



Knowledge, Attitude and Practice on Balanced Diet among Female College Students

S. Aakriti^a, K. Dinsung^a, H. Dharshinipriya^a, T.M Nithikishnani^a, G. Madhubala^a, and Dr.B.Premagowri^b

^a.PG Student, Clinical Nutrition and Dietetics, PSG College of Arts and Science, Coimbatore.

^b.Assistant Professor, Clinical Nutrition and Dietetics, PSG College of Arts and Science, Coimbatore

ABSTRACT

A healthy and balanced diet is essential for good health and nutrition. It protects against many chronic non communicable diseases. Therefore the study aimed to know the knowledge attitude and practice of balanced diet and healthy eating among female college students. The data was collected from 107 participants to whom questionnaires were sent online to be filled by them which consisted question about their knowledge attitude and practice of balanced diet in everyday life. The results revealed that the subjects were well known about balanced diet and food groups' majority of subjects that 81 % of the subjects were aware of balanced diet and different food groups. Majority of them (61%) consumed cereals, 52.3% pulses, vegetables (78%), milk (54%), sugar (65%), oil and ghee (78%) daily. Merely 32% of the study participants consumed fruits daily, 53% of the subjects consumed meat/fish/poultry/eggs and only 11% of the participants had fast foods daily. It was also found that 78% of the subjects believed that balance diet can prevent certain illness and 57% of the subjects agreed to the concept of skipping meals to maintain good physique. Most of the selected female college students had poor eating habits, although the majority had good nutrition knowledge. The colleges are encouraged to provide a specializing team in health promotion on personalized nutrition to practice the healthy balanced diet among the college students.

Keywords: Balanced diet, Food Groups, Knowledge, Attitude, Practice.

1. Introduction

It is well established that an inadequate diet and low levels of physical activity are associated with many non-communicable diseases, besides having many social and economic consequences (Naughton et al., 2015). Food behaviour is a complex process influenced by many factors, such as socioeconomic status, demographics, taste, convenience, food cost, lifestyle characteristics, security, cultural and religious beliefs or nutrition knowledge (Spronk et al., 2014). Nutrition knowledge is a multifactorial construct and it is affected by several aspects such as age, sex, level of education and socio-economic status (Hendrijet et al., 2008). Therefore, the specific contribution of nutrition knowledge to dietary behaviour in view of a healthy diet is considered complex and some scientific evidences suggest that nutrition knowledge is a major factor in promoting favourable health and dietary changes (Rustad and Smith, 2013)

According to the recommendations, a healthy diet should contain a high amount of fruit, vegetables and dairy products, a good portion of starchy foods like bread, potatoes and pasta, a moderate portion of meat or fish, and not too much saturated fatty acids, added sugars or refined grains. It is also important the adequate intake of water and the energy intake should be according to individual's needs (Guenther, 2013)

Eating habits among young adults are an important health concern, because in most cases involve a transition from secondary school to university where they need to adapt to a new social environment that often translates into poor eating habits (Deliens et al., 2014) . The information about

* Dr.B.Premagowri. Tel.: +91 9150220545.

E-mail address: premagowri@psgcas.ac.in

eating habits, especially among college students is still need and it is crucial to perform more studies in this area, in order to promote more efficient health strategies among this group. Hence the present study was conducted to know the knowledge, attitude and practice towards balanced diet among the female college students.

2. Methodology

The study was conducted among undergraduate and post graduate female college students between 17 to 24 years of age from different geographical areas of the country, to examine their knowledge, attitude and practice about a balanced diet and its effect on their health. Information was collected via a lifestyle questionnaire framed in Google form and the link was sent to the college students through whatsapp and around 107 students submitted the forms completely. Incomplete forms were excluded from the study. A questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents. The questionnaire consisted questions to analyze knowledge, attitude and practice about balanced diet and its implementation in everyday life as well as their perception towards food and healthy living. The received responses were analyzed using Microsoft Excel sheets and the results were expressed in frequency and percentage.

3. Results and discussion

3.1 Familiarity and knowledge about balance diet

Yahia et al., (2016) in their study indicated that female students have greater nutrition knowledge than male students (the mean nutrition score for women was 5 points higher than that of men ($P = 0.01$)). Nutrition knowledge was negatively correlated with fat and cholesterol intake.

Table 1 Knowledge about balance diet

Knowledge about balance diet	No of responses (n=107)	
	Frequency	%
Diet containing variety of foods in certain proportions	74	69
Diet containing only cereals, pulses and meat products	7	7
Consuming equal amounts of food everyday	13	12
Diet containing more vegetables and fruits	13	12
Total	107	100

In the present study among the selected students majority of them (81%) were familiar and only 19% were unfamiliar with balanced diet and aware about food groups respectively. From table 1 the knowledge about the balanced diet was analyzed and found that 69% of the study participants knew the right definition for balanced diet.

3.2 Attitude towards balance diet

Alves and Precioso (2020) in their study the university students were shown to have low healthy dietary knowledge, moderate healthy dietary attitude and unhealthy dietary habits during the last 7 days. Regarding healthy dietary knowledge, the female students and respondents of natural sciences had the highest score. Considering healthy dietary practice, the older students and the students who changed residence at the time of entrance to higher education had the lowest score. There was a statistically significant and positive correlation between knowledge and practice, knowledge and attitude and finally between attitude and practice.

Table 2 Attitude towards balance diet

Attitude towards balance diet	No of responses (n=107)					
	Yes		No		May be	
	Frequency	%	Frequency	%	Frequency	%
Balance diet can prevent against certain disease	84	78	5	5	18	17
Agree the concept that restricting certain foods maintain good physique	61	57	42	39	4	4

3.3 Practice towards balance diet

a. Skipping of meals

Among the respondents 52% (56 members) skipped their meals and reported the reason for skipping meals as lack of time (30%), lack of appetite (32%), food preferences (25%) and diet practices (13%).

b. Adherence of food groups by the participants

Yun et al., (2018) in their study reported that the majority of the study subjects ate regular daily meals, but more than half skipped breakfast. Frequent snacking, fried food consumption at least three times per week and low intake of daily fruits and vegetables were common. The frequency of visits to fast food restaurants was significantly higher in the overweight/obese. 25.4% of the students exercised at least three times per week. Almost all students are aware of balanced nutrition and the food pyramid.

Table 3 Adherence of food groups by the participants

Food groups	Frequency of intake (n=107)							
	Daily		Weekly Once/ Twice		Sometimes		Never	
	No	%	No	%	No	%	No	%
Cereals	65	61	22	20	20	19	0	0
Pulses	56	52.3	42	39.3	9	8.4	0	0
Oil/Ghee	83	78	9	8	15	14	0	0
Vegetables	83	78	14	13	10	9	0	0
Fruits	34	32	25	23	48	45	0	0
Milk	58	54	9	8	32	30	8	7
Meat/Fish/Egg/Poultry	16	15	56	53	26	24	9	8
Sugar	69	65	15	14	23	21	0	0
Fast foods	12	11	31	29	34	32	30	28

It was found from the above table that majority of subjects (61%) consumed cereals, 52.3% pulses, vegetables (78%), milk (54%), sugar(65%), oil and ghee(78%) daily. Merely 32% of the study participants consumed fruits daily and 65% of the respondents included sugar in their diet daily. Most of the subjects consumed meat/fish/poultry/eggs weekly once (53%) and 8% never consumed meat/fish/poultry/eggs. Only 11% of the participants had fast foods daily and 30% never took fast foods.

4. Conclusion

The present study show that majority of the college students was aware of balanced diet and different food groups and its importance in prevention of diseases. Among the most relevant results it was found that most people consumed cereals, pulses, vegetables and sugar daily whereas daily fruit consumption found to be low. Also the fact that most people believed in skipping one or the other food groups in order to maintain good physique. Most of the selected female college students had poor eating habits, although the majority had good nutrition knowledge. By way of recommendation, the colleges are encouraged to provide a multi-disciplinary team specializing in health promotion which includes personalized nutrition and physical activity programmes to increase the awareness among the college students.

Acknowledgements

The authors acknowledge the management of PSG College of Arts & Science for their constant support and encouragement, also records the gratitude to the participants of the present study.

REFERENCES

Naughton, P., McCarthy, S.N. and McCarthy, M.B. (2015), "The creation of a healthy eating motivation score and its association with food choice and physical activity in a cross sectional sample of Irish adults", *The International Journal of Behavioral Nutrition and Physical Activity*, Vol. 12, available

at:<https://doi.org/10.1186/s12966-015-0234-0>.

- Spronk, I., Kullen, C., Burdon, C. and O'Connor, H. (2014), "Relationship between nutrition knowledge and dietary intake", *The British Journal of Nutrition*, Vol. 111 No. 10, pp. 1713– 676 1726.
- Hendrie, G.A., Cox, D.N. and Coveney, J. (2008), "Validation of the General Nutrition Knowledge Questionnaire in an Australian community sample", *Nutrition & Dietetics*, Vol. 65 No. 1, pp. 72–77.
- Rustad, C. and Smith, C. (2013), "Nutrition Knowledge and Associated Behavior Changes in a Holistic, Short-term Nutrition Education Intervention with Low-income Women", *Journal of Nutrition Education and Behavior*, Vol. 45 No. 6, pp. 490–498.
- Guenther, P.M., Casavale, K.O., Reedy, J., Kirkpatrick, S.I., Hiza, H.A.B., Kuczynski, K.J., Kahle, L.L., et al. (2013), "Update of the Healthy Eating Index: HEI-2010", *Journal of the Academy of Nutrition and Dietetics*, Vol. 113 No. 4, pp. 569–580.
- Deliens, T., Clarys, P., De Bourdeaudhuij, I. and Deforche, B. (2014), "Determinants of eating behaviour in university students: a qualitative study using focus group discussions", *BMC Public Health*, Vol. 14, p. 53.
- Tok Chen Yun, SitiRohaizaAhmad,corresponding and David Koh Soo Quee. (2018) Dietary Habits and Lifestyle Practices among University Students in Universiti Brunei Darussalam.*Malaysian Journal of Medical Sciences*. Vol: 25(3): 56–66
- NajatYahia, Carrie A. Brown, MelyssaRapley& Mei Chung. (2016) Level of nutrition knowledge and its association with fat consumption among college students. *BMC Public Health* (2016) 16:1047. DOI 10.1186/s12889-016-3728-z.
- Regina Ferreira Alves and José Alberto Gomes Precioso. (2020) Knowledge, Attitude and Practice on Healthy Diet among University Students in Portugal. *International Journal of Nutrition Sciences*.Vol:5(2):2-9I. DOI:10.30476/IJNS.2020.85851.1063