

Impact of Nutritional Education on Obesity and Their Correlates- A Longitudinal Study among Medical Students of India



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Submission: March 05, 2018; **Published:** March 28, 2018

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Introduction

Nutritional intake during adolescences is important for growth, long term health promotion, and the development of life-long eating behaviour [1-3]. Total nutrient needs are higher in adolescence than during any other time in the life cycle because of rapid growth and development. Nutritional intake during this period may have long term health implication. For example being overweight as an adolescent is associated with being overweight as an adult, fat intake during adolescence may be associated with increased risk of coronary heart disease [1], and low dietary calcium intake has been shown to lead to low bone density in adolescents, as well as the possibility of osteoporosis later in life [4] furthermore, because adolescents are becoming more autonomous, behavioural patterns acquired during this period are likely to influence long term behaviours [5].

The present longitudinal study is being carried out from January, 2012 to December, 2016 with the following objectives:

1. To find out the prevalence and changing pattern of overweight and obesity in medical students
2. To determine the correlates of overweight and obesity

Participants were medical students posted in the Department of Community Medicine during 3rd to 5th semesters under Rural Health Posting and medical intern. Total number of participants was 220 comprising of 150 male and 90 female students. They were followed again during Internship, after completion of medical graduation. A pretested questionnaire was given to them and complete personal details, dietary habits were noted down followed by examination. Body Mass Index (BMI) was used to categorize the students into underweight, normal, overweight and obese groups. A BMI of <18.5Kg/m² was taken as cut off point for under weight. Overweight and Obese were taken at the level of >25.0Kg/m² and 30Kg/m² and above respectively.

During 3rd to 5th semesters, among 150 male students, 15 (10.0%) were overweight while 9 (6.0%) were found to be obese and 6 (4.0%) were underweight. Among 90 girls, 21 (23.3%) were overweight, 10 (11.1%) obese and (7.7%) were found to be underweight. During internship prevalence of obesity was decreased to 5.2% and overweight was declined to 3.4%. High calorie intake was noticed in 45 (30.0%) male students and lack of physical activity was observed in 25 (16.7%) male students. Among female students, high calorie intake and lack of physical activity was found in 31 (34.4%) and 20 (22.2%) students respectively.

There is urgent need for prevention of obesity and its risk factors among college students. These findings have enormous significance for developing societies emerging from poverty and continuing to bear the double burden of both form of malnutrition in their populations.

Suggestions for adolescents to make healthful food preferences

- i. Make healthful food taste better and look better.
- ii. Make healthful food the only available option (take away unhealthful food).
- iii. Make the healthful food more available and convenient.
- iv. Have parents teach their children to eat healthfully when they are young.
- v. Make it cool to eat healthfully- advertising.

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DOI: [10.19080/CRDOJ.2018.06.555696](https://doi.org/10.19080/CRDOJ.2018.06.555696)

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