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A study of knowledge of Protein intake among youth

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Abstract

The current study has been conducted to fathom the depth of knowledge and awareness of protein rich food in every day life for the age group of 18-24 years. The young generation of today is prone to fast food and many a time is unaware of the nutritious value of food and the importance of a protein rich diet. A sample size of 182 in the said group was collected through a questionnaire from the three main faculties of Arts Science and Commerce to understand food intake and the knowledge of protein requirement for the body . The analysis of the data was carried out using the R software. The socio-economic and demographic profile of the students was studied and analysed. The hypothesis of interest were tested using Wilcoxon's rank sum test, and the Kruskal Wallis test. The study revealed that both male as well as female students were knowledgable about protein intake and that students from different streams differed in their knowledge The Undergraduate and post graduate students were found to be having the same awareness of protein intake.

Key words : Nutritional value; Weight; Calorie; Protein Intake.

In this era of the 21st century the nation is progressing by leaps and bounds. Developments and advances in almost every sector has brought about promising careers in the modern age. As per the old saying , "Health is Wealth", nutrition is one of the most important parameters in making a healthy body and mind. The rat race of this day has brought about stress and health issues in its wake. In addition to that the youth of today is seen to imitate the western culture as an impact of Information and Communication technology. In the entire scenario they seem to be least bothered about nutritious and healthy food intake.

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Today's world witnesses heavy pay packet, and a much lavish lifestyle. But the generation of today is sacrificing on the health issue. They primarily tend to rely on fast food thereby spoiling their health in the long run. The present study was hence done in view of understanding the pattern and knowledge of protein consumption among College and University students.

The current study and the results obtained there of is purely based on primary data. A questionnaire consisting of thirty four questions was designed through a Google form and the data was collected from the undergraduate and post graduate students for the different streams, across University and Colleges in the city of Mumbai. The questionnaire was bifurcated under three headings and questions pertaining to each heading were included under each category as shown below:

Category I-Personal/General questions
Category II-Intake of food questions
Category III-Knowledge based questions.

The total size of the sample was 153. The data consisted of 83 male students and 70 female students The analysis was carried out using the R software.

The analysis of the sample data was done for socio-economic and demographic profile which showed:

1. The Education level of father
2. Occupation of the father and
3. Monthly income of the father

The socio-economic and demographic profile is shown in Table-1. The study showed that 31% of student's head of the family had completed Middle School Certificate and 28% were graduates. The family income per month for about 48% of the investigated students was above Rs. 46,129, and about 41% of them had an income below Rs. 30, 830. This result revealed that most of the University students belonged to the upper lower, upper middle and upper section of the community.

In this study we considered 15 food items which are rich in proteins like egg, Milk, Yogurt, different kinds of seeds, fish etc. We have checked for the association of Socio economic Classes and the frequency intake of protein enrich items shown in Table-2. Some of the findings are as follows:

a. There is association between socio economic classes and intake of cheese, soyabeans, egg, fish and Protein powder. Also as socio economic class increases frequency of intake of cheese also increases indicating a direct relationship between them.

b. As socio economic class increases frequency intake of soyabean, fish and protein powder decreases. Similarly, we have checked for the association between Body Mass Index and the frequency intake of protein enrich items. Study reveals that they are not associated. We have also observed that frequency of eating junk food and the frequency intake of protein enrich items are not associated.

Analysis and Tables :

Table-1. -Socio-economic and Demographic profile of youth

Demographic variables	Males		Females		Total	
Head of the family's Education	Number	%	Number	%	Number	%
Illiterate	2	2%	1	1%	3	2%
Middle School Certificate	22	27%	26	37%	48	31%
High School Certificate	20	24%	17	24%	37	24%
Intermediate or Diploma	3	4%	3	4%	6	4%
Graduate	26	31%	17	24%	43	28%
Professions and Honours	10	12%	6	9%	16	10%
Family income per month						
Below 6174	3	4%	3	4%	6	4%
6,175-18,496	23	28%	18	26%	41	27%
18,497-30,830	9	11%	7	10%	16	10%
30,831-46,128	8	10%	6	9%	14	9%
46,129-61,662	12	14%	9	13%	21	14%
61,663-1,23,321	11	13%	13	19%	22	14%
above 1,23,322	17	20%	14	20%	31	20%
Occupation of head of family						
Unemployed	1	1%	0	0%	1	1%
Elementary occupation	17	20%	17	24%	34	22%
Plant and machine operators and Assemblers	3	4%		0%	3	2%
Craft and Related Trade Workers	3	4%	2	3%	5	3%
Skilled workers and shop and market Sales Workers	9	11%	14	20%	23	15%
Clerks	10	12%	6	9%	16	10%
Technicians and associate professionals		0%	1	1%	1	1%
Professionals	17	20%	13	19%	30	20%
Legislators, Senior officials and managers	23	28%	17	24%	40	26%

Table-2. Association of Socio economic Classes and Different food items

Variable 1	Variable 2	Test Statistic	P value	Decision
Socio economic Classes	Milk	-0.03772409	0.587	Do not Reject Ho
	Yogurt	-0.05992143	0.3719	
	Paneer	0.01533527	0.8228	
	Cheese	0.1860835	0.006408	Reject Ho
	Tofu	-0.136718	0.05253	Do not Reject Ho
	Pumpkin seeds	-0.1134771	0.102	
	Soya.beans	-0.2387959	0.0004006	Reject Ho
	Chia seeds	-0.02794177	0.687	Do not Reject Ho
	Almonds	-0.1018544	0.1358	
	Peanuts	-0.1050988	0.1183	
	Egg	-0.1998627	0.002885	Reject Ho
	Chicken	-0.1214182	0.07119	Do not Reject Ho
	Fish	-0.1588593	0.01939	Reject Ho
	Red meat	-0.09788194	0.1606	Do not Reject Ho
	Protein powder	-0.1801056	0.01028	Reject Ho

Testing of Hypothesis :

The following hypothesis were tested with regard to the data for gaining further insight using Wilcoxons rank sum test, and the Kruskal Wallis test, for testing the hypothesis that Males and Females both have same knowledge about protein or not and to test the hypothesis that: Students from all three streams have same knowledge about protein or not

I - Ho: Males and females both have same knowledge about protein
v/s
H1: Males and females both do not have same knowledge about protein
The analysis shows a P value: 0.2818 and the wilcoxon statistic as W = 3195
Since p= 0.2818>0.05 we Do not reject Ho at 5% level of significance and conclude that both Males and females both have same knowledge about protein.

II-Ho: Students from all three streams have same knowledge about protein.
v/s
H1: Students from all three streams do not have same knowledge about protein
Here the P value was 0.02981 which is less than 0.05 and the Kruskal Wallis statistics was 8.9616. Hence we concluded that the null hypothesis Ho will be rejected at 5 % level of significance. Students from all three streams do not have the same knowledge about protein.

Next we have conducted Wilcoxon rank sum test to check which stream is significantly different from other. From the given sample we got Science students having better knowledge about protein than Arts and Commerce students. The study showed that Under Graduate and Post Graduate students

have the same knowledge about protein. Further the hypothesis about daily requirement of protein was tested for which we considered the one sample proportion test. The null and the alternative hypothesis were:

Ho: 50% students don't know the daily requirement of protein.

v/s

H1: Less than 50% students don't know the daily requirement of protein

Here the P value= 0.03765<0.05 and hence Ho was rejected.

Some findings are as follows:

1. Less than 50% students don't know the daily requirement of protein.
2. Equal proportion of male and females are not aware about the daily requirement of protein.
3. Females have more awareness than males about daily requirement of protein.
4. 50% students check the content of protein when they purchase packed food
5. Equal proportion of male and females check the content of protein when they purchase packed food.

On the whole the study highlighted the awareness of protein among the young generation of today. The college and University students must increase the intake of nutritious food and wholesome diet as it goes a long way in building up a healthy society and thereby a healthy nation.

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