# Effect of Parents Economic Status on Teenage School Girls Growth

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## Abstract

**Background:** 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 generally graduate at the age of 17 or 18. On average, girls begin puberty ages 10-11 years.

**Objectives:** 1) To find relationship relation between socio-economic status and Nutritional status. 2) Prevalence of under nutrition of study adolescent girls.

**Materials and method:** Subjects are Adolescents girls aged 10-19 years belongs to Salboni Block which is one the of block of Paschim Medinipur, WestBengal, Participants socioeconomic data are collected through structured questionnaire, anthropometric data are collected through different instruments, cross section study is done on 1009 girls at ages 10-11 years.to collect data on socio-economic status some structured questionnaire were used.

**Results:** About 69 girls suffering from CED I whose parents are daily labourers 63 girls are suffering from CEDI whose parents depend on cultivation, total 37 girls are suffering CEDIII, among 1009 girls 33 girls are suffering from CEDII. In table 3-5, it shows that skilled labour parents adolescent are higher weight, BMI from unskilled occupation parents adolescent. 43% parents occupation is cultivation.

**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 socio-economic status affect living standard and nutritional intake, it effect adolescent growth too.

## 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. Adolescent food habit nutritional status depends upon social status social status depends on family income house type, education of earning member, in this study it is shown 75% children live in mud houses, some of 40% family is house floor is cemented floor, they used to with open defecation, parents of study group economy based on agriculture, agriculture labour [1-5].

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) are 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 of 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 estrogen. Adolescence can be defined biologically, as the physical is 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 (Marshall, 1978). 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 showed socio-economic status effect, anthropometry and nutritional status of adolescent [6-9].

## Materials and Method

Subjects are adolescents girls aged 10-19 years belongs to Salboni Block which is one the of block of Paschim Medinipur, West Bengal, Subjects are clients of counseling center of block level hospital of Salboni. Participants socioeconomic data are collected through structured questionnaire, anthropometric data are collected through different instruments; cross section study is done on 1009 girls to take anthropometric data height in cm measured by anthropometric road, weight is measured in weighing machines, others circumferences are measured by measuring tape. Skinfolds are measured by skinfold caliper.

## Results

Table 1 shown that jobwise nutritional status based on BMI which unskilled labour's parent child are under nutrition but Table 2 had shown nutritional status on BMI shown no significant relation with parents job and children nutrition, correlation with percent body fat shown negative relation with parents occupation, in this study it shown parents occupation not relate with parents nutrition.

About 69 girls are suffering from CED I whose parents are daily laborers 63 girls are suffering from CEDI whose parents depend on cultivation, Total 37 girls are suffering CEDIII, among 1009 girls 33 girls are suffering from CEDII.

In it shows that skilled labour parents adolescent are higher weight, BMI from unskilled occupation parents adolescent. 43% parent's occupation is cultivation.

Tables, represents that 232 girls are malnutrient on basis muac who are children of unkilled labour, in other way table 2 represents that 800 girls are underweight (mean=1.76, SD=0.48) but is not significant with parents occupation, even table 4 had shown no correlation with body mass index and parents occupation (Tables 1-5).

| Nutritional status based on MUAC | Job category | | | Total |
|---|---|---|---|---|
| | 1 | 2 | 3 | |
| | 87 | 16 | 4 | 107 |
| Malnutrition | 232 | 58 | 8 | 298 |
| normal | 481 | 98 | 25 | 604 |
| Total | 800 | 172 | 37 | 1009 |

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

| Nutritional Status | N | Mean | Std. Deviation | Std. Error | Upper Bound | | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|
| 1 | 800 | 1.75 | 0.433 | 0.015 | 1.72 | 1.78 | 1 | 2 |
| 2 | 172 | 1.76 | 0.427 | 0.033 | 1.7 | 1.83 | 1 | 2 |
| 3 | 37 | 1.89 | 0.315 | 0.052 | 1.79 | 2 | 1 | 2 |
| Total | 1009 | 1.76 | 0.428 | 0.013 | 1.73 | 1.78 | 1 | 2 |

**Table 2**: Represents mean and SD of different kind of Nutritional status of study as per job category. BMI<18.49=Under nutrient, Normal, BMI ≤ 18.49-24.49, overweight=BMI>25. F=1.96 not significant.

| 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.

|  |  | BMI | Job category |
|---|---|---|---|
| **BMI** | Pearson Correlation | 1 | 0.042 |
|  | Sig. (2-tailed) |  | 0.182 |
|  | N | 1018 | 1009 |
| **Job category** | Pearson Correlation | 0.042 | 1 |
|  | Sig. (2-tailed) | 0.182 |  |
|  | N | 1009 | 1009 |

**Table 4:** Correlations tables represents relation of body mass index with occupation of parents.

|  |  | Job category | PBF |
|---|---|---|---|
| **Job category** | Pearson Correlation | 1 | -0.02 |
|  | Sig. (2-tailed) |  | 0.53 |
|  | N | 1009 | 1007 |
| **PBF** | Pearson Correlation | -0.02 | 1 |
|  | Sig. (2-tailed) | 0.53 |  |
|  | N | 1007 | 1009 |

**Table 5:** Correlations tables represent percent body fat and job category.

## Discussion

Prevalence of malnutrition was 42.3% among children of illiterate mothers as compared to 20% in those of literate mothers, 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) according (Delpuchi). The cumulative effect of socioeconomic status on families, neighbor hoods, schools, and health care guarantees that poor and low-income adolescents arrive at young adulthood in worse health, engaging in riskier and more dangerous behavior's, and with lower educational attainment and more limited career prospects than their more affluent counterparts. 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 (Solon; Zimmerman). McMurrer et al. in this present study it shows that socio-economic status effect nutritional status of adolescent, higher income group family's child have higher weight ,but

who depends on cultivation their children suffering from CEDI. 98 people are small trader, 17 girls are suffering from CED I whose parents are small traders mean height is 152.35 (6.57) of adolescent girls whose parents are service holders low-income adolescents have reduced achievement motivation and much higher risk of educational failure.

**Implication of research and practice:** This study helps to in compare in nutritional status rural adolescent girls with other area nutritional status, in this study done in time of around 2010-2011 this nutritional status of adolescent will compare with previous year, this kind of comparison will help to study secular trends.

## Conclusion

Socio-economic factor represent standard of living of any people, in this study it is shown 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 socio-economic status affect living standard and nutritional intakes, it effects adolescent growth too.

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

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