



## Original Article

## Assessment of Knowledge, Attitudes, and Practices on Healthy Dietary Practices among Sports Students

 Huzaifa Shakeel<sup>1</sup>, Sana Noreen<sup>1\*</sup>, Bahisht Rizwan<sup>1</sup>, Shahnai Basharat<sup>1</sup>, Umaina Arif<sup>1</sup>, Irsa Mahmood<sup>1</sup>, Shanzey Shahid<sup>1</sup>, Ayesha Khan<sup>1</sup>, Tuba Shah<sup>1</sup> and Syeda Nawal Fatima Gillani<sup>1</sup>
<sup>1</sup>University Institute of Diet and Nutritional Sciences, Faculty of Allied Health Sciences, University of Lahore, Punjab, Pakistan

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## \*Corresponding Author:

 Sana Noreen  
 University Institute of Diet and Nutritional Sciences,  
 Faculty of Allied Health Sciences, University of  
 Lahore, Punjab, Pakistan  
[sananoreen.rizwan@gmail.com](mailto:sananoreen.rizwan@gmail.com)

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## ABSTRACT

Adequate food is the most important requisite for growth; while it is important throughout the children, it is more crucial during the early years of life when rapid growth occurs. Thus, dietary intake, nutritional status, emotional maturity, and physical fitness are major determinants of physical performance. **Objective:** To assess the Knowledge, Attitude, and Practices of healthy dietary practices among sports students. **Methods:** A cross-sectional study was conducted among 100 sports students from the University of Lahore sports complex teams using a non-probability convenient sampling technique. Structured questionnaire surveys were personally given to them to collect the data related to their knowledge, attitude, and practices. Data were analyzed with the help of SPSS version 24.0. **Results:** According to our results, 75.2% of the participants had good knowledge about healthy dietary choices, 64.4% of them had a good attitude towards opting for the right meal, while the practices of the participants were relatively low as about 57.4% of them were practicing their knowledge. **Conclusions:** It was determined that the majority of the sports students had adequate healthy dietary knowledge and healthy eating attitude, but there were inadequate healthy dietary practices among sports students. Most of them had normal healthy BMI, including both gender, but there were inadequate nutritional practices among sports students. Most students were eating out, taking unhealthy snacks, carbonated beverages and caffeine. Moreover, the consumption of water among the students was also affected.

## INTRODUCTION

Nutrition is a deliberate action made by a person to protect and improve their health and quality of life by consuming proper amounts of nutrients at the right times [1]. Physical changes alter and change the body's food requirements throughout this time [2]. In addition to an increased demand for calories, protein, vitamins, and minerals, there is also an increase in appetite [3]. It was noticed that trainers, pupils and instructors do not focus enough on their diets, while training physically as well as are uneducated about the performance being influenced by their diet [4]. Healthy lives are becoming increasingly vital in today's culture. Nutrition education courses are essential for the development of good eating habits. Meta-

analyses and systematic reviews illustrate that school programs for children regarding nutrition education, particularly theory-based therapies and multi-component, significantly have an effect on students' nutritional habits [5]. It is well understood that a well-balanced diet is responsible for giving various nutrients that are required for our bodies to function properly, maintaining our health, and keeping us safe from illness [6]. The vast nutraceuticals and dietary supplements market to improve a customer's health or wellbeing. These products, however, are not necessarily safe for everyone. Nutrition is important for achieving peak sports performance. A well-balanced diet should provide enough calories and macro-

and micronutrients. In addition to the energy demands of exercise, proper eating habits will be carried over to maturity in adolescent athletes, and the risk of an incorrect lifestyle can be decreased in the presence of physical activity [7, 8]. Nutrition in sports is regarded as a method of nutrition information to a regular food plan in order to provide energy for strength training, speed up the body's healing process, and maintain overall health status while competing in sports [9]. Because most sports have a high degree of competition, athletes are vulnerable to the latest diet or supplement trends and may be inclined to change their diet to boost their performance. Unhealthy eating habits severely impact not just their competition performance but also their overall health [10]. Consumption of healthful meals is linked to nutrition knowledge. Those who are active, such as those concerned with physical wellbeing and competitive beginner or experienced athletes, are referred to as athletes [11]. Non-athletes are those who do not participate in sports and are more prone to have an unhealthy life, especially during the week. How well athletes perform in sporting events is influenced by their nutrition expertise, eating choices, and food intake [12]. This study aims to assess the nutritional Knowledge, attitude, and practices among sports students. Healthy dietary practices, knowledge, and attitudes play an important role in the performance and physical fitness. There is a need to create awareness, increase knowledge, and improve dietary practices among sports students.

## METHODS

A cross-sectional study was conducted among 100 sports students from the University of Lahore sports complex teams by the non-randomized convenient sampling technique. Structured questionnaire surveys were personally given to them to collect the data related to their knowledge, attitude and practices. Our main focus was on teenagers and adults of both genders aged from 15 to 30 years who participated in sports. Data were analyzed with the help of SPSS version 24.0.

## RESULTS

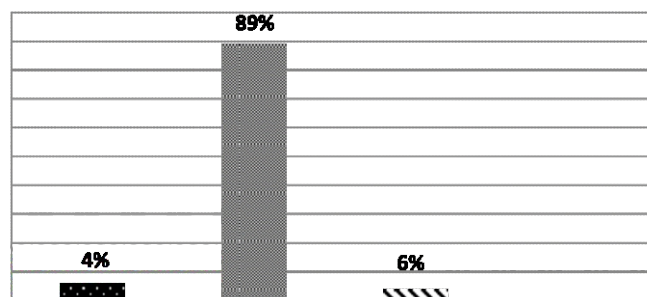
Table 1 shows that there were 19 participants aged between 15-20 years, and 71 participants were from the age group of 21-25 years. At the same time, 10 participants aged between 26-30 years.

Age Group (years)	Frequency
15-20	19
21-25	71
26-30	10

**Table 1:** Frequency distribution of age of the participants

According to figure 1, the majority of the participants (89%) had Normal BMI; 6% and 4% of the participants were

underweight and overweight, respectively, while none were obese.



**Figure 1:** Frequency distribution of BMI of the participants

According to Table 2, 60% of students knew their dietary needs, while 40% were unaware of their body requirements. The majority of participants, 79%, had heard about Food Groups, while 21% had no idea what food groups are. The result of the table above showed that 87 participants knew their water requirements. However, 89% of participants were aware of the negative impacts of an unhealthy diet on their performance. Moreover, 76% of students were aware of the healthy alternatives to junk food, whereas 24 did not know what healthy foods can replace junk food. About 87% of participants knew their water requirements, while 13% of participants did not know their water needs.

	Questions	Yes (%)	No (%)
1.	Knowledge about dietary needs	60	40
2.	Knowledge about Food Groups	79	21
3.	Knowledge of Water Requirements	87	13
4.	Impacts of an unhealthy diet on performance	89	11
5.	Knowledge of alternatives to junk food	76	24

**Table 2:** Frequency distribution of Nutrition Knowledge among sports students

According to Table 3, about 73% of participants often indulged in cheat meals, while 27% of participants didn't. 45% of members like desserts as a pre-workout snack, whilst 55% of members like other options as pre-workout snacks. Moreover, about 72%, take other food items as a post-workout snack. 54% of members choose healthy food from university cafeterias. The number of members that consult the internet for dietary guidelines is 67%, whilst only 33% members do not take help from the internet for dietary guidelines.

	Questions	Yes (%)	No (%)
1.	Participants attitude toward indulgence in a cheat meal	73	27
2.	Participant's attitudes toward healthy eating choices	86	14
3.	Supplement intake for a better performance	73	27
4.	Preference for desserts as a pre-workout snack	45	55
5.	Taking fruits as a post-workout snack	72	28
6.	Opting for healthy snacks from the university cafeteria	54	46
7.	Consulting the internet for dietary guide	67	33
8.	Intake of sugary drinks	50	50

**Table 3:** Frequency distribution of Attitude among sports

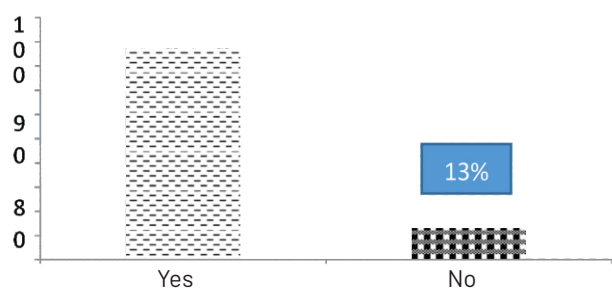
students

The Table 4 shows that 63% of members do not train with their stomach full. 45% of members drink lots of water during training. However, 66% of members often eat out, 36% take protein supplementation, whilst 64% do not take protein supplements for better performance. 59% of members burn calories gained from unhealthy eating, while 41% of members do not feel the need to burn excessive calories. About 68% of participants eat at odd times.

	Questions	Yes (%)	No (%)
1.	Practice training with a full stomach	37	63
2.	Drinking a lot of water during training	45	55
3.	Practice of eating out often	66	34
4.	Practice of protein supplementation	36	64
5.	Burning calories gained from unhealthy eating	59	41
6.	Eating at odd times	68	32

**Table 4:** Frequency distribution of practices among sports students

The Figure 2, displays that 87% say that their diet has an impact on their performance



**Figure 2:** Impact of diet on performance

## DISCUSSION

Healthy eating plays a major role in the maintenance of a healthy body. A balanced diet provides the energy needed by the human body [13]. To regulate all the necessary functions in a body, one must eat a balanced diet consisting of a sufficient amount of carbohydrates, proteins, fats, vitamins, and minerals. On top of that, one must stay physically active to make the body function faster and more efficiently. Carbohydrates provide the energy required by the body, proteins help in muscle building, and fats provide insulation to the skin and protection for the organs. The results obtained from this study were very positive as the majority of the participants had nutrition awareness. According to the current study, 60.2% of students have knowledge of their daily dietary needs, whereas similar results were found in another research [14] which showed that 57.3% of the participants had nutrition knowledge. Having nutrition knowledge is very important for athletes since it allows them to eat what they need and what is better for their performance [15]. Participants had good nutrition knowledge. Meanwhile, poor nutrition knowledge

was seen in other research [16] in which it was seen that only 50% of participants were nutritionally educated. According to the present study, 76% of participants knew the healthy alternatives to junk food; moreover, in another study [17], 70-79% of participants had nutrition education. These results are very similar to the present study's results. Being aware of the healthy alternatives to unhealthy food allows a person to choose better options that help boost his performance. In the current study, it was seen that 78.9% of participants enjoyed healthy snacks; however, in another study of similar nature, it was seen that 80.3% of the participants had a healthy eating attitude, showing the likeness toward healthy snacks [18]. If a person enjoys healthy food, it becomes very easy to follow a healthy diet. This study showed that 72.9% of the participants have a cheat meal often, while an Indian study [19] showed that 70% of the participants had a good nutrition attitude, explaining the possible high intake of junk food. In the current study, 54.2% of the participants chose healthy snacks from their university cafeterias, while, in a Malaysian study, it was observed that 59.55% of the participants had a balanced diet, which clearly shows the choice of a healthy and balanced diet from university cafeterias. Choosing the right kind of snacks from university cafeterias can be very useful in order to keep calorie intake on track. In the practice section, most of our respondents (67%) had practiced maintaining a healthy food lifestyle, consistent with another study that had the same practice claims. However, another study shows that only 4.5% have good practice [17]. Therefore, having good knowledge does not always ensure excellent practice. Being consistent with a healthy lifestyle is the key to a better performance in sports as well as in other daily activities. Better results can only be obtained if one is consistent and determined with a healthy lifestyle. In this study, it was found that 42% of participants took dietary guidelines from their trainers; likewise, in another study, 37% of the respondents took nutritional information from their coaches [20]. This research shows that not all athletes take dietary guidelines from authentic sources; some may be misguided towards making bad food choices. In the present study, 67.7% of the students used the internet to find nutritional information. This suggests that students gather nutritional information from any source they can in order to improve their eating habits and sports performances, irrespective of the fact that their source of information could be misleading in many ways.

## CONCLUSIONS

It was concluded that most sports students had adequate nutritional knowledge and a healthy eating attitude, but there were inadequate nutritional practices among sports students. Most of them had normal healthy BMI, including

both genders. But there were inadequate nutritional practices among sports students. The majority of the students were eating out, taking unhealthy snacks, carbonated beverages, and caffeine. Moreover, the consumption of water among the students was also affected.

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