



Assessment of Healthy Dietary Practices Among Sports Person

Akanksha Badola	MSc. Student , department of nutrition and dietetics , Manav Rachna International University, Faridabad.
Gurjeet Kaur Chawla	Associate professor, department of nutrition and dietetics , Manav Rachna International University, Faridabad.
Binu Bhatia	Assistant professor , department of nutrition and dietetics , Manav Rachna International University, Faridabad.

ABSTRACT

Nutrition is an important part of sport performance for young athletes, in addition to allowing for optimal growth and development. The main objective of this study was to assess the knowledge regarding healthy dietary practices among sports person. Before intervention mean score of nutrients in male were; Energy intake was found to be 1939.08±328.87; Carbohydrate intake was found to be 221.40±42.87; Protein intake was 58.77±9.29; Fat intake was 69.88±34.24 and Calcium intake in male was found to be 99.51±310.70; Iron intake was 10.55±2.06. After intervention, mean Energy in males was 2113±342.19; Carbohydrate intake was 243.90±47.62; Protein intake was found to be 62.19±9.39; Fat intake was 69.81±13.57 and the Calcium intake was 931.64±273.10 and Iron intake was 11.10±1.73. Chi-square test has revealed that there was significant difference in the Energy intake and iron intake before and after intervention (P<0.05). Similarly, before intervention, mean energy intake in female was found to be 1980.91±299.47, Carbohydrate intake was 243.90±47.62; Protein intake was found to be 59.37±9.89; Fat intake was 67.29±15.60 and Calcium intake was found to be 900.51±310.70. After intervention, energy intake in female was 2085.73±259.7; Carbohydrate intake was 243.90±47.62; Protein intake was 61.70±9.75; Fat intake was 69.89±16.10; Iron intake was 11.34±2.23. T-test revealed that there was no statistical difference in the results.

KEYWORDS	nutrition , sports performance , intervention , dietary pattern.
-----------------	--

INTRODUCTION

Nutrition is an important part of sport performance for young athletes, in addition to allowing for optimal growth and development. Macronutrients, micronutrients and fluids in the proper amounts are essential to provide energy for growth and activity. To optimize performance, young athletes need to learn what, when and how to eat and drink before, during and after activity.

Proper nutrition is vital for child and adolescent athletes to attain proper growth and perform optimally in sports. Young athletes need to learn what foods are good for energy, when to eat certain foods, how to eat during an event, and when and what to eat to replenish after activity. A well-balanced diet containing appropriate amounts of macronutrients (protein, carbohydrates and fat) and micronutrients (vitamins and minerals) is essential to provide enough energy for growth and activity. Sports nutrition enhances athletic performance by decreasing fatigue and the risk of disease and injury; it also enables athletes to optimize training and recover faster (1). Balancing energy intake with energy expenditure is crucial to prevent an energy deficit or excess. Energy deficits can cause short stature, delayed puberty, menstrual dysfunction, loss of muscle mass and increased susceptibility for fatigue, injury or

illness (2, 3). Energy excess can result in overweight and obesity (4). Energy requirements for adolescents are more variable, depending on age, activity level, growth rate and stage of physical maturity (1).

MATERIALS AND METHOD

The study was divided into 5 phases. Phase I includes the locale of the study was selected. The II phase includes sample selection of the study was done 50 girls and 50 boys were selected from the sports academies from DELHI region. In III phase the samples were selected randomly. In IV phase, the diet of the sports person was assessed by 24 hr recall. Pre and post intervention was done on the dietary pattern of the subjects. In pre intervention the dietary intake of the subjects were seen and then nutrition knowledge was imparted according to the sports person. Then again 24 hour recall was assessed. In V phase the results were statistically analysed by T-test.

RESULTS AND DISCUSSION

The present study was conducted to assess the dietary pattern among sports person. Assessment of different nutrients were done i.e. energy, protein , carbohydrate , fat , calcium and iron.

Table-1. Distribution of subjects on the basis of mean nutrients intake by sports person.

NUTRIENTS	MALES			FEMALES		
	Pre intervention (n=100)	Post intervention (n=100)	T-test	Pre intervention (n=100)	Post intervention (n=100)	T-test
	Mean score	Mean score	p-value	Mean score	Mean score	p-value
ENERGY	1939.08±328.87	2113.71±343.19	0.011 *	1980.91±299.47	2085.73±259.71	0.065
CARBOHYDRATE	221.40±42.87	239.15±46.29	0.049*	234.64±46.73	243.90±47.62	0.328

PROTEIN	58.77±9.29	62.19±9.39	0.070	59.37±9.89	61.79±9.75	0.220
FAT	69.88±34.24	69.81±13.57	0.969	67.29±15.60	69.89±16.10	0.414
CALCIUM	900.51±310.70	931.64±273.10	0.596	913.01±323.96	918.44±223.22	0.923
IRON	10.55±2.06	11.10±1.73	0.158	11.12±2.65	11.34±2.23	0.653

***significance p<0.05**

Before intervention mean score of nutrients in male were : Energy intake was found to be 1939.08±328.87; Carbohydrate intake was found to be 221.40±42.87; Protein intake was 58.77±9.29; Fat intake was 69.88±34.24 and Calcium intake in male was found to be 99.51±310.70; Iron intake was 10.55±2.06.

After intervention, mean Energy in males was 2113±342.19; Carbohydrate intake was 243.90±47.62; Protein intake was found to be 62.19±9.39; Fat intake was 69.81±13.57 and the Calcium intake was 931.64±273.10 and Iron intake was 11.10±1.73. Chi-square test has revealed that there was significant difference in the Energy intake and iron intake before and after intervention (P<0.05)

Similarly, before intervention, mean energy intake in female was found to be 1980.91±299.47, Carbohydrate intake was 243.90±47.62; Protein intake was found to be 59.37±9.89; Fat intake was 67.29±15.60 and Calcium intake was found to be 900.51±310.70. After intervention, energy intake in female was 2085.73±259.7; Carbohydrate intake was 243.90±47.62; Protein intake was 61.70±9.75; Fat intake was 69.89±16.10; Iron intake was 11.34±2.23. Chi -square test revealed that there was no statistical difference in the results.

CONCLUSION

This study demonstrates that there was an increase in the dietary pattern of the sports person after post intervention there was increase in the mean score of the energy intake (2113.71±343.19) and the carbohydrate (239.15±46.73) in the male and the results were statistically significant (p<0.05). There was increase in the protein, fat, calcium and iron intake in the male after post intervention as compare to pre intervention but the results were not statistically significant. As in female there was a increase in the energy, carbohydrate, protein, fat, calcium and iron take after post intervention as compare to pre intervention but the results were not statistically significant.

Further studies can be done on other types of nutrients for more appropriate results.

ACKNOWLEDGEMENT

I wish to express my sincere gratitude to my research supervisor Gurjeet Kaur Chawla and co-supervisor Binu Bhatia who was abundantly helpful and offer invaluable guidance and support. I cannot express how much helpful she was to me in developing an idea and making it a reality.

REFERENCES

1. Hoch AZ, Goossen K, Kretschmer T. Nutritional requirements of the child and teenage athlete. *Phys Med Rehabil Clin N Am* 2008; 19(2):373-98.
2. Dieticians of Canada the American Dietetic Association, and the American College of Sports Medicine. Joint position statement: Nutrition and athletic performance. *Can J Diet Pract Res* 2000; 61(14):176-92.
3. Meyer F, Connor H, Shirreffs SM. International Association of Athletics Federations. Nutrition for the young athlete. *J Sports Sci* 2007; 25 (1): S73-S82.
4. American Academy of Paediatrics, Committee on Nutrition and the Council on Sports Medicine and Fitness. Sports drinks and energy drinks for children and adolescents: Are they appropriate? *Paediatrics* 2011;127(6):1182-9