

## RESEARCH ARTICLE



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## ASSESSMENT OF DIETARY PRACTICES AMONG UNIVERSITY MALE SPORTSMEN

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### ABSTRACT

Dietary practice is a typical aspect for maximal performance of athletes. Insufficient information about dietary practices among Indian athletes during the competition was observed by many researchers in India. The aim of present investigation was to find out the dietary practice of university level male sportsmen at different sportive events. This study was conducted on 120 male sportsmen studying in Government and Private colleges situated in Jalpaiguri (W.B.), India. The sportsmen belonged to varied sports disciplines viz. Football (N=30), Athletics (N=30), Cricket (N=30) and Shooting (N=30). The means and standard deviations age, weight and height of male sportsmen were  $(22.19 \pm 2.49)$  years,  $(56.11 \pm 6.43)$  kg and  $(1.65 \pm 0.09)$  cm respectively. The dietary practice questionnaire prepared by Nazni and Vimala (1) was adopted by researcher to collect the reliable data from the one hundred twenty male sportsmen. To assess the nutrition related fact of college sportsmen of Jalpaiguri district, Frequency and Percentage were analyzed. Results of present study indicated that the athletes (43.33%) adopted a change in the dietary pattern at the time of competition. Skipping of meals prior to competition (31.67 %), awareness about carbohydrate loading (23.33%) and consumption of glucose polymer drink (43.33%) during exercise attitudes towards nutritional practice were observed among athletes. Further, sport drink every day before practicing have taken by athletes (34.17%), Habit of taking energy bars during exercise (60 %), consumption of rising (63.33%), consuming isotonic sports drinks (41.70%) were observed, whereas consumption of energy gel during exercise was not observed in athletes (60.83). The results of the present investigation indicated the lack of nutrition knowledge interfere the dietary practice for university level male athletes of different games and sports. This sports specific differentiation in the dietary intake indicates the strong impact of sport coaches and trainers, teammates, family members and Indian culture.

**Keywords:** Dietary practices, Males, University sportsmen

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### INTRODUCTION

Research over past decades has clearly demonstrated the beneficial effects of optimum nutrition on exercise performance of an athlete. What an athlete eats and drinks can affect health, body weight and composition, substrate availability during exercise, recovery time after exercise and ultimately, exercise performance. Thus it becomes imperative to investigate the interrelations between various determinants such

as dietary, socio-economic, anthropometric, iron sufficiency and mental well-being of an athlete, which can provide an insight on fitness levels of the athlete and can be made useful to optimize fitness levels

Nutritional requirements are not same at various periods of growth. Requirements vary widely with age, sex, body size, growth pattern, climate and state of health of person. But the variation is mainly due to difference in physical activity. Persons like players engaged in strenuous activity requires more food to meet their increased requirement of energy and for the initiation and maintenance of high level of performance where as persons engaged in sedentary work like non sportsmen and women, require less food as they spend less energy. The present study was to assess the dietary practice of university male sportsmen at different sportive events.

Nutrition is an important determinant for the physical fitness of a sportsmen. Dietary practice on the individual basis is to obtain adequate nutrition to promote good health and physical fitness or sports performance. Investigators of Iran also indicated that nutritional knowledge of Iranian non-collegiate athletes were lower than collegiate athletes. They suggested that nutrition knowledge and attitudes of Iranian non-collegiate athletes need to improve (2)..This is not only important to help to improve performance but also to promote healthy dietary practices in the long term (3).

A researcher found the inadequate relationship between nutritional knowledge and dietary intake. and he recommended to develop the valid instruments for the assessment of sport-specific knowledge to compare the dietary intake among athletes(4).

Sport nutrition knowledge among athletes is inadequate. This substandard level of knowledge may contribute to poor dietary behaviors. These athletes may get benefit from nutrition-related training and education (5). The dietary intake and nutrition knowledge among adolescent females also showed misconceptions and nutrient deficiencies( 6).

The nutritional misconceptions and a lack of nutritional knowledge of fluid intake, hydration, pre-competition meals, as well as diet contents like energy, minerals and vitamin were found among athletes (7). College athletes have also misconception about nutrition, and have poor nutrition knowledge and attitude (8, 9).

Most of the nutritional knowledge and food habits given to Greek basketball players from their coaches was inaccurate.(10). Therefore, it is important for that working with athletes to find ways to educate athletes on accurate and helpful dietary advice (11).

Most of the athletes did not receive the sound nutritional practices to stabilize their sports performance due to poor nutrition knowledge, dietary extremism, poor practical skills in choosing or preparing meals, and reduced access to food due to a busy lifestyle and frequent travel. Education in nutrition for the athlete needs to be practical that will help to achieve the goals of sound nutrition.. Athletes with extreme nutrient requirements, or with nutritional problems, should seek individual assessment and counseling from a sports nutrition expert (12).

To find out the relationship between nutrition knowledge and dietary intake, validated methodologies are needed. The dietary guidelines may be helpful for assessing the relationship between nutrition knowledge and dietary intake (13).

Dietary practice is a typical aspect for maximal performance of athletes. Insufficient information about dietary practices among Indian athletes during the competition was observed by many researchers in India. So, the study was aimed to assess the dietary among university level sportsmen of different games and sports

## **MATERIALS AND METHODS**

### **Selection of Subjects:**

The study was conducted on 120 male sportsmen studying in Government and private colleges situated in Jalpaiguri (W.B.) , India with mean and SD of age  $22.19 \pm 2.49$  years, weight ( $56.11 \pm 6.43$ ) and height ( $1.65 \pm 0.09$ cm). For the completion of the purpose of investigation, purposive sampling techniques

was adopted. Inter-collegiate level sportsmen, who participated in university competition in different sports and games were taken by the investigator. All the one hundred twenty sportsmen were from four different sports disciplines. Thirty sportsmen were selected from each discipline i.e. of Football, Athletics, Cricket and Shooting. All the respondents of this study were taken from B.P.Ed (55.83 %) and M.P.Ed degree courses (44.17 %).

## Instrumentation:

The dietary practice questionnaire prepared by Nazni and Vimala (2010) was adopted for the purpose of data collection. from the selected male sportsmen studying in physical education colleges. The adopted questionnaire consisted of ten questions related to dietary practice by the sportsmen.

## RESULTS

To assess the nutrition related fact of college sportsmen of Jalpaiguri district, Frequency and Percentage were analyzed and data pertaining to this have been presented in Table 1.

**TABLE 1: DIETRY PRACTICES OF SPORTSMEN**

S.NO	Statements	Yes Frequency ( %)	NO Frequency ( %)
1	Is your dietary pattern change at the time of competition	52 (43.33)	68 (56.67)
2	Do you skip meals prior to competition	38 (31.67)	82 (68.33)
3	Do you consume sports drinks every day before practicing	41(34.17)	79(65.83)
4	Do you practice carbohydrate loading prior to competition	28 (23.33)	92 (76.67)
5	Do you consume glucose polymer drink (12g of glucose / 100ml) during exercise?	52 (43.33)	68 (56.67)
	(A) 250 ml (30g CHO)	A=24	
	(B) 500 ml (60g CHO)	B=28	
6	Are you having the habit of taking energy base during exercise?	72 (60.00)	48(40.00)
	(A) ½ - 1 bar (30g CHO)	A=52	
	(B) ½ - 1 bar (60g CHO)	B=20	
7	Do you consume energy gel during exercise	47 (39.17)	73 (60.83)
	(A) 1 sachet (30g CHO)	A=32	
	(B) 2 Sachet (60g CHO)	B=15	
8	Will you consume rising (or) sultanas at the time exercise?	76 (63.33)	44 (36.67)
	(A) 40g (30g CHO)	A=51	
	(B) 80g (60g CHO)	B=24	
9	Will you practice of eating bananas during exercise?	69 (57.50)	51(42.50)
	(A) 1-2 banana (30g CHO)		
	(B) 2-3 bananas (60 g CHO)	A=39	
		B=30	
10	Do you consume isotonic sports drink (6g/100ml) during exercise	50 (41.67)	70 (58.33)
	(A) 500 ml (30g CHO)	A=36	
	(B) 1000 ml (60g CHO)	B=14	

Table 1 indicates that the dietary intake by the university sportsmen were found different. The change in the dietary pattern was found in 43.33 percent of sportsmen during the time of competition. Before



the competition, skipping of meals was observed in 31.67 % of the total sportsmen. Knowledge about carbohydrate loading was indicated by 23.33 percent sportsmen. During exercise, consumption of glucose polymer drink was observed in 43.33 percent of the sportsmen. 34.17 percent of sportsmen takes sport drink every day before practicing. 60 % of the sportsmen were found to have a habit of taking energy bars during exercise, During exercise, consumption of energy gel was absent in 60.83 % of the sportsmen, The consumption of rising CHO was indicated by 63.33 percent of the sportsmen at the time exercise. 41.67 percent of the sportsmen were found to have a habit of isotonic sports drinks

## DISCUSSION

Dietary practices of the male sportsmen were found to have different pattern of intake food supplements. A variation in the dietary style was indicated by more than fifty percent of sportsmen during exercise. The skipping of meals before the competition, consuming the glucose drink during exercise, and sport drink every day before practicing were found among more than one fourth of the total sportsmen. One fourth sportsmen have less Knowledge of carbohydrate loading during competition.. Habit of taking energy bars and consumption of energy gel during exercise was practiced by sixty percent of the sportsmen. The consumption of rising of CHO was practiced more than 60 % from total sportsmen during exercise. Isotonic sports drinks consumption habit was indicated by less than half of the total sportsmen.

## CONCLUSIONS

1. University level male sportsmen were found to have lack of nutritional knowledge inference.
2. University level sportsmen were found to have different Sports specific dietary practices.
3. Variation in dietary practices of male sportsmen were found to have strong influence of coaches, family members, and Indian culture..

## FUTURE DIRECTION FOR RESEARCH

The similar study may be replicated on more population of male sportsmen. This study may be conducted to find out the differences in male and female sportsmen in their nutritional practices India and abroad.

## RECOMMENDATION

For improving the performance of the athletes, we should provide the continuous education by conducting through seminars, workshops, conferences and audio-visual aids by the subject experts. Being the differentiation in the culture of India, Expert of nutrition and diet should provide the dietary pattern for the different region of India as well as in abroad .

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