



**International Journal of Biology, Pharmacy
and Allied Sciences (IJBPAS)**
'A Bridge Between Laboratory and Reader'

www.ijbpas.com

**ASSESSMENT ON FOOD HABITS AND NUTRITIONAL
KNOWLEDGE OF STUDENTS STUDYING IN GOVERNMENT AND
PRIVATE PRE-UNIVERSITY COLLEGES IN BELAGAVI CITY-A
COMPARATIVE STUDY**

MANASA MH¹, ASHWINI N^{2*} AND KEERTAN MS³

1: Assistant Professor, PhD student, Nutrition and Dietetics, Department of Public Health,
JNMC, KAHER Belagavi, Karnataka, India

2: Associate Professor, Department of Public Health, JNMC, KAHER Belagavi, Karnataka,
India

3: Professor, Department of Roga Nidana, KAHER Shri BMK Ayurveda Mahavidyalaya,
Belagavi, Karnataka, India

***Corresponding Author: Dr. Ashwini N; E Mail: keertanms@gmail.com**

Received 10th Dec. 2024; Revised 25th Dec. 2024; Accepted 26th Jan. 2025; Available online 15th March 2025

<https://doi.org/10.31032/IJBPAS/2025/14.3.1027>

ABSTRACT

Introduction: “Adolescents as defined by WHO (1986) includes persons aged 10-19 years. The period of gradual transition from childhood to adulthood that normally begins with the onset of signs of puberty, is characterized by not only psychological changes, but important physiological and social change. According to WHO\UNICEF in 1995 adolescence may be divided into three developmental stages based on physical, psychological and social changes.

Objective: The comparative study on nutritional knowledge and food habits of adolescents in government and private pre-university college of Belagavi city. **Methodology:** The present study undertaken to study “Food Habits and Nutritional knowledge Students in Government and Private Pre-University Colleges”. The detail research methodology adopted for the study including the methods, tools and techniques, study area and procedures followed in the selections of samples, collection of data of data analysis has been described in this chapter. The study participants were randomly selected and allocated into two groups with 200 students in

each group. **Results:** Among 400 students of government and private college nutritional knowledge respectively 69.13 ± 19.119 and 81.1667 ± 19.54 . And then association between socio demographic profile and nutritional knowledge was significantly proved in private college students only at the level of significant (p value less than 0.05).

Conclusion: The study concluded that there is a more nutritional knowledge in private school adolescents than government's adolescents.

Keywords: Adolescents, nutritional knowledge, Food habits, food frequency, psychological

INTRODUCTION

“Adolescents as defined by WHO (1986) includes persons aged 10-19 years. The period of gradual transition from childhood to adulthood that normally begins with the onset of signs of puberty, is characterized not only by psychological changes, instead includes physiological and social change as well”. According to WHO\UNICEF in 1995 adolescence may be divided into three developmental stages based on physical, psychological and social changes:

- Early adolescence, 10\13 – 14\15 years;
- Mid adolescence, 14\15 – 17;
- Late adolescence, between 17-18,

Nutritional needs are increased during the adolescence due to increased growth rate like changes in body composition associated to puberty. The dramatic increase in energy and nutrient requirements coincides with other factors that may affect adolescent's food choices and nutrient intake such as independence and acceptance by peers, increased mobility, greater time spent at school or work activities and preoccupation

with self- image, contribute to unhealthy eating behaviors that are common during adolescence. Sound nutrition can play a role in the prevention of several chronic diseases, including obesity, stroke [1, 2]. The comparative study on nutritional knowledge of food habits and eating behavior of adolescents Adolescent age is very important as the knowledge during adolescent about eating behavior and food habits will help for planning educational nutrition program in promoting of good health in later life. It has been observed that adolescent, have increase prevalence of non-communicable diseases and also other nutritional problems. Though they are aware about food but are unaware about their nutrient value and its importance.

Girls are mainly concerned by appearance and body size where as boys are mainly concerned with fitness and well being [3]. O. Brown *et al.* stated, “overweight college students are more likely to become overweight adults and are at a higher risk for diet-related chronic diseases such as

cardiovascular disease, type 2 diabetes, some cancers, and hypertension” [4].

MATERIALS AND METHODS

Study Design: Comparative Cross-Sectional Study

Source of Data: Urban adolescents aged between 16-18 years of government and private pre-university college of Belagavi city.

Study Period: August 2018 to February 2020

Data Collection Period: 1st march 2019-31 December 2019

Study Population: Both male and female urban adolescents aged between 16-18 years of government and private pre-university college of Belagavi city.

Sample Size: Assuming knowledge score of adolescents is 50%

$$n = \frac{Z^2 \times p \times (100-p)}{d^2}$$

Where n= number of subjects required,

Z= 1.9

p= 50%

d= 5% (possible error)

Hence, sample size = $\frac{4 \times 50 \times 50}{(5)^2} = 400$

Sampling Technique: Proportionate sampling technique is used for the participants recruitment.

Ethical clearance: gave clearance.

Inclusion Criteria: Both male and female urban adolescents aged between 16-18 years

of government and private pre-university college of Belagavi city.

Students who gave assent and consent were included.

Exclusion Criteria: Students absent during data collection.

Data Collection Tool: Self administered questionnaire was used for data collection which was Pre design, and pre-tested.

The structured questionnaire had question related to general information, anthropometric data, food habits, food frequency and nutritional knowledge.

Data Collection Procedure: Information on socio demographic, eating habits, knowledge regarding nutrition and eating behavior was collected.

Pilot Study: Pilot study was conducted on 20% of the sample size in a similar Govt and private school.

Data Analysis: Data was entered in SPSS software and analyzed.

RESULTS

Table 1, Explains that in government college Maximum students 97.5% were ≤18 years old, in Private college 100% students and in Government College 2.5% students were in 19-20 years of age. Male students were 55% and female students were 51%. In private college, male students were 41% and female students were 59%. In Government College 38.5% students were from nuclear family and 61.5% from joint family. And in Private College, 70.5% students were from

nuclear family and 29.5% from joint family. Out of 400 participants father's education in government college 5% were higher secondary and above, 25.0% were illiterate, 52.5% had primary knowledge education and 17.5% were educated up secondary level. And in private college 59.0% were higher secondary and above, 2.5% were illiterate, 15.5% were primary education level and 22.5% were secondary education level. Distribution of study participants according to their mother's literacy status. Out of 200 participants in Government

College 5.0% had higher secondary level education, 40.5% were illiterate, 47.5% were primary and 11.5% were secondary. Similarly in Private College 40.5% were higher secondary level education, 13(6.5%) were illiterate, 23.5% were primary and 29.5% were secondary level education. Out of 200 participants in Government college 77% were staying with parent and 23.0% were stayed in hostel(alone). Similarly in private college 171 stay with parents and 29 alone.

Table 1: Socio-demographic profile of adolescent student in government and private college

Socio-demographic profile	Government college	Private College
	Frequency (%)	Frequency (%)
≤18	195(97.5)	200(100)
19 to 20	5(2.5)	00
Female	90(45.0)	118(59)
Male	110(55.0)	82(41)
Joint family	123(61.5)	59(29.5)
Nuclear family	77(38.5)	141(70.5)
Literacy status of father		
Illiterate	50(25)	5(2.5)
Primary	105(52.5)	31(15.5)
Secondary	35(17.5)	45(22.5)
Higher secondary and above	10(5.0)	119(59.5)
Literacy status of mother		
Illiterate	81(40.5)	13(6.5)
Primary	95(47.5)	47(23.5)
Secondary	23(11.5)	59(29.5)
Higher secondary and above	1(0.5)	81(40.5)
Alone(Hostel)	46(23.0)	29(14.5)
Parents	154(77.0)	171(85.5)

Table 2: Food Habits

Food habits	Government college Frequency (Percent)	Private college Frequency (Percent)
Eggetarian	17(8.5)	22(11.0)
Non vegetarian	120(60.0)	113(56.5)
Vegetarian	63(31.5)	3(1.5)
Vegan	00(00)	62(31)
	Government college	Private college
Meals per day	Frequency (Percent)	Frequency (Percent)
Five times	1(.5)	34(17)
Four times	16(8.0)	24(12)
Three times	44(22.0)	34(17)
Two times	139(69.5)	108(54)

Do you skip meals		Government college	Private college
		Frequency (Percent)	Frequency (Percent)
No		80(40)	110(55)
Yes		120(60)	90(45)
which meal will be skipped			
		Frequency (Percent)	Frequency (Percent)
Breakfast		75(37.5)	32(16.0)
Dinner		23(11.5)	24(12.0)
Lunch		22(11)	34(17.0)
SL No	Eating outside in a week	Government college Frequency (Percent)	Private college Frequency (Percent)
1	1-2 times	131(65.5)	116(58)
2	3-4 times	29(14.5)	32(16)
3	5-6 times	40(20.0)	52(26)
Frequency of junk foods consuming		Government college Frequency (Percent)	Private college Frequency (Percent)
Alternative days		23(11.5)	42(21)
Daily		36(18.0)	51(25.5)
Weekly once		141(70.5)	107(53.5)

In Government college maximum 120(60.0%) were non-vegetarian, 63(31.5%) were vegetarian and 17(8.5%) were eggetarian. And in Private college maximum 113(56.5%) were non-vegetarian, 62(31.5%) were vegetarian, 22(11%) were eggetarian and 3(1.5%) were vegan, but there were no vegans in government college. Out of 200 students from Government College only 1 student said that he/she meals five times/ day. 16 four times/day, 44 three times and 139 two times per day. Whereas in private college out of 200 students 108 have meals twice daily, 34 thrice times, 24 four times and 34 will have three time/day.120 said that they skip meals and among them.75 skip breakfast, 23 dinners and 22 lunch. Whereas in private college 90 people skip meal and among them 32 skip

breakfast, 24 dinner and 34 lunch. Out of 200 students 131 were eating outside for 1-2 times/week. Similarly 40 students ate outside for 5-6 times/week and 29 for 3-4 times/week. Whereas in private college 116 students were eating outside for 1-2 times/week. Similarly 52 students ate outside for 5-5 times/week and 32 for 3-4 times/week. Explains about junk food consumption by the participants in government college These junk foods were live bakery item, fried foods, cokes, pizza, ice-cream etc. maximum 141(70.5%) students had junk food, once in week, 36(18%) had daily and 23(11.5%) had alternative days. In Private college maximum 107(53.5%) had once in week, 51(25.5%) had daily and 42(21.0%) had junk food alternative days.

Table 3: Association between the Socio-demographic profiles with the Private College students Knowledge

		Average	Good	Poor	Chi-Square	p value
Gender	Female	44	29	17	.453	.797
	Male	52	40	18		
Typeoffamily	Joint family	56	41	26	2.949	.229
	Nuclear family	40	28	9		
Father education	Higher secondary and above	5	2	3	11.380	.077
	Illiterate	25	18	7		
	Primary	48	43	14		
	Secondary	18	6	11		
Mother education	Higher secondary and above	0	1	0	2.792	.834
	Illiterate	39	28	14		
	Primary	44	33	18		
	Secondary	13	7	3		
Livingwith	Alone	30	13	3	8.478	.014*
	Parents	66	56	32		

*Significant

There is no significant association found between socio demographic variables and nutritional knowledge among private college students, but there was significant In the present study the participant's age ranged between 16-18 years. A study conducted in Assam revealed that most of the students were in age group of 14-16 year [5]. Similar studies conducted in India showed that the participant's age was between the range of 14-19 years [6].

In the present study most of the participants were females 52% and males were 48%. Some studies conducted at Tamil Nadu [7], Belagavi [7], revealed that there were equal numbers of participants from the both genders. Whereas a study conducted in Assam revealed more number of males (68.8%) then females (39.3%) these findings are similar to our study findings.

In our study in Government College, majority (52.5%) of student's fathers had completed primary education and 25% were

association found with living status of students that is with parents and alone(hostel) and knowledge at $p=0.014$.

DISCUSSION

illiterate. Whereas in fathers of students in private colleges had completed graduation (59.5%) and 2.5% were illiterate. Similar to our study Tamil Nadu study revealed 93.3% of formal education. They did not classify according the educational levels considered in our study. Another study in Belagavi had similar findings as of our study [5].

Our study findings are similar to other studies [6]. In our study 40.5% of private college students' mothers had completed graduation and (29.9%) in government colleges. Students majority of mothers had completed primary (47.5%).

NUTRITIONAL KNOWLEDGE

In our study we have found association between nutritional knowledge and pattern of eating (eating together with parents) especially in private college

students. No studies have collected such type of information there was no association found between any of socio demographic profile.

There is significant association found between level of knowledge and colleges. Hence there is difference of knowledge between government and private college students ($p=0.000$)

CONCLUSION

There was significant difference found between knowledge and both college (Private and Government college) and there was statistical significance found between private college students and eating patterns with parents

REFERENCES

- [1] Turconi G, Guarcello M, Maccarini L, Cignoli F, Setti S, Bazzano R, Roggi C. Eating habits and behaviors, physical activity, nutritional and food safety knowledge and beliefs in an adolescent Italian population. *Journal of the American College of Nutrition*. 2008 Feb 1;27(1):31-43.
- [2] Pirouznia M. The association between nutrition knowledge and eating behavior in male and female adolescents in the US. *International journal of food sciences and nutrition*. 2001 Jan 1;52(2):127-32.
- [3] Sakamaki R, Toyama K, Amamoto R, Liu CJ, Shinfuku N. Nutritional knowledge, food habits and health attitude of Chinese university students—a cross sectional study—. *Nutrition journal*. 2005 Dec;4(1):4.
- [4] Shaaban SY, Nassar MF, Abd Elhamid DM, El-Batrawy SR, Lasheen RA. Nutritional knowledge and attitude of adolescent school girls living in Cairo. *Res J Med Med Sci*. 2009 Jan 1;4(2):421-7.
- [5] Choi ES, Shin NR, Jung EI, Park HR, Lee HM, Song KH. A study on nutrition knowledge and dietary behavior of elementary school children in Seoul. *Nutrition research and practice*. 2008 Dec 1;2(4):308-16.
- [6] Rao DR, Vijayapushpam T, Rao GS, Antony GM, Sarma KV. Dietary habits and effect of two different educational tools on nutrition knowledge of school going adolescent girls in Hyderabad, India. *European journal of clinical nutrition*. 2007 Sep;61(9):1081.
- [7] NC Ashok, HS Kavitha, Kulkarni Praveen. A comparative study of nutritional status between government and private primary school children of Mysore city. 2014 jul-sep.