

Is Perceived Nutritional status Important among Adolescents?

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Adolescence is a phase of rapid transitions. Adolescents undergo many physiological and behavioural changes during this phase. Because of the increased growth rate and changes in body composition associated with puberty their nutritional needs are increased drastically.¹ Meeting these increased nutritional needs in an appropriate manner is a challenge for them and also for the society. Nutrition during this phase of life is an important determinant for occurrence of several chronic diseases, including obesity, coronary heart disease, certain types of cancer, stroke, type 2 diabetes and several other nutritional deficiency diseases; later in the adulthood and also malnutrition is associated with significant immediate and long term health risks, and also a predictor of increased risk of adult morbidity and mortality.²⁻⁴

National and population-based surveys have found that adolescents often fail to meet dietary recommendations for overall nutritional status and for specific nutrient intakes. As per National Family Health Survey, 46.8% girls and 58.1% boys in 15-19 years age group were underweight.⁵ On the other hand, the number of adolescents who are overweight or obese is increasing in both low and high-income countries¹. Reported prevalence of overweight or obesity in girls and boys is 20.7% and 18.6% respectively.⁵

As food preferences and eating habits established in adolescence tend to be maintained into adulthood, so diet among adolescents is an important public health issue. Some diet-related behaviours are particularly important during adolescence e.g. regularly eating breakfast is thought to reduce snacking and consumption of energy-rich foods. Each adolescent has own dietary preferences and eating habits. In spite of that we see that adolescents also show some general eating trends.

A WHO collaborative cross-national study on eating habits of adolescents described that skipping breakfast remains very common among young people and is associated with other unhealthy behaviours such as smoking, alcohol consumption and sedentary activities. Frequency of breakfast consumption, eating fruit and having evening meals with the family decreasing between ages 11 and 15, and soft-drink consumption increases with age. Cross-national and gender differences is generally more common among boys and varies substantially across countries and regions.⁶

Several factors may affect adolescents' food choices and nutrient intake. These factors i.e. - the food availability, acceptance by peers, increased mobility, greater time spent at school and work activities etc; contribute to the erratic and unhealthy eating behaviors, that are common during adolescence.^{1,7} Moreover during adolescence, young people are in a transition period and there is a struggle for independence i.e. they want to make their choices regarding their own eating habits.

In addition to all these preoccupation or perception of self-image is also a major determinant for nutritional choices. Body image is a multidimensional construct central to emotional well-being in which the attitudinal component is satisfaction with body size, a factor associated with self-esteem.⁸ Among adolescence, the self-evaluation of body image and social patterns of beauty are factors that have a strong influence on eating habits.⁹

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Government of India is running various health programmes for the adolescents to improve their weight status. But for the utilization of these services, it is necessary for the adolescents to have correct perception regarding their weight status. Incorrect perceptions of weight status may also preclude them from services offered through various health programs Perception among adolescents regarding their weight status remains an important issue for adolescents.

Some researchers had collected data referring to the association between body self-perception and eating patterns among adolescents. In a study done by Liu S et al¹⁰ in Chinese Americans in 2015, 32% subjects did not perceive body weight correctly, 19.7% subjects had underestimation and 12.3% subjects had overestimation of body weight. Significant differences were found among subjects in the three groups of different accuracy of body weight perception in terms of gender and age. More proportion of students overestimated and less number of students underestimated their weight in our study as compared to them which might be because of lower body image satisfaction among adolescents in our country. In a study done by Datar A et al¹¹ in US in 2015, overall, 42.1% of adolescents misperceived their weight status: 35.3% underestimated and 6.8% overestimated their weight status. Among overweight or obese adolescents, 68.4% underestimated their weight status; 35% of underweight adolescents overestimated their weight status. Among normal-weight adolescents, 8.5% overestimated and 18.5% underestimated their weight. This finding is different from our study which might be because of different culture in our country and they might be satisfied with their overweight/obese weight status. Compared to accurate perception, both overestimation and underestimation of weight status were associated with greater likelihood of inappropriate weight control interventions, but only underestimation has been found associated with unhealthy diet and activity behaviours.¹¹ This inaccuracy about own weight is very alarming because on one hand this leads to adoption of unhealthy practices among adolescents which effect their health and quality of life and on the other hand they keep themselves deprived of the health services which they should utilize for correct weight management because underweight as well as overweight have their own health problems.

In a study done in Norway by Oellingrath IM et al¹² among adolescents, it was found that perceived overweight was the main predictor of slimming attempts across genders and perceived underweight was associated with a junk/convenience eating pattern in boys. Peltzer K et al¹³, in a study among non-overweight university students from 22 low, middle and emerging economy countries, reported that 27.1% non-overweight students were trying to lose weight (34.6% women and 16.5% men). Among underweight or

normal weight students, 19.0% perceived themselves to be overweight and 11.3% were dieting to lose weight. The study found a high prevalence of weight control practices. A study done by Farhat T et al¹⁴ in US girls reported that girls who overestimated their weight reported poorer HRQOL (health related quality of life) than those with accurate weight perceptions.

We also found among 600 school going adolescents in Mehrauli, South Delhi, that 96 girls (58.18%) perceived their weight status correctly and 69 (41.82%) incorrectly. Out of 69 girls who misperceived their weight status, 46 (27.88%) overestimated and 23(13.94%) underestimated their weight. Among boys, 192 (44.14%) perceived their weight status correctly and 243 (55.86%) incorrectly. Out of 243 boys who misperceived their weight status, 174 (40%) overestimated and 69 (15.86%) underestimated their weight. Among all, 36.7% overestimated their weight and 15.3% underestimated their weight.

Perceptions have potential to lead to eating disorders and such 'normal weight' adolescents who wrongly perceive their nutritional status might develop inappropriate eating behaviours. Moreover, incorrect perception of weight status may also preclude them from services offered through various health programs. These data are needed in order to design interventions to improve an effective nutrition and weight counseling among adolescents. Health education of adolescents about estimation of correct weight status in relation to underweight and overweight/obesity is of utmost necessity along with implementation of health programs to effectively address the malnutrition. This might enhance the correct perception of weight status among them and in turn will motivate them to achieve 'normal' weight status.

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