

Research Paper :

Influence of nutrition on physical fitness and talent development among UG boys of University of Agricultural Sciences, Raichur, India

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ABSTRACT

The study was carried out by selecting 251 under graduate boys of 1st B.Sc. (Ag.) and B. Tech. (Ag. Engg.) of University of Agricultural Sciences, Raichur, enrolled over 3 years period from 2007 onwards. Nutritional status was assessed by computing BMI (body mass index) using height and weight parameters. Physical fitness was assessed by the performance of respondents in track and field events viz., 100 mtrs, 400 mtrs and 1500 mtrs, broad jump and shot put events. Nutritional status of student respondents using BMI as recommended by WHO revealed that about 89.89 per cent of the respondents were below (<20) normal, 17.53 per cent were in normal (20.0-23.00) and about 5.58 per cent were overweight. The students were again classified into three groups based on the range values of height and weight. The spearman's correlation coefficient was computed to see the relation between BMI and track and field events. The results revealed that, there was a positive correlation between all the events except 100mtrs and BMI. Talent identification as revealed using frequency and percentages showed that, only 0.84 per cent in 100 mtrs run, 4.38 per cent in 400 mtrs run, 10.75 per cent in 1500 mtrs run, 36.65 per cent in broad jump and 49.40 per cent in shot-put were identified as talented in terms of track and field events. The study proves that the nutrition has played a vital role in performance of track and field events and talent development.

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University of Agricultural Sciences (U.A.S.), Raichur which was earlier under the jurisdiction of UAS, Dharwad is offering the physical education (PED 101 and 102) courses for all the under graduates students in the first year. The students undergo a vigorous physical activities through sports and games. During this process, the real talent of the students in sports and games performance is evaluated in each semester. They have to score a minimum of 50% to get through these courses. The main purpose of offering these courses is to identify the talents as well to cultivate the healthy life styles among the future generation. As it is found that, in the modern society, inactivity or low level of physical activity combined with changes in eating habits are believed to be the main reasons for the increased prevalence of overweight/obesity among adolescents, because physical activity is an important component in weight control and also associated with other major health benefits, its role in youth health is fundamental. Health, nutrition and physical development go hand in hand.

Nutritional anthropometry is concerned with the measurement of variations of the physical dimension and the gross composition of the human body at different age levels and degrees of nutrition. Body composition is an

important indicator of health status in children and adolescents (Immink *et al.*, 1992; Rolland-Cachera, 1995; Malina *et al.*, 1998). Some useful, informations about the relationships between body composition and physical fitness in children from developed countries have been published (Malina, 1975; Beunen *et al.*, 1983). These studies revealed that excessive fatness has a negative impact on performance tasks in which the body is projected through space, as in long jump, sprint, and on tasks in which the body must be lifted in space as in bent arm hang. In contrast with developed countries, little is known about the relationship between body composition and physical fitness in children and adolescents of developing countries like South Africa. This relationship is relevant for public health because in developing countries low fatness can be seen as a result of under nutrition (Spurr, 1988; Malina and Roche, 1983; Parizkova, 1991), and under nutrition likely is an important risk factor for general health outcomes.

From a public health perspective, improvement of both nutritional status and physical fitness can be seen as an important tool for the improvement of the well-being of children and for the prevention of diseases. Although improvement of nutritional status is the most important,