs. Adolescent growth spurt is a rapid increase in the individual's height and weight during puberty resulting from the simultaneous release of growth hormones, thyroid hormones, and androgens. Males experience their growth spurt about two years later, on average, than females. During their peak height velocity (the time of most rapid growth), adolescents grow at a growth rate nearly

identical to that of a toddler-about 4 inches (10.3 cm) a year for males and 3.5 inches (9 cm) for females. In addition to changes in height, adolescents also experience a significant increase in weight. The weight gained during adolescence constitutes nearly half of one's adult body weight. Teenage and early adult males may continue to gain natural muscle growth even after puberty. Some genetic sex differences, environmental factors play a large role in biological changes during adolescence. For example, girls tend to reduce their physical activity in pre-adolescence and may receive inadequate nutrition from diets that often lack important nutrients, such as iron. These environmental influences in turn affect female physical development. Anthropometry is the most frequently used method to assess the nutritional status of individuals or population groups. Measurements of nutritional anthropometry are based on growth in children and body weight changes in adults. In this study it shown socio-economic status effect of anthropometry and nutritional status of adolescent (Tables 1 and 2).

Different kinds of body mass index	Occupation of parents						Total
	1	2	3	4	5	6	
CED I	69	8	63	18	0	6	164
CED II	15	3	17	3	0	0	38
CED III	18	5	15	4	0	0	42
Normal	331	57	268	72	2	31	761
overweight	1	1	1	1	0	0	4
Total	434	74	364	98	2	37	1009

Table 1: Cross tabulation represent occupation wise nutritional status of adolescent.

Different types of Profession	Frequency	Percent	Valid Percent	Cumulative Percent
Cultivation	434	43	43	43
Business	74	7.3	7.3	50.3
Daily labour	364	36.1	36.1	86.4
Small trader	98	9.7	9.7	96.1
Service	2	0.2	0.2	96.3
other	37	3.7	3.7	100
Total	1009	100	100	

Table 2: Frequency of different occupation of parents of studied Adolescent girls.

Materials and Methods

Subjects are adolescents girls aged 10-19 years and they belong to Salboni Block which is one of the block of Paschim Medinipur, West Bengal. Participants socioeconomic data are collected through structured questionnaire, anthropometric data are collected through different instruments, cross section study is done on 1009 girls. 69 girls suffering from CEDI whose parents are daily labourers 63 girls are suffering from CEDI whose parents depend on cultivation, Total 37 girls are suffering from CEDIII, among 1009 girls 33 girls are suffering from CEDII. In Tables 3-5 it shows that skilled labour parents adolescents have higher weight, BMI from unskilled occupation parents adolescent. 43% parents occupation is cultivation.

Occupation of parents	Mean	N	Std. Deviation
1	44.53	800	4.99
2	44.55	172	5.63
3	45.2	37	3.87
Total	44.56	1009	5.07

Table 3: Comparison of mean weight (kg) of Adolescent skilled labour and unskilled labour parents.

Occupation of parent	Mean	N	Std. Deviation
1	151.03	800	4.754
2	150.88	172	5.25
3	151.57	37	4.085
Total	151.02	1009	4.81

Table 4: Comparison of mean height (cm) of Adolescent skilled occupation and unskilled occupation of parents.

Occupation of parents	Mean	N	Std. Deviation
1	19.48	800	1.75
2	19.52	172	1.88

3	19.65	37	1.14
Total	19.5	1009	1.75

Table 5: Comparison of mean BMI (Kg/sqm) of Adolescent skilled occupation and unskilled occupation parents.

Results and Discussion

Prevalence of malnutrition was 42.3% among children of illiterate mothers as compare to 20% in those of literate mothers [1], For stunting, as well as for the mean height-for-age index among children, the main determinants were economic level of the household (P=0.048 and P=0.004, respectively) accordingly [2]. The cumulative effect of socioeconomic status on families, neighbourhoods, schools, and health care guarantees that poor and low-income adolescents arrive at young adulthood in worse health, engaging in riskier and more dangerous behaviors, and with lower educational attainment and more limited career prospects than their more affluent counterparts (Tables 6 and 7).

Occupation of Parents	Mean	N	Std. Deviation
1	44.76	434	5.24
2	44.53	74	5.74
3	44.23	364	4.68
4	44.57	98	5.58
5	46.9	2	1.41
6	45.2	37	3.87
Total	44.56	1009	5.07

Table 6: Represent parents occupation wise mean weight of adolescent girls.

Occupation of parents	Mean	N	Std. Deviation
1	151.28	434	4.81
2	150.94	74	5.21
3	150.72	364	4.67
4	150.83	98	5.3
5	152.35	2	6.57
6	151.57	37	4.08
Total	151.02	1009	4.81

Table 7: Represent parents occupation wise mean Height of Adolescent girls.

The repercussions of low socioeconomic status in childhood and adolescence are often felt throughout the life cycle. Studies of intergenerational income mobility have found a substantial correlation between the incomes of fathers and the incomes of their sons at corresponding points in their careers; the correlation between family income and children's incomes after they reach adulthood is even higher [3,4]. McMurrer and colleagues [5]. In this present study it shows that socio-economic status effect nutritional status of adolescent,

higher income group family's children have higher weight, but those who depends on cultivation, their children suffering from CEDI (Table 8). 98 people are small trader, 17 girls are suffering from CEDI whose parents are small traders [6,7] where the mean height is 152.35 (6.57) of adolescent girls whose parent is service holder low-income adolescents have reduced achievement motivation and much higher risk of educational failure [8].

Implication of research and practice

This study helps to compare in nutritional status rural adolescent girls with other of area nutritional status, in this study done in time of around 2010-2011 this nutritional status of adolescents will be compared with previous year, this kind of comparison will help to study secular trends [9].

Occupation of parents	Mean	N	Std. Deviation
1	19.51	434	1.77
2	19.51	74	2.04
3	19.44	364	1.73
4	19.54	98	1.76
5	20.28	2	2.35
6	19.65	37	1.14
Total	19.5	1009	1.75

Table 8: Represent parents occupation wise mean BMI of Adolescent girls.

Conclusion

Socio-economic factor represent standard of living of any people, in this study it shows skilled person adolescent girls have higher

anthropometry, 89 girls are under nutrient among studied girls. Family income also has a profound influence on the educational opportunities available to adolescents and on their chances of educational success. This study had shown that socio-economic status affect living standard and nutritional intake, it effect adolescent growth too.

Future Research: this study shows condition of nutritional status of rural adolescents this will help to implement programme which help them implement nutritional supplement program, how government take initiative to improve health condition of adolescent girls.

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