



## Food Habits and Nutritional Awareness in College Students - A Comparative Study

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**Abstract:** *Food, the basic need of a living being is not only to satisfy hunger, but also to provide physical and mental well-being. Proper nutrition, which means the presence of nutrients in the required amounts, is needed from the everyday diet to maintain the health standards. However, eating just anything does not fulfil the demands of nutrients that the body needs. Malnutrition and under-nutrition have posed a major threat to the vulnerable section of the society. Today, many public and private sector entities are actively fighting the war against malnutrition through multi-pronged approaches, which include advertising in print media etc. An effort has been made to gauge and measure the nutritional awareness of students studying in Government Girls College, Shimla through a comparative survey. Students from three different streams, i.e. humanities, science and commerce had very little knowledge about the nutritional aspect of foods which were included in their daily meals.*

**Key Words:** *Malnutrition, under-nutrition, nutritional awareness, basic nutritional facts.*

### Introduction:

Our health is directly related to the food we eat and unsatisfactory nutritional habits certainly have undesirable and long lasting effects on health. In the rapidly changing world, new and attractive food products appear in the market every day and supermarkets are full of non-traditional, 'easy to cook' and 'ready to eat' food items, thereby distracting people in making selection and food preferences nutritionally imbalanced. Fast food style, unconventional meals and faulty eating habits can lead to either under nutrition or over nutrition. Modernization of food has separated the palatability from nutrition, making nutrition education essential for children and people of all ages. As Gupta et.al. (1990) says that nutrition education is a process by which attitudes, environmental influences and understanding about food are converted into practices, which are nutritionally sound and consistent with socio-

economic background of the individuals. Brown et. al. (2000) also emphasized the role of nutrition education to address the numerous personal and environmental influences on food choices and dietary behaviors as potential mediators of action and behavior change for young consumers especially adolescents. He suggested that food habits of the "fast food" style of these young consumers can lead to nutritionally imbalanced meals.

Various newspapers like 'The Hindu', 'The Tribune' and magazine 'India Today' of January 11,2012 reported Dr. Manmohan Singh, the then Prime Minister of India's deep concern over research study by Hyderabad-based Naandi Foundation on the status of child malnutrition in India and described it as "national shame". The study revealed shocking results for all three standard indices used to measure children's nutritional status- stunting(height for age); wasting (weight for

height); and underweight (weight for age). The survey revealed that 59% children were stunted; 42% underweight and 11.4% wasted (HUNGaMA report, 2012). Most studies suggest that poverty is the main reason for undernourishment in children (WHO, 1997; Wagstaff and Wantanabe 2000) Malnutrition is a discrepancy between the demand and supply of nutrients to the body. The commonly known reasons being poverty and non-availability of food might not be the only ones as a large section of the population is ignorant about nutritional facts and also indulges into the nutritionally undesirable practices and beliefs related to food. It is, therefore, not only poverty but also lack of nutritional knowledge which seems to be worsening the condition.

Current eating patterns are associated with four of the ten leading causes of death in developed countries such as United States: coronary heart disease, some types of cancer, stroke and type-2 diabetes (Frazao, 1999; National center for Health Statistics (NCHS), 2003. Freeze (1996) also associated dietary factors with osteoporosis, which could be a major cause of bone fractures in older persons

A possible line of action in this field could be to educate the people about nutrition and its importance in their daily meals. The present study endeavors to identify the nutritional awareness among the undergraduate students from different streams in Government Girls College, Shimla. The education of a girl child can be of utmost importance in this field as it is rightly said that, you educate a woman, you educate the whole family.

### Objectives

The present study was undertaken with the following objectives:

To study the level of nutritional awareness among the undergraduate students.

To understand the role of education in the formation of awareness of nutrition. A comparative approach is adopted to facilitate this and students from different streams, i.e. humanities, sciences and commerce studying in Govt. Girls College, Shimla is studied.

To understand the reasons for a sudden rise in nutritional deficiencies among the students. This could be attributed to the easy availability of convenient and trendy foods.

To highlight the importance of nutrition education in combating under-nutrition and malnutrition.

To underline the role of nutrition in making the individuals more aware about their food choices and dietary patterns

### Methodology

The present study is based on the primary and secondary sources of data. Primary data were collected in the form of a survey. The survey questionnaire consisted of 25 questions pertaining to important aspects of nutrition. The five major aspects on which the framework of questionnaire was formulated are as follows:

Knowledge of basic nutrients and their sources.

Deficiency of vitamins and minerals.

Therapeutic diets.

Dietary recommendations during different diseases.

Choice of foods and dietary patterns.

Each question had three options, out of which one was correct and had to be ticked as right (✓) .

The sample consisted of 900 students from Govt. Girls College; Shimla. The questionnaires were randomly distributed to the students of undergraduate classes in three different streams i.e.

Humanities

Sciences

Commerce

### Analysis

A comparative study was performed in which the comparison was made between the students of humanities, sciences and commerce. None of the students had taken any formal education in nutrition. However, the students studying biology as one of their subjects in science stream had some knowledge on nutrition. The questionnaires filled by the students were marked with great precision. Equal weightage was given to each question, thereby making the total number of marks as 25. The correctly answered the question was given one mark.

The grading of scores was done on the following basis:

12 and below – Poor

13-15 – Average

16-18 – Good

19-20 – Very Good

21 and above – Excellent

### Discussion

The table1 and figure 1 and 2 clearly show that out of 900 students 35% had good knowledge about good nutrition, followed by 26% in an average 20% in poor, whereas only 12% could obtain very good and only 7% had excellent knowledge.

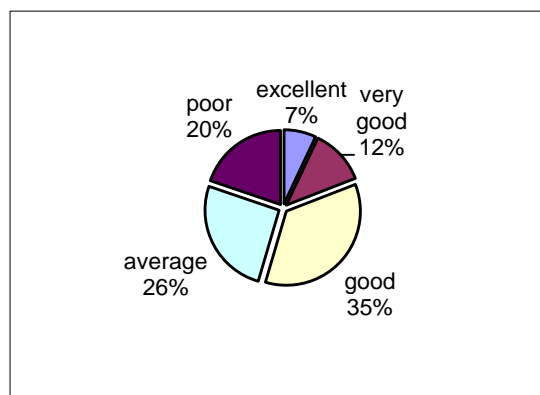
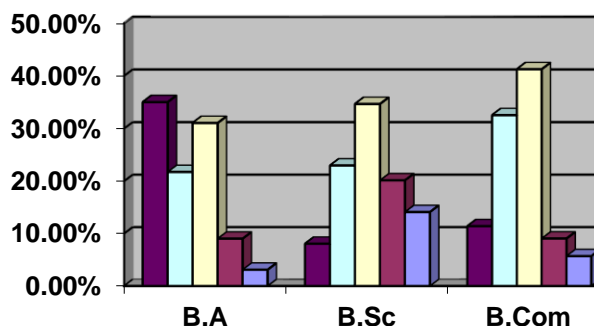


Figure 1. Nutritional awareness in 900 students.

Table 1. Scores and % age obtained by students of different streams

Class	Poor	Average	Good	Very Good	Excellent	Total
	12 & below marks	13-15 marks	16-18 marks	19-20 marks	21 and above marks	
B.A.	124 (35.03%)	77 (21.75%)	110 (31.07%)	32 (9.04%)	11 (03.11%)	354
B.Sc.	20 (08.06%)	57 (22.99%)	86 (34.68%)	50 (20.16%)	35 (14.11%)	248
B.Com.	34 (11.41%)	97 (32.55%)	123 (41.28%)	27 (09.06%)	17 (05.70%)	298
<b>Total</b>	178 (19.78%)	231 (25.67%)	319 (35.44%)	109 (12.11%)	63 (7.00%)	900 100%

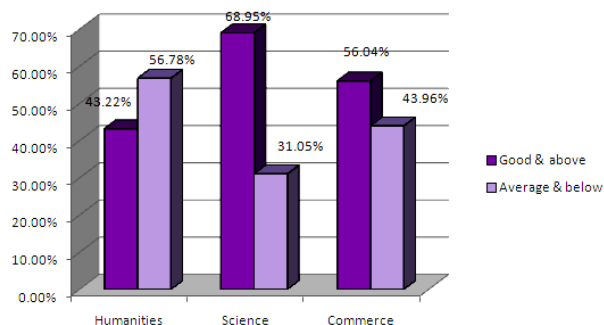


**Figure 2. %age of nutritional awareness in different streams**

The discussion on the results depicted in the above table is as follows:

As hypothesized, the nutritional awareness of science students, especially those who studied biology as one of their subjects was found to be better than the students of the humanities and commerce. However, commerce students fared better than the students of the humanities (figure 3). 68.95% of science students have been graded as above average, followed by 56.04% of commerce students in good and above category. However, only 43.22% students in the humanities were placed in this category.

Inversely speaking, 31.05% students in science category were average or below average, whereas in case of humanities 56.78% were adjudged average and below. This figure is 43.96% in the case of commerce students.



**Figure 3. Comparison between good and above and average and below in students of different stream**

The above results reflect diametrically opposite levels of awareness amongst the students of sciences and humanities. Lowest percentage, i.e. 8.06% of students from science stream was found in the poor category, whereas the largest sections i.e. 35.03% had poor and insufficient knowledge in the humanities and this is alarming.

On the other hand, in the excellent category, the percentage, i.e. 3.11% were lowest of students from humanities as compared to 14.11% in the sciences. Thus, the percentage of students in excellent category were more than four times than that of humanities stream. Surprisingly, the percentage of students in the poor category in the humanities stream were also found to be four times more than those in science stream. This establishes that the students in science stream have better nutritional awareness than the students in the humanities.

The students from commerce stream fall between the students from sciences and humanities. The majority of these students, i.e. 73.83% were placed in the category of average and good.

## Conclusion

The present study shows that the students of Government Girls College, Shimla are not conscious of the nutritional aspect of their diets as only about 55% of them were adjudged in good to excellent category. The rest of the 45% were ranked average to poor. The lack of humanities stream, 56.78 % of these students lacked basic knowledge of nutrition and to our concern these make more than 70% of total college strength. In the session 2012-2013, 79% girls had opted for humanities, 9% science and 22% commerce. On the other hand students from science stream (68.95%) and commerce stream (56.04%) had better knowledge of nutrition. But often we find that at this age children binge and give in to the peer pressures especially when they are eating away from home. Brown et al (2000) stressed that even if the young consumers were aware of healthy eating, their food preference behavior did not always appear to reflect such knowledge, particularly within the school and social environments.

It is evident that attitude towards diet in adolescent girls and boys is quite unhealthy. The advent of convenience foods and junk foods has surprisingly changed the dietary pattern which can lead to fatal diseases in the later years. Koplan et, al., (2005) in their study pointed out that the problem with eating out is that the foods in restaurants have high amount of total fat which increases the intake of calories. Not only are this but the portion size of the food items eaten larger than the ones served at home. Probably these children with little knowledge of foods and nutrition are not able to resist the temptations and aromatic mouth-watering dishes. Studies have shown that on the days children eat away from home, they tend to eat more fast foods, more sugar sweetened drinks and fewer fruits and vegetables thereby adding to their calorie

and fat value (Bowman et. al., 2004). There is a dire need to awaken these children against their faulty eating habits so that they can stop this kind of indulgence and start eating quality products. Healthy body and a healthy mind are a prerequisite for a fulfilling life, which means that they should be able to achieve the goals, they value most.

The research therefore indicates that today's youth is not conscious of their eating habits and the dietary components present in their daily meals. These students must be given some input in nutrition so that they can understand its importance in providing normal physical, mental and social wellbeing. It is rightly said that healthy habits developed early in life can promote healthy eating as an adult (Devadas, 1981). Moreover, nutrition education in a girl's college can be of great value as women play an important role by being the linchpin of the family, she can really bring about a positive change.

## Recommendations

The ignorance here is not bliss, but a curse as it has crippled a major section of the Indian population with under-nutrition and malnutrition, which raises a serious threat to life (Gillespie and Haddad, 2003; Seetharamet. al., 2007), with undernourished children showing signs of ill health leading to poor longevity and high mortality rate in the vulnerable section of the society (Biswas, 2010; Briend and Zimick, 1986). On the other hand, the literate and the well to do section of the society are also facing problems like obesity, diabetes mellitus and chronic heart diseases. WHO consultation on obesity (2000) pointed out that developed countries are experiencing increases in body mass index (BMI) and less developed countries are also showing increases in obesity as they are becoming more affluent.

Malnutrition, a double edged sword encompasses both under nutrition and over nutrition. Knowledge alone seems to be the remedy for this ignorance. Previous researches on the effectiveness of nutrition education confirms that education is one of the best means to break the vicious circle of under nutrition and underdevelopment (Devdas, 1981; Rao, 1978). Nutrition education is indispensable not only as a means of raising living standards, but more importantly as an activity to avoid malnutrition.

Knowledge of what people eat and why, would be the first step in effecting the changes needed in the desirable direction. The information regarding nutrition has to begin at an early age and could be taught through many educational programmes which could include the nutritive value of foods; judicious choice of foods while planning daily meals; supplementation and substitution of the diets with low cost and local foods; personal hygiene and sanitation in handling of foods; healthy cooking methods for preserving maximum nutrition in foods; enhancement of nutrients by sprouting and fermentation; irregular eating and missing meals leading to deficiency diseases.

Hence, nutritional awareness assumes great importance as it is necessary to overcome the ignorance caused by age old superstitions, food fads, fallacies and beliefs. At the same time, there is an urgency to monitor the changing dietary habits of today's generation who is often binging on the luscious fast foods oblivious of the quality of ingredients used in their processing and preparation.

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