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Evaluation and Comparison of Nutrition Knowledge of Male Athletes

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Abstract – The teachers and coaches possessing and applying adequate knowledge of sports nutrition are more successful in their career. This study aims at evaluating the nutritional knowledge of the undergraduate students of L.N.I.P.E., Gwalior. The study sample consists of 100 students i.e., 25 students each from B.P.Ed1st year, B.P.Ed2nd year, B.P.Ed3rd year and B.P.Ed 4th year. The questionnaire used in this study was prepared by Yahya Ozdogan and Ayse Ozfer Ozcelik. It contains 30 questions which have to be answered as true or false. The data is evaluated using SPSS 16.0 program. ANOVA test is used for determining the result and Post Hoc test for comparing the results. There was significant difference between the knowledge of B.P.Ed 4th year students and the rest of the batches. There was no significant difference between the knowledge of B.P.Ed 1st year, B.P.Ed 2nd year and B.P.Ed 3rd year.

Key Words – Nutrition, Athletes

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INTRODUCTION

Sports nutrition deals with the study and practice of nutrition and emphasis on improving athletic performance. Basically the nutrition helps in achieving and maintaining the health. Specifically it aims in providing the fuel for physical activity, facilitating the repair and rebuilding process after hard physical work, and maximizing athletic performance in competition (Fink et al., 2016) .Thus, the outcome of the whole training depends on the nutrition. The trainers, coaches or the sportspersons must have a basic understanding of nutrition. Often it is found that nutrition is the subject which is given the least importance when preparing a training plan. The athletes are mostly dependent on coaches for nutritional advices. So the coaches must have adequate knowledge about it. Prospective teachers and coaches for physical education and coaching must be given proper education about the nutrition so that they can easily guide their students for an optimal health and performance (Yeung and Laquatra,2003).In India it is noticed that the degree programs which prepare the students for physical educationist or coaches are mainly focused on training plans, skills, movements etc. The focus on the nutrition is the least or none. So this study aims at evaluating the nutritional knowledge of the different batches of undergraduate students in physical education who all will be the future physical educationist.

METHODOLOGY

The study sample consists of 100 students who are randomly chosen (25 students each from 1st year, 2nd year, 3rd year and 4th year) and studying Bachelor of Physical Education (B.P.Ed) in L.N.I.P.E. The questionnaire consists of 30 true or false questions regarding sports nutrition and is provided to the sample .In questionnaire only 21 questions are used for evaluating the knowledge and the remaining 9 questions are dysfunctional. For each correct answer 1 point is awarded and for each wrong answer 0 point is awarded. The data is evaluated by using SPSS 16.0 program. ANOVA test is used for determining the result.

RESULT

Table-I: Demography of Students

BPED	N	Mean	Std. deviation
1st year	25	10.8400	2.47790
2nd year	25	12.0400	1.79072
3rd year	25	10.8800	3.56277
4th year	25	13.5600	2.25610
Total	100	11.8300	2.79630

Table-I indicate the descriptive statistics of nutritional knowledge of male athletes were total number of samples(N)=100,average mean=11.830 and the average standard deviation =2.796.

Table-II: Computation of Anova to Evaluate the Nutritional Knowledge of Male Athletes

	Sum of squares	DF	Mean square	F	Sig
Between groups	122.990	3	40.997	6.044	.001
Within groups	651.120	96	6.782		
Total	774.110	99			

TABLE-II There is a significant difference between the knowledge of different batches (1st year, 2nd year, 3rd year and 4th year) at the p<.05 level for the three conditions [F(3,96,99) = 6.044, p = .001]. Therefore required a post hoc test to figure out which all groups have significant difference.

Table-III: Post HOC Comparison of Nutritional Knowledge of Male Athletes

Groups (I)	Groups (J)	Mean Difference (I-J)	Std. Error	Sig
1.00	2.00	-1.20000	.73661	.107
	3.00	-.04000	.73661	.957
	4.00	-2.72000*	.73661	.000
2.00	1.00	1.20000	.73661	.107
	3.00	1.16000	.73661	.119
	4.00	-1.52000*	.73661	.042
3.00	1.00	.04000	.73661	.957
	2.00	-1.16000	.73661	.119
	4.00	-2.68000*	.73661	.000
4.00	1.00	2.72000*	.73661	.000
	2.00	1.52000*	.73661	.042
	3.00	2.68000*	.73661	.000

Table-III

From the post hoc comparison, it can be concluded that there is a significant difference between the knowledge of 4th year students and the other three batches (1st year, 2nd year, and 3rd year). There is no significant difference between the knowledge of 1st year, 2nd year and 3rd year students.

DISCUSSION AND CONCLUSION

This study evaluated the nutritional knowledge of male undergraduate students (B.P.Ed 1st year, B.P.Ed 2nd year, B.P.Ed 3rd year, B.P.Ed 4th year) studying Bachelor of Physical Education in L.N.I.P.E, Gwalior. Along with their studies they are also involved in their specific game practices. Since they are involved in much physical activity their nutritional needs differ from normal university students. So those who are not having knowledge of nutrition will not be aware of their nutritional needs.For the statement “eating carbohydrates makes you fat”, 51% of participants answered it correctly as false.The results of another study show that 74% of males and 75% of females also answered the same statement correctly (Rosenbloom et al, 2002). This shows that the athletes do have little knowledge about the relation between carbohydrates and fat. But many athletes still believe that they need to avoid carbohydrates to better their body composition.For the statement “protein is the main energy source for the muscle”, 60% of participants answered it wrongly as true. An athlete should consume enough amounts of carbohydrates in order to replenish the glycogen stores (Cotugna et al., 2005).75% of participants correctly answered the statement, “fats have important roles in the body”, as true. Some of the major functions of fats include supplying fuel for tissues, insulating the nerve fibers, protecting organs etc. Nutritionist recommends that fats should provide 30% of calories of the total calories needed for a person (Yeung and Laquartra, 2003).64% of the participants correctly answered true for the statement “iron deficiency anemia results in a decrease in the amount of oxygen that can be carried in the blood”. Iron is needed for the production of myoglobin and hemoglobin. For the statement “the body can synthesize vitamin D upon exposure to the sun”, 66% of participants answered it correctly. Few participants (10%) answered that skipping meals are justifiable in order to cut weight. In another study which was conducted on young male hockey players showed that 84% of them agree that skipping meals are not a justifiable way to lose weight (Juzwiak and Ancona,2004).From few studies we can see that the number of people having adequate knowledge about vitamins and minerals are very less. (Zawila LG, Steib CSM, & Hoogenboom B, 2003) (Jacobson BH & Aldana SG, 1992) (Zawila et al., 2003).

REFERENCE

Cotugna N, Vickery CE, & McBee S. (2005). Sports nutrition for young athletes. *The journal of school nursing*.

Fink, H. H., burgoon, L. A., & Mikesy, A. E. (2006). *practical application in sports nutrition.* jones and bartlett.

(n.d.). Retrieved from https://en.wikipedia.org/wiki/Sports_nutrition

(n.d.). Retrieved from https://en.wikipedia.org/wiki/Sports_nutrition

Cotugna N, Vickery CE, & McBee S. (2005). Sports nutrition for young athletes. *The journal of school nursing* .

Fink, H. H., Burgoon, L. A., & Mikesy, A. E. (2006). *practical application in sports nutrition.* jones and bartlett.

Jacobson BH, & Aldana SG. (1992). Current nutrition practice and knowledge of varsity athletes. *The journal of strength and conditioning research*, pp. 232-238.

Juzwiak CR, & Ancona-Lopez. (2004). Evaluation of nutrition knowledge and dietary recommendations by coaches of adolescent brazilian athletes. *Int J Nutr Exerc Metab*, pp. 222-235.

Rosenbloom CA, Jonnalagadda SS, & Skinner R. (2002). Nutrition knowledge of collegiate athletes in a division I national collegiate athletic association institution. *Journal of the American Dietetic Association*.

Yeung DL, & Laquatra I. (2003). *HEINZ handbook of nutrition.* Heinz company.

Zawila LG, Steib CSM, & Hoogenboom B. (2003). The female collegiate cross country runne, nutritional knowledge and attitudes. . *Journal of athletic training*, pp. 67-74.

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