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Fitness assessment in relation to nutritional profile of urban adult girls

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■ **ABSTRACT**

The health and nutritional status of the population of nation is an important indicator of the development of the country. In lieu of the above, rational a need was felt to evaluate the fitness of the adult girls in relation to nutritional status. The study was conducted on 63 adult girls falling within the age range of 18-25 years. The nutritional status was assessed by measuring weight (kg), height (cm), BMI, and body composition. Physical fitness of the selected girls was assessed through 3 minute step up test. The mean height, weight and BMI of the subjects was 157.73±0.58 cm, 51.09 ±1.10 kg and 20.44±0.46 kg/m^2, respectively. Mean fat per cent was 23.54±0.98. It was observed that 41.2 per cent of the subjects were normal, 11.04 per cent of the subjects were either overweight or obese and remaining were falling below normal category. The correlation test was performed between BMI and fat per cent, here the correlation analysis showed that the fat mass has strong correlation with BMI (r= 0.83). The lesser the fat mass, the lower the BMI. The correlation test was also performed between BMI and recovery index (r=0.067) and recovery index and fat per cent (r= 0.026) which did not find any significant correlation that may be because the girl selected for the study were falling under the normal BMI category and very few girls were falling under obese grade I category. So, if a person has a high BMI but involved in regular cardiac exercise, sports etc., he will be more cardio-respiratory fit than those who have normal BMI but not cardio-respiratory active.

■ ***Key Words*** **:** Fitness assessment, Nutritional status, physical fitness, Body mass index

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Adequate nutrition, a fundamental corner stone of any individual's health, is especially critical for women because inadequate nutrition not only affects women's health but also the health of their children. Mortality rates, micronutrient deficiency and malnutrition status are some of the important indicators that can be used to assess the health status of the country. Nutritional status is state of body in relation to the consumption and utilization of the nutrients. Nutritional status is the balance between the intake of nutrient by an organism and the expenditure of these in the process of growth, reproduction and health maintenance. Nutritional status can be measured for individuals and for populations.

Body composition refers to the body's relative amount of fat and lean body mass (organs, bones and muscles) and is one of the five components of physical fitness. Good body composition is best gained through proper diet and exercise. Example of poor body compositions are underdeveloped musculature and excessive body fat. Body composition is the basic reflection of nutritional status throughout the human life cycle. Its ideal maintenance during the early growth and maintenance years as well as through the adult years is primary health goal.

Malnutrition denotes impairment of health arising either from deficiency or excess or imbalance of nutrients in the body. It is an ecological problem and is the end result of multiple overlapping and interactive factors- physical, biological, and cultural environment and economic.

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