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# Assessment of Nutritional Status and Nutrition Education for Athletes in Sadakathullah Appa College

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## Abstract

*Sports Nutrition is important that adolescent athletes understand that their energy needs will be different based on age, growth rate, and level of activity, and it is vital to educate athletes on these increased energy needs to avoid deficiencies sporting events and to avoid illness and injury. Despite the increased need for nutrition education for adolescent athletes, there is still date there is a limited amount of research in this area. So, the survey was conducted and their consent was 30 athletes in different age group of 18 to 25 years were selected from both genders in Sadakathullah Appa college, Rahmath Nager, Tirunelveli district. Anthropometric, Biochemical, Clinical Examination and Dietary Habits of athletes were analyzed. Nutrition Education is conducted to the participants to raise an awareness to combat the nutritional deficiency disorders as well to increase their performance during the event or post the event.*

**Keywords:** Nutrition, Fitness, Athletes, Diet.

## Introduction

For an athlete, nutrition is crucial because it gives the energy needed to complete the exercise. Their diet has an effect on their recuperation, strength, training, and performance. For sports nutrition, timing is just as crucial as type when it comes to what athletes eat throughout the day. It also affects how well they perform and how quickly their bodies heal from an exercise. The study and application of nutrition and food with an eye toward enhancing athletic performance is known as sports nutrition. In both strength and endurance sports (bodybuilding and weightlifting, for example) and cycling, running, swimming, and rowing, nutrition plays a significant role in training regimen.

As a subset of applied nutrition, nutrition education directs resources toward the acquisition, acceptance, and adaptation of healthy eating practices in accordance with one's own food culture and scientific

nutrition knowledge, all with the ultimate goal of increasing the health of the individual or community. The methodical process of gathering and analyzing data to determine the kind and causes of health problems associated with diet that impact a specific person is known as nutritional assessment. The ABCD methods can be used to accomplish. The role of nutrition in sports performance is very important. Proper nutrition must be Available prior, during and post competition. Jeukendrup stated that from fuelling to recovery, Muscle building weight and making optimal nutrition ensure the best platform for success in any sport. Meals eaten after and before the exercise are the most important in nutrition but we should really be very careful with all that the athlete intake in his body. As a general rule of thumb an athlete should eat about two hours before any exercise and the meal should be high in carbohydrates, low in fat and low to moderate in protein. Carbohydrates are the main source of energy that provides power to an athlete in exercise regime. Protein is required to develop muscle growth.

### **Objectives**

- To evaluate the athletes’ prevalence.
- To evaluate the athletes’ anthropometric measures.
- To examine the athlete’s clinical signs and symptoms.
- To determine the athletes’ nutritional habits.
- To Providing nutritional education to athletes

### **Methodology**

#### **Selection of Area**

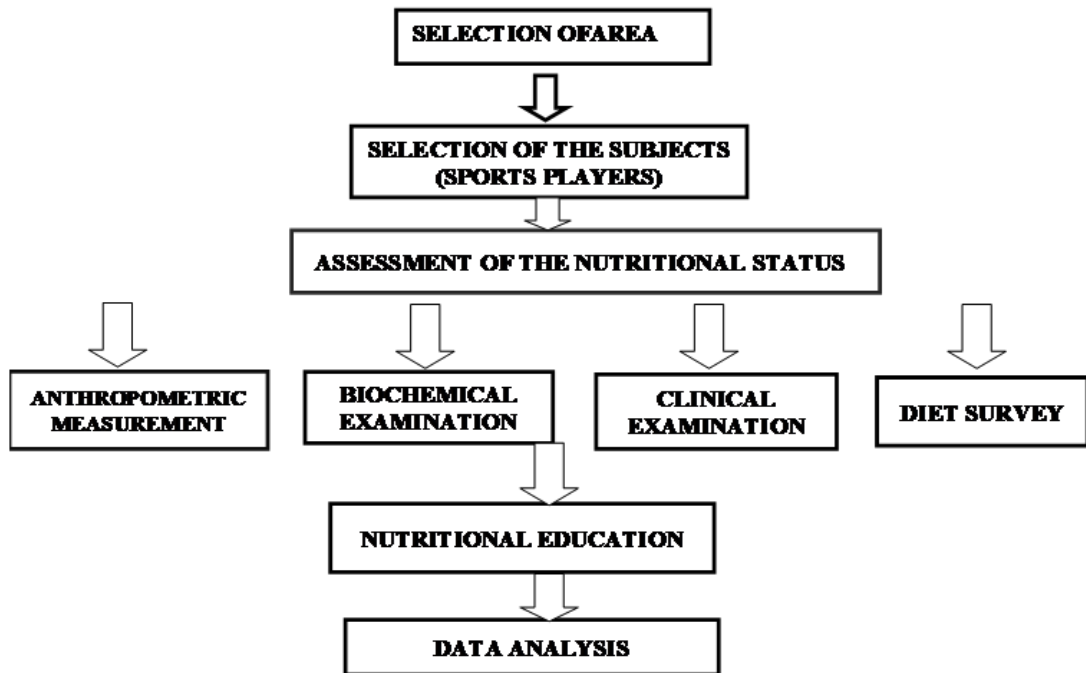
Sadakathullah Appa College is a minority general degree college located in Palayamkottai, Tirunelveli district, Tamil Nadu. It was established in the year 1971. The college is affiliated With Manonmaniam Sundaranar University. This college offers different courses in arts, Commerce and science. The study was carried out in Sadakathullah appa college, located in tirunelveli district. This Area was selected because of easily accessibility of the subjects. The subjects were oriented Regarding the conduct of the study and their consent was obtained 30 Athletes in different sports Players in the age group of 18 to 25 years were selected from both genders from the selected Of Sadakathullah appa college, Tirunelveli district. The Sports players and Staffs were very Co-operative and evinced keen interest in the study

#### **Assessing the Nutritional Status and Health Status among Athletes**

Assessment of nutritional status community is one of the steps in the formulation of any public strategy to combat malnutrition. (Bamji et al.,2009). According to Catherine and Hillary (2005), measures of nutritional status are usually in as Much as they predictive of health outcomes. The practical requirements for assessment of Nutritional adequacy arise from the need to intervene, either by advice or by more aggressive Strategies to improve the nutrition of individuals or populations and thereby to reduce the risks and borders of those disease that or may have a nutritional component. Nutritional assessment of the selected Athletes was done through.

1. Anthropometric Measurements
2. Biochemical Assessment
3. Clinical Examination
4. Diet survey

## Design of Study



## Results and Discussions

Analysis is the ordering of the data in such manner that they yield awareness the question After the data has been collected, it is essential to organize the information in a systemic Manner in order to obtain the desired results and make interpretation scientifically. The data was collected by the interview method was analyzed statistically and the results were tabulated

- 9.1 % of Athletes, 31.8 % of Volleyball players, 13.6% of Cricket players, 13.6 % of Football players, 9.1 % of Basketball players, 13.6 % of Badminton players.
- Among the selected Athletes 60% of males and 40% of females.
- Many people well aware of nutrients & healthy choice of foods. 80 % of people well aware of basic nutrients & basic food groups.
- Many people well aware of nutrients & healthy choice of foods.
- 80 % of people well aware of basic nutrients & basic food groups. Among the selected athletes, (60%) of players didn't take any kind of supplements

### Anthropometric Measurements of the Selected Athletes

Mean Body Weight, Height, and BMI of the Selected Athletes

**Table 3.1**

S. No.	Anthropometric Measurement	Mean Value
I	Weight	65.6 kg
II	Height	175.6
III	BMI	23.5

The athletes’ median height is 175.6. The athletes’ median body mass index is normal. They weren’t malnourished and obese. The majority of athletes reported the clinical signs and symptoms.

### Biochemical Estimation of the Selected Athletes

The mean Hemoglobin count of selected athletes had 15g/dl. The mean level of glucose level in blood 80 mg/dl. The mean value of the details is comparatively normal level.

### Clinical Sign and Symptoms Prevalent among the Selected Athletes

**Table 3.2**

S.No	Symptoms	Deficiency	Number	Percentage
1	Hair loss	Iron	2	6%
2	Pale Eye	Iron	2	6%
3	Chapped lips	B complex vitamin	3	10%
4	Enlargement Neck	Iodine	3	10%
5	Athletes foot	Vitamin D	1	3%
6	Irregular periods	Iron	2	6%
7	Muscle Cramps	Magnesium Vitamin D	2	6%
8	Stress Fractures	Vitamin D	2	6%

From the above Table 3.2 Majority of athletes had the clinical sign and symptoms. Most of 30% of athletes are suffering from Iron and Vitamin D deficiency. Few Athletes are suffering from iodien deficiency 10 percentage.

### Calculation of Nutrient Intake of Athletes

**Table 3.3**

Nutrients	Actual Intake	%RDA	Resultant RDA	Excess Deficit
Energy	1780 kcal	71.2	2500 kcal	-720
Prorein	48 g	80	60 g	-12
Fat	24 g	80	30 g	-6
Calcium	750 mg	83.3	900 mg	-150
Iron	16 mg	72.72	22 mg	-6-

From the above table (3.3), shows that the nutrient intake of the athletes could studied. The Energy intake, in the sports person was deficit by 1780 Kcal (71.2%). The intake of protein was deficit by 48 g (80%). The intake of Fat was deficit by 24 g (80%). The intake of Calcium was deficit by 750 mg (83.35). The intake of was deficit by 16 mg (72.2%).

### Conclusion

The purpose of the study was to evaluate our college athletes who were chosen based on their nutritional health. The bulk of research participants are non-vegetarians from nuclear families that use baked goods as their junk food. When energy intake and expenditure are compared, it is evident that the former is higher than the latter, suggesting that the subjects’ nutritional intake is relatively low. The study subjects’ nutritional state was below average. Their food intake may be a reflection of their inadequate nutritional awareness. Based on these findings, participants receive nutrition instruction to raise awareness of nutritional deficiency problems and improve performance during

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the event or post the event. Nutrition Education is an essential mass to ensure better health practices and for habits Through an increase knowledge and favorable attitudes. Through nutrition Education people become aware of nutritional equal locally available at Low cost food source. Nutrition Education promotes the best use of an individuals limited economic sources. Nutrition helps to prevent some diseases and deficiencies.

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