

## Status Analysis of Awareness of Sports Nutrition Among the Athletes

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### Abstract

The purpose of this study was to know the knowledge of sports nutrition among the student-athletes of Aligarh Muslim University, Aligarh. The subjects (n = 100, m = 50, f = 50) for this study, were selected by stratified sampling method. The subjects were then divided into two groups; (1) athletes from the Department of physical education, and (2) the athletes from the other departments of Aligarh Muslim University, Aligarh. The questionnaires (pre-validated and tested) used by MM Wallinga (2012) and MF Hawk (2014) were adopted for the study. Minor modifications were done according to the Indian sports environment. The data was statically analyzed using SPSS software version 12.0 (Chicago, USA) and t-test with  $p < 0.05$  being taken as significant. The results in the form of percent responses were compared between male and female student-athletes and between the athletes of the Department of physical education, and the athletes of the other departments. The results of the study revealed that the student-athletes of the department of physical education have more knowledge of sports nutrition than the student-athletes of the other departments of the university.

**Keywords:** sports nutrition, knowledge, physical education, athletes

### Introduction

Nutrition is an essential component of any physical fitness program. The main dietary goal for active individuals is to obtain adequate nutrition to optimize health and fitness or sports performance. This is not only important to help to improve performance but also to promote healthy dietary practices in the long term. Young athletes have more nutritional needs because of physical activity and physical development. Optimal athletic performance results from a combination of factors, including training, body composition, and nutrition. Nutrition plays an essential role in attaining a high level of achievement in

sports and athletics. Physical fitness and training are very much dependent on the nutritional status of sports personnel. Diet significantly influences the performance of athletes. There is strong evidence that appropriate selection of nutrients, the timing of intake, and proper supplement choice are associated with optimal health and exercise performance.

Throughout a lifespan, inadequate nutrition is related to several chronic diseases that significantly impact morbidity, mortality, and quality of life. Adequate nutrition is essential to a healthy life and healthy aging on an individual as well as on a societal level. However, there is moderate awareness about this issue worldwide, and communities must also overcome the hurdle from awareness to action. The critical role that nutrients play in supporting healthy aging and preventing non-communicable diseases is currently receiving insufficient attention and remains poorly understood not only in the general population but also among policymakers and health professionals—insights into the nutrient. Status of individuals and populations and understanding of the impact of optimizing nutrient status during a lifespan in different life conditions is unsatisfactory. The public health implications of balancing nutrient intakes and thus reducing malnutrition and the prevalence of non-communicable diseases are enormous, consequently cutting down healthcare spending around the world. Malnutrition can be avoided by improving diets in addition to continuous nutritional education by simple and cost-effective measures such as special food supplements and nutrient supplementation of vulnerable populations or food fortification with micronutrients for the general population. Addressing the problem of malnutrition should not only be focused on dietary factors but also on the multiple risk factors that underlie malnutrition, including physical, social, and medical factors. Nutrition and diet should be considered together with other socio-economic issues as an integral part of the solution to achieve nutrient adequacy and support healthy aging. Maximizing the number of healthy life years by addressing inadequate nutrient status to tackle malnutrition in the general population and specific risk groups is an investment that will pay off but requires a comprehensive national action plan in each country. Keeping in mind all these things, the researcher decided to analyze the nutritional knowledge of athletes at Aligarh Muslim University, Aligarh, India.

### **Methodology**

A total of 100 athletes (50 males and 50 females) were selected by stratified random sampling from Aligarh Muslim University, Aligarh. The total strength of the subjects was divided into two groups: (1) athletes belonging to the Department of Physical

Education, and (2) the athletes belonging to the other departments of Aligarh Muslim University. The questionnaires (pre-validated and tested) used by MM Wallinga (2012) and MF Hawk (2014) were adopted for the study. Minor modifications were done according to the Indian sports environment. The data was statically analyzed using SPSS software version 12.0 (Chicago, USA) and t-test with  $p < 0.05$  being taken as significant. The results in the form of percent responses were compared between male and female student-athletes and between the athletes of the Department of physical education, and the athletes of the other departments of Aligarh Muslim University, Aligarh, India.

### Results and Discussion

Table no. 1, shows the demographic profile of participants

Total no.(n)		Male	Female
100		50	50
Mean age(yrs)	28±5	29±5	27±5
Sports played (%)			
• Football	30	27.3	2.0
• Volleyball	25	25.5	27.2
• Basketball	14	16.4	18.3
• Cricket	12	12.7	4.3
• Others*	19	23.6	6.2
Access to sports nutrition knowledge/counseling	75	40	35
No access	25	10	15

\*others->table tennis, badminton, hockey, kabaddi, swimming, athletics

Table no. 1 shows the demographic profile of the participants. There were 100 student-athletes (50 male and 50 female). Seventy-five were from the Department of physical and health education (40 males and 35 females). They had access to a well-defined sports nutritional education program and counseling by coaches/trainers/ registered dietitians.

Twenty-five students were from the other faculties (10 males and 15 females). They did not have the privilege of separate sports nutrition programs, and only informal sources were mostly available to them, such as teammates, family members, published

literature, etc.; most of the male athletes played football, followed by volleyball. Amongst females, most were players of other games like hockey, table tennis, badminton, athletics, as well as volleyball.

**The following chart shows the no. of students with/without the availability of sports nutrition education/ counseling.**

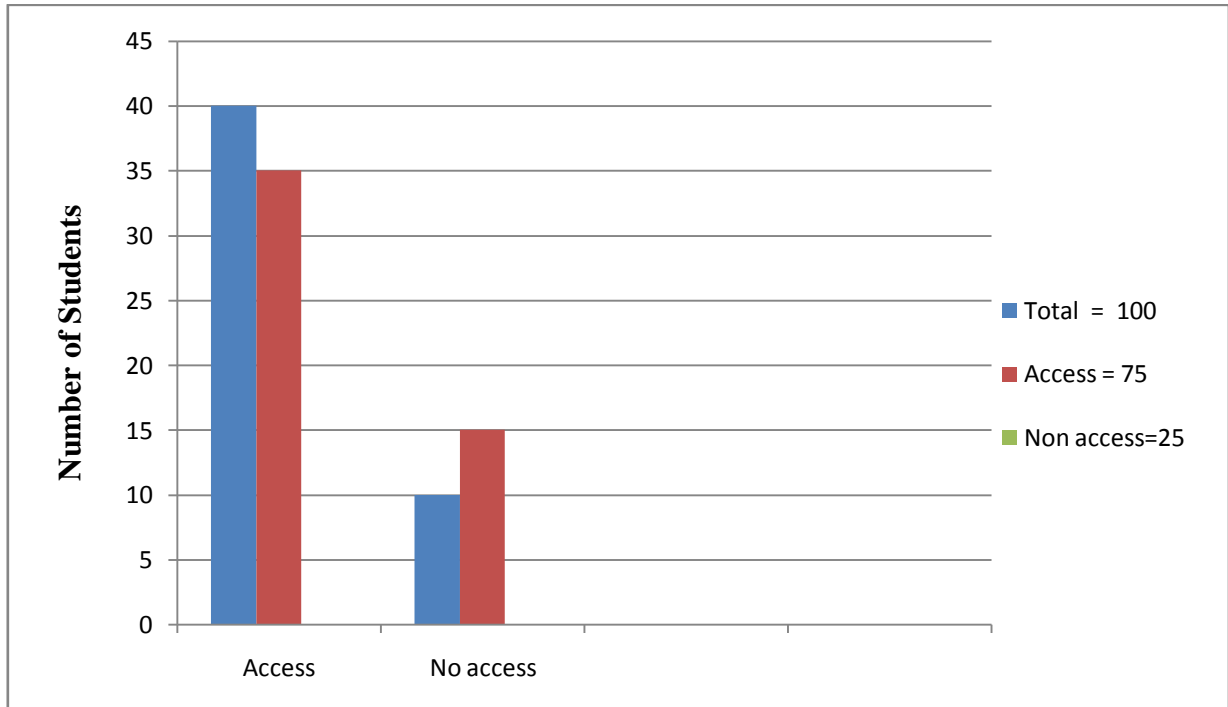


Table no. 2 shows the overall %age of athletes responding to reaction on general nutritional knowledge.

Group (total=100)	Correct responses (%)	Incorrect responses (%)
Access To sports nutritional education (n=75)	85	15
No access To formal program (n=25)	33	67

P (access); P (no access) <0.05

Table no. 3, showing the comparison of %age of athletes responding to questions related to general nutritional knowledge between male and female athletes.

Group (total=100)	Correct responses (%)	Incorrect responses (%)
Male athlete (n=50)	55	45
Female athlete (n=50)	60	40

$p(M) : p(F) > 0.05$

As seen in table no. 2 significantly higher percentage of athletes (both male and female) with formal exposure to sports nutritional education gave correct responses to questions on general nutritional knowledge (85%). In contrast, 67% of athletes without such exposure gave incorrect responses, and only 33% gave correct responses. The difference between the two groups was statistically significant ( $p < 0.05$ ). Concerning male and female athletes, a significant difference was not found between the %age responses to these questions ( $p > . 0.05$ ).

### Conclusion

This study presented a general perspective of athletes towards the knowledge of nutrition. It was concluded that the student-athletes under the Department of Physical Education possess more knowledge about sports nutrition than the student-athletes of the other Departments of Aligarh Muslim University. The reason behind this is the curriculum related to sports nutrition that is being taught to the students by the able teachers of the Department of Physical Education.

The study also concludes that the students of the other departments of Aligarh Muslim University who were involved in the study possess lesser knowledge of sports nutrition, the reason behind this could be their busy schedule

towards their studies and other assignments, due to which lesser focus is being provided at the knowledge of nutrition.

This study recommends that every athlete should consider sports nutrition as an essential subject for improving health and performance status. At the same time, the study also recommends the university to suggest sports nutrition as a core subject to the athletes in their curriculum.

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