

A Descriptive Study to Assess the Knowledge and Expressed Practices among Students Regarding Healthy Eating Habits in Selected Nursing College of Ambala, Haryana

Rimmi¹, Pavneet Kaur Chahal², Harsh Raman³

¹Nursing Tutor, Community Health Nursing, Yamuna Institute of Nursing, Gadholi, Yamuna Nagar,

²Clinical Instructor Yamuna Institute of Nursing, Gadholi, Yamuna Nagar, India.

³Nursing Tutor, Medical Surgical Nursing, Yamuna Institute of Nursing, Gadholi, Yamuna Nagar,

Corresponding Author: Rimmi

ABSTRACT

The objectives of the study were to assess the knowledge and expressed practices to find out relationship between knowledge score and expressed practice score and to determine the association of level of knowledge and level of expressed practices regarding healthy eating habits among students with selected demographic variables. The research design selected for study was descriptive research design. The study was conducted at M.M.C.O.N, M.M.I.N MMU, Mullana, Ambala, Haryana (N=150). The convenient sampling technique for the selection of nursing college and Purposive sampling techniques was used for selecting students of B.sc nursing 1st yr and Post basic nursing 1st yr of M.M.C.O.N and B.sc nursing 1st yr of M.M.I.N. Structured Knowledge questionnaires and expressed practices questionnaire were used to assess knowledge and practices regarding healthy eating habits among students. The result revealed that the mean score of expressed practices is higher (68.8%) than mean knowledge score (14.4). The correlation between the knowledge scores and expressed practices scores among students regarding healthy eating habits was positive. Further, the chi-square showed that level of knowledge was dependent on mother's occupation and level of practices was dependent on mother's education among students regarding healthy eating habits. The improvement in knowledge and practices about healthy lifestyle is essential by awareness program in schools to promote lifestyle of adolescents.

Key Words: Knowledge, expressed practices, students, healthy eating habits.

INTRODUCTION

A balanced diet is one that covers an individual's nutrient requirement and is culturally and financially feasible to access and maintain. The eating plan that is affordable and which allows the body to obtain all the substances it needs to function optimally. From a nutrition perspective, there are six main components of balanced diet: Fats, Protein, Minerals, Vitamins, carbohydrates and Water. It is important

that all six are consumed regularly. ^[1] The requirements for a healthy diet can be met from a variety of plant-based and animal based foods. A healthy diet support energy needs and provides for human nutrition without exposure to toxicity or excessive weight gain from consuming excessive amounts. ^[2]

Eating a balanced diet helps people to maintain proper weight, which includes reducing the risk for either obesity or under

nutrition. A well-balanced diet helps your body fight many disease and infections. When the body receives enough nutrients, the immune system functions well, which prevent infection, reduces the risk of chronic disease like cancer, high blood pressure, and other disease condition. [3]

The age of Adolescents between 10-19 years the age account for more than 1/5th of the world populations. In India, the adolescents in developing nations make up to 1/5th to 1/4th of the country's population (Adolescents in India:2000).The march 2011, adolescents accounted for 22.8% of the total population of India . In the India around 250 million adolescents the age group of 10-19 years. Over the next few years the number of adolescents is likely increase. [4]

The prevalence of obesity among adolescents aged 12 to 19 years has increased from 5.0% to 18.1%. Obesity is the result of a caloric imbalance (too few calories expended for the amount of calories consumed) and is mediated by genetic, behavioral, and environmental factors. It is associated with several risk factors for later heart disease and other chronic diseases including hyperlipidemia, hyperinsulinemia, hypertension, and early atherosclerosis. Obesity has become a global health problem, affecting more than 1.3 billion adults in both developed and developing countries. There is an acute scarcity of programs targeted at adolescents, lack of policies and programs for improving health and nutritional status of adolescents. Therefore one of the important roles of health care provider is to educate the adolescents regarding their nutrition. Hence investigators felt to the need assess the knowledge and expressed practice of adolescents regarding their nutrition. [5]

METHODOLOGY

The research design selected for study was Descriptive research design (Quantitative). Formal administrative approval was obtained from the ethical committee of MMIMSR, Mullana, Ambala

to conduct the final study. For the present study the sample size was 150 and they were informed about the purpose of the study. The following data collection tools were developed and used order to obtain data: Section 1: Description of Selected variables Section 2: Knowledge questionnaire to assess the knowledge regarding healthy eating habits among students. Section 3: and expressed practices Questionnaire to assess the practices healthy eating habits among students. The Paper and pencil technique was used to collect data to assess and compare the knowledge and expressed practice among students in the nursing college. To ensure the content validity, it was submitted to 7 experts. i.e. 3 were from medical surgical nursing, 2 were from the child health nursing and 2 from the community health nursing for checking its accuracy and relevancy. The reliability coefficient for structured knowledge questionnaire was calculated by using Kuder-Richardson-20 (KR20) formula and it was found to be 0.6. The acceptable range of (KR 20) is 0.6-1.0 and for structured expressed practices questionnaire was calculated by using test retest reliability. Thus the tool was found to be reliable. The data obtained in the study was analyzed by using both descriptive and inferential statistics i.e. Mean, median, percentage, frequency distribution, standard deviation and “Chi-square” test.

RESULT

The data in the Table 4.1 indicated that Majority of students (86%) belongs to age group of 16-20 years. Majority of students (81.3%) were female and Maximum students (57.3%) belong to Hindu religion. Family income of less than half (30.8%) students was greater than twenty thousand and more than half of students (57.3%) belong to joint family. Majority (64.7%) of students had family members one to five and more than half (56%) of students were vegetarian. The educational status of Maximum number (46.7%) student's mothers was primary and

secondary and fathers (51.3) were higher homemaker and fathers were in government secondary and graduate. The Majority of services (38.6%).

SECTION-I: Description of Demographic variables of students regarding healthy eating habits

TABLE 4.1: Frequency and Percentage Distribution of Demographic Variables of students regarding healthy eating habits N=150

S.No	VARIABLES	FREQUENCY(f)	PERCENTAGE (%)
1	Age		
1.1	16-20	129	86
1.2	21-24	21	14
2	Gender		
2.1	Male	28	18.7
2.2	Female	122	81.3
3	Religion		
3.1	Hindu	86	57.3
3.2	Sikh	43	28.7
3.3	Christian	9	6
3.4	Muslim	12	8
4	Total income		
4.1	<5000	8	5.3
4.2	5001-10000	44	29.3
4.3	10001-15000	20	13.3
4.4	15001-20000	32	2.3
4.5	>20000	46	30.8
5.	Family type		
5.1	Nuclear	54	36
5.2	Joint	86	57.3
5.3	Extended	10	6.7
6	No. of family members		
6.1	1-5	97	64.7
6.2	6-10	34	22.7
6.3	11-15	15	10
6.4	>16	4	2.6
7	Dietary habits		
7.1	Vegetarian	84	56
7.2	Non-vegetarian	43	28.7
7.3	Eggetarian	23	15.3
8	Mother's educational status		
8.1	Non-literate	10	6.6
8.2	Primary and secondary	70	46.7
8.3	Higher-secondary and graduate	63	42
8.4	Post-graduate or above	7	4.7
9	Father's educational status		
9.1	Non-literate	7	4.7
9.2	Primary and secondary	51	34
9.3	Higher-secondary and graduate	77	51.3
9.4	Post-graduate	15	10
10	Mother's occupation		
10.1	Home maker	103	68.7
10.2	Private service	18	12
10.3	Govt. Service	20	13.3
10.4	Business/self employee	9	6
11	Father's occupation		
11.1	Labourer	5	3.3
11.2	Private service	39	26
11.3	Government Service	58	38.7
11.4	Business/self employee	48	32

SECTION-II: Findings related to assessment of level of knowledge and expressed practices among

TABLE 4.2: Frequency and Percentage Distribution of level of Knowledge among Students regarding healthy eating habits N=150

LEVELS OF KNOWLEDGE	RANGE	Frequency (f)	Percentage (%)
Below average (<50%)	0-15	64	42.7
Average(50-65)	16-19	77	51.3
Good(66-75)	20-22	07	4.7
Very good (>75%)	23-30	02	1.3

Maximum score: 30

Minimum score: 0

The data presented in table 4.2 showed frequency and percentage distribution of level of knowledge among students regarding healthy eating habits. Data showed that majority of students 77 (51%) had average level of knowledge with range between 16-19, whereas 64 students (42.7%) had below average level of knowledge with range 0-15. The result findings further showed that only 2 students (1.3%) had very good level of knowledge (>75%) with range between 23-30, very few students 7 (4.7%) had good level of knowledge with range 20-22.

TABLE 4.3: Frequency and Percentage Distribution of level of Expressed Practice among Students regarding healthy eating habits
N=150

Levels of Practice	Range	Frequency(f)	Percentage (%)
Average (50-70%)	50-70	81	54%
Good (70-90%)	70-90	69	46%

Minimum score: 30

Maximum score: 60

The data presented in Table 4.3 revealed the frequency and percentage distribution of level of expressed practices among students regarding healthy eating habits. The result showed that Majority of students 81 (54%) were following average level of expressed practices with range of 50-70 and less than half of students 69 (46%) were following below average level of expressed practices in the range of 70-90.

TABLE: 4.4: Range, Mean, Standard Deviation, Median of knowledge and Expressed Practices among students regarding healthy eating habits.
N= 150

AREA	Range	Mean ± SD	Median
Knowledge	3-23	14.4±3.8	15.0
Expressed Practice	55-82	68.8±4.7	69

Knowledge (Max. Score=30, Mini. Score=0)

Expressed Practices (Max. Score=60, Mini. Score= 20)

The data presented in Table 4.4 revealed that the mean level of knowledge among students regarding healthy eating habits was found to be 14.4 with standard deviation of ± 3.8 . The median of level of knowledge found to be 15 with range between 3-23 whereas, the mean level of expressed practices among students regarding healthy eating habits was found to be 68.8 with standard deviation of ± 4.7 . The

median of level of expressed practices found to be 69 with range between 55-82.

SECTION-III: Findings related to between the assessment of relationship between level of Knowledge and Expressed Practices among students regarding Healthy Eating Habits.

TABLE: 4.5: Correlation between the knowledge scores and practices scores among students regarding healthy eating habits
N= 150

Variables	Mean	S.D	r value	df
Knowledge	14.4	3.8	0.105	148
Practice	68.8	4.7		

'r' (148) ≥ 0.197 at 0.05 level of significance

The results in Table 4.5 showed that the computed value of 'r' value between the knowledge scores and Practices scores among students regarding healthy eating habits was found to be 0.105 with df of 148. The calculated coefficient of correlation was greater than the tabulated value. Thus there is weak positive correlation i.e; 0.105 between the knowledge and practice scores among students regarding healthy habits.

SECTION-IV: Findings related to assessment of relationship between levels of knowledge among students regarding healthy eating habits with selected demographic variables.

The data presented in Table 4.6 shows the value of chi-square between level of knowledge of students with demographic variables: age, gender, religion, total family income, type of family, number of family members, dietary habits, mother's education status, father's education status, mother's occupation and father's occupation. The findings showed that there is no significant association between the level of knowledge of students age (2.34), gender (0.45), religion(8.10),total family income (8.10), type of family (7.44), number of family members (4.83) dietary habits (5.20) mother's educational status (10.39), father's educational status (6.18) and father occupation (16.71). The chi-square was calculated at 0.05 level of significant. The

result of the study showed that there was a significant association of level of knowledge of students with their mother's occupation (30.71). Hence, the null hypothesis H₀₂ was partially accepted.

TABLE 4.6: Chi square showing association of level of knowledge among students regarding healthy eating habits with selected demographic variable N: 150

S. No	VARIABLE	Level				Chi-square	df
		Below average	Average	Good	Very good		
1.	Age						
	1.1 16-20	29	80	20	0	2.34 ^{NS}	3
	1.2 20-24	7	13	1	0		
2.	Gender						
	2.1 Male	10	18	0	0	0.45 ^{NS}	3
	2.3 Female	22	100	0	0		
3.	Religion						
	3.1 Hindu	38	43	5	0	8.10 ^{NS}	12
	3.2 Sikh	18	23	1	1		
	3.3 Christian	5	3	1	0		
	3.4 Muslim	11	3	0	0		
4.	Total family income per month						
	4.1 <5000	5	2	1	0		
	4.2 5001-10000	18	21	3	1	9.61 ^{NS}	12
	4.3 10001-15000	9	8	3	0		
	4.4 15001-20000	11	18	2	0		
	4.5 >20000	19	24	3	0		
5.	Type of family						
	5.1 joint	28	28	4	0		
	5.2 Nuclear	10	42	2	1	7.44 ^{NS}	9
	5.3 Extended	5	3	2	0		
6.	No. of family members						
	6.1 1-5	41	44	11	1		
	6.2 6-10	15	18	1	0		
	6.3 11-15	8	7	0	0	4.83 ^{NS}	9
	6.4 >15	1	3	0	0		
7.	Dietary habits						
	7.1 vegetarian	37	40	7	0		
	7.2 non-vegetarian	1	26	3	1		
	7.3 egg vegetarian	9	12	2	0	5.20 ^{NS}	6
8.	Mother's education status						
	8.1 non-literate	4	5	1	0		
	8.2 primary and secondary	35	31	4	0		
	8.3 higher secondary and graduate	21	36	6	0	10.39 ^{NS}	15
	8.4 post graduate or above	3	2	2	0		
9.	Father education status						
	9.1 non-literate	2	4	1	0	6.18 ^{NS}	15
	9.2 primary and secondary	24	24	3	0		
	9.3 higher secondary and graduate	30	37	10	0		
	9.4 post graduate or above	7	8	0	0		
10.	Mother occupation						
	10.1 home maker	44	55	4	0		
	10.2 private services	10	2	0	0		
	10.3 govt. services	10	12	8	2	30.71*	12
	10.4 business or self employed	2	2	2	0		
11.	Father occupation						
	11.1 Labourer	2	3	0	0		
	11.2 Private service	15	10	3	0		
	11.3 Government service	21	31	1	1	16.71 ^{NS}	12
	11.4 Business	25	21	2	0		

df (3)=7.82, df (6)=12.59, df (9)=21.0, df (15)=24.59, df(12)=21.03 * = Significant
NS= Not significant (p≤0.05)

SECTION-V: Findings related to assessment of relationship between levels of expressed practices among students regarding healthy eating habits with selected demographic variables.

In order to determine the significant association between the level of Knowledge and Expressed Practices among students regarding Healthy Eating Habits with selected demographic variables chi-square was calculated.

TABLE 4.7: Chi square showing association of level of practice among students regarding healthy eating habits with selected demographic variable
N=150

S.No	VARIABLE	LEVEL		Chi-square	df
		Healthy Practices	Unhealthy Practices		
1.	Age				
	1.1 16-20	57	72	0.86 ^{NS}	1
	1.2 20-24	10	11		
2.	Gender				
	2.1 male	18	10	2.52 ^{NS}	1
	2.2 female	70	52		
3.	Religion				
	3.1 Hindu	35	51	7.44 ^{NS}	4
	3.2 Sikh	21	22		
	3.3 Christian	6	3		
	3.4 Muslim	8	4		
4.	Total family income per month				
	4.1 <5000	5	3	2.69 ^{NS}	4
	4.2 5001-10000	20	24		
	4.3 10001-15000	5	15		
	4.4 15001-20000	12	20		
	4.5 >20000	26	20		
5.	Type of family				
	5.1 Joint	50	36	1.80 ^{NS}	3
	5.2 Nuclear	36	18		
	5.3 Extended	5	5		
6.	Size of family				
	6.1 1-5	49	56	3.11 ^{NS}	3
	6.2 6-10	11	23		
	6.3 11-15	7	8		
	6.4 >16	3	1		
7.	Dietary habit				
	7.1 Vegetarian	40	44	1.73 ^{NS}	2
	7.2 Non-vegetarian	17	26		
	7.3 eggetarian	11	12		
8.	Mother's education				
	8.1 Non-literate	2	8		
	8.2 Primary and secondary	34	36		
	8.3 Higher-secondary and graduate	28	35	11.52*	5
	8.4 Post graduate	1	6		
9.	Father's education				
	9.1 Non-literate	3	4		
	9.2 Primary and secondary	21	30	0.33 ^{NS}	5
	9.3 Higher-secondary and graduate	31	46		
	9.4 Post graduate	6	9		
10.	Mother's occupation				
	10.1 .Home maker	41	62		
	10.2 Private	9	9	3.98 ^{NS}	4
	10.3 Government services	14	6		
	10.4 Business	5	4		
11.	Father's occupation				
	11.1 Labourer	1	4		
	11.2 Private	10	29		
	11.3 Government services	29	29	4.00 ^{NS}	4
	11.4 Business /self employed	20	28		

df (1)=3.84, df (2)=5.99, df (3)=7.82, df(4)=9.49, df (5)=11.07

*=Significant (p<0.05)

NS= not significant (p<0.05)

The data presented in Table 4.7 showed that the chi-square value between level of expressed practices of students with selected demographic variables: age gender,

religion, total family income, type of family, number of family members, dietary habits, mother's education status, father's education status, mother's occupation, and

father's occupation. The results showed that there is no significant association between the level of expressed practices of students age (0.86), gender (2.52), religion (7.44), and total family income (2.69), type of family (1.80), number of family members (3.11), dietary habits (1.73), father's education (0.33), mother occupation (3.98) and father occupation (4.00). The chi-square was calculated at 0.05 level of significance. The result of the study showed that there was significant association of level of expressed practices of students and mother's education (11.52). Hence, the null hypothesis H_02 was partially accepted.

DISCUSSION

The present study showed that the computed value of 'r' value between the knowledge scores and Practices scores among students regarding healthy eating habits was found to be 0.105 with df of 148. The calculated coefficient of correlation was greater than the tabulated value. Thus there is weak positive correlation i.e.; 0.105 between the knowledge and practice scores among students regarding healthy habits. These findings are consistent with the findings of study which revealed that the higher knowledge levels do not always lead to practices especially when individuals do not know how to apply acquired knowledge. The correlation between knowledge and number of meals consumed by students is not strong and significant in this study. The result of the study showed that there was significant association of level of expressed practices of students and mother's education (11.52). These findings are also consistent with the findings of study which revealed that the level of education can influence dietary practices.^[6]

Majority (81.3%) of students were female. These findings are consistent with the findings of Eman Mokbel Alissa et al which revealed that a total of 200 students participated of which females were higher (68%) compared to males (32%).^[7]

Maximum (51.3%) students had average level of knowledge. These findings

were consistent with the findings of Mohammad Azizi et al which revealed that the average knowledge of female students regarding nutritional issues is 53%.^[8]

Analyze of this study indicated that 50% of the students had their breakfast daily. These findings were consistent with the findings of P.V. Kotecha, Sangita V. Patel et al. which revealed that 60% of the adolescents had their breakfast daily whereas 13% had breakfast only 3-4 days a week and 16 % had their breakfast only once or twice a week and 12% of adolescents never had breakfast.^[9]

CONCLUSION

This Study concludes that the large number of adolescents had a healthful diet and consumed chocolate, soft drink, one third consume other fast food as well or missed a meal once or twice in a week. Most boys and girls were aware of healthful and unhealthy foods

The clinical significance of this study is many nutritional problems exist among students due to unhealthy eating habits, low socio economic, and non availability of healthy foods in school setting. Setting up a nutrition education department in health care settings that is totally dedicated to nutrition education can prove to be useful in teaching the students as well as the public about healthy eating habits. Session on healthy eating habits can also be conducted in outpatient setting by nurses.

Teachers can be trained to impart nutrition education to the students. These training programs should be conducted at the district or state level and be made mandatory for every teacher to attend at regular intervals. This will facilitate in keeping the teacher updated on the latest trends and practice to be promoted for health of adolescents.

Quiz programs based on choices of healthy foods, snacks and consequences of unhealthy foods can be conducted on regular basis in the school setting to create

awareness among students regarding importance of healthy eating.

ACKNOWLEDGEMENT

This is to acknowledge that the above said authors had carried out the research work titled a study to assess the knowledge and expressed practices among students regarding healthy eating habits. Hence we acknowledge that the above research was original work of authors.

REFERENCES

1. Dietary Guidelines Advisory Committee." Scientific Report of the 2015 Dietary Guidelines Advisory committee." Washington: USDA and US Department of Health and Human Services (2015). www.health.gov/committee/2015-scientific-report/dietary-guidelines/2015.
2. Aguilera, Jose Miguel and David w. Stanley. Microstructural Principles of Food processing and Engineering. www.researchgate.net/publication/1999.
3. Carpenter, Kenneth J. Protein and Energy: a study to changing ideas in Nutrition of human biology Cambridge University Press. Volume (8) 5, 1558-1561. available at www.ncbi.nlm.nih.gov/pubmed.
4. Barzegari, A., Ebrahimi, M., Azizi, M. and Banjbar, K. (2011). *World Applied Sciences Journal* A study of Nutrition Knowledge, attitude and food habits of college students. *Volume 21,356-361*.
5. Bogart LJ, Briggs GM and Calloway DH. Nutrition and physical fitness. 8thed. Philadelphia: WB Saunders company 1966 p. 614.
6. Shepherd, R. Modelling Food choice. Conference Proceedings of the Nutrition Society, 58:807-812. <http://journals.cambridge.org>. Accessed on 15-05-2012.
7. Eman Mokbel Alissa, Hend Alsawadi, Asma Zedan. Knowledge, Attitude and Practice of Dietary and Lifestyle Habits among medical students in king Abdulaziz University, Saudi Arabia. *International Journal of Nutrition and Food sciences*. Vol.4,No.6,2015,pp.650-655.doi:10.11648/j.ijnfs.20150406.18
8. Mohammad Azizi, Neda Aghae, Mohsen Ebrahimi. Nutrition Knowledge, The Attitude and Practices of College Students. Original empirical article. Vol 9, N^o3, 2011, PP 349-357. UDC 351.778.2:796.071
9. Kotecha PV, Patel S, Mazumdar V. Self perception of Weight and Height among adolescents in urban Vadodara, India. *International Journal of Medical Sciences and public Health*. 2013;2(3):745-748.

How to cite this article: Rimmi, Chahal PK, Raman H. A descriptive study to assess the knowledge and expressed practices among students regarding healthy eating habits in selected nursing college of Ambala, Haryana. *Int J Health Sci Res*. 2018; 8(4):110-117.
