

A Comparison of Nutritional Profile and Prevalence of Anemia among Rural Girls and Boys

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Abstract

The present study has been conducted to assess the differences in nutritional profile and prevalence of anemia among rural girls and boys. The group comprised of 50 girls and 50 boys aged 16-18 years studying in government schools. Relevant data on general information, dietary information, biochemical investigations, clinical examination, anthropometric measurements and menstruation was collected. The average hemoglobin levels were found to be 8.9 and 10.77 g /dl in female and male subjects, respectively and were positively correlated with anthropometric parameters of height, weight and BMI. Fifty per cent of female subjects were suffering from disturbances in menstrual cycle. Clinical signs and ill effects of anemia were common. Consumption of tea was high and diets were inadequate in fruits, vegetables and milk products reflecting deficiencies in energy, protein, fat, iron and B vitamins. Overall female subjects showed poorer nutritional profile and higher prevalence of anemia as compared to male subjects.

KEY WORDS: Hemoglobin, Menstrual Disturbances, Clinical Signs, Food Habits, Dietary Intake

Introduction

Anemia due to iron deficiency is perhaps the most widespread clinical nutritional deficiency disease in the world today. Nearly 50 per cent of women of reproductive age and 26 per cent of men in the age group of 15-59 years are anemic (*ACC / SCN, 1987 and Beard, 2005*). The effects of severe anemia are well established, as compromising work performance and health, others are suggested, such as links with immune competence and resistance to infection (*ACC/ SCN, 1987*). Adolescence is a crucial phase of growth since it offers the second and last chance for the catch up growth in life cycle. Adolescents who eat less than three meals daily tend to have inadequate intakes of nutrients especially iron. Adolescent girls are particularly prone to iron deficiency anemia because

of increased demand of iron for hemoglobin, myoglobin and to make up the loss of iron due to menstruation and poor dietary habits (*Beard, 2000*). Early menarche is also one of the reasons for high prevalence of anemia (*Kaur et al, 2005*). The present study is conducted to assess the dietary adequacy and prevalence of anemia among rural adolescent girls and boys of 16-18 years.

Methods

The data for the present study have been collected from 100 students, 50 girls & 50 boys in the age group of 16-18 years belonging to different villages and studying in government senior secondary school, Chanarthal Kalan, district Fatehgarh Sahib, Punjab. Questionnaire-cum –interview method was used to elicit general and dietary information of the respondents. Assessment of prevalence of