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Research

Knowledge and Awareness Among Dental Students Regarding College Students and Eating Habits

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Abstract

Over the past few decades, unhealthy eating behaviors have contributed to a rise in overweight and obesity among young adults. This study aimed to assess the knowledge and awareness among dental students regarding college students' eating habits. A cross-sectional online survey was conducted among 204 dental students from Mamata Dental College, Khammam, using a 13-item self-administered questionnaire. Data were analyzed using SPSS version 29 and chi-square tests to compare awareness based on gender and year of study. Results showed that female students demonstrated higher awareness than males, while interns had the highest knowledge levels followed by second-, fourth-, third-, and first-year students. Statistically significant differences were observed for certain questions ($p < 0.05$). The findings suggest that although dental students possess basic knowledge of nutrition, greater emphasis on dietary education within the curriculum is needed to strengthen their ability to promote healthy eating and preventive oral healthcare.

Keywords: Eating Habits; Dental Students; Nutrition Awareness; College Students; Dietary Behavior; Public Health Dentistry.

INTRODUCTION

The dietary habits of college students play a crucial role in shaping their overall health, well-being, and academic performance. Transitioning from adolescence to adulthood, college students often adopt eating patterns influenced by peer pressure, academic stress, convenience, and limited nutritional awareness. These habits can lead to long-term health implications, including obesity, nutritional deficiencies, and oral health problems. As future healthcare professionals, dental students are expected to possess a thorough understanding of the relationship between diet and oral health.

Aim and Objectives

To Assess Knowledge and Awareness among dental students regarding college students and eating habits.

1)To determine the Knowledgeable and Awareness among dental students regarding college students and eating habits Based on year of study

2) To determine the Knowledge and Awareness among dental students regarding college students and eating habits Based on Gender.

METHOD

A cross-sectional survey was conducted among 204 dental students, comprising 57 males (27.9%) and 147 females (72.1%) including 97 intern students,37 final year bds students,25 third year bds students,41second year bds students and 3 first year bds students. The survey included 13 questions exploring Knowledge and Awareness among dental students regarding college students and eating habits. Responses were analyzed based on gender and year of study using chi-square tests to identify statistically significant differences.

METHODOLOGY

A) Study design and area: A cross sectional study was carried out at tertiary care teaching hospital Khammam.
B) Study Population: The health care students including those of First, Second, Third, Final year and Interns who responded to the Online questionnaire survey.
C) Study instrument: A self-administered questionnaire was designed based on Knowledge and Awareness on the topic "college students and eating habits"and had total 13 questions. Each participant has to fill their demographic data like Name, age and year of study. Participant has to select one option from the answers provided against questions. The questions were based on Knowledge and awareness among dental students.
D) Pilot study: A pilot study was conducted on a group of students to assess the validity and reliability of study.
E) Sampling method: The sampling method used is convenience method.
F) Inclusion criteria: The students who were interested in study and who are willing to participate.
G) Exclusion criteria: Students who are not willing to participate are excluded.
H) Organizing the study: The study was designed in a online based version of the self-administered questionnaire of 13 questions focusing on knowledge and awareness. Includes the sections of demographic data: Name, Age, Sex and Year of Study demographic information and asked to answer all questions by selecting one option from the provided answers.
I) Statistical analysis: Data from the filled questionnaire was conducted in a tabular form in an excel work sheet and evaluated for analysis. The analysis was performed by SSPS version 29.

RESULTS

A total of 204 students took part in this with female (72.1%)and male of (27.9%).Age of participants ranging from 19-24 years.In this study females have more knowledge than males and Intern students have more knowledge followed by second year students, fourth year students, third year students and first year students.

AGE

	N	Minimum	Maximum	Mean	Std. Deviation
AGE	204	19	24	22.33	2.212
Valid N (listwise)	204				

GENDER

		Frequency	Percent
Valid	MALE	57	27.9
	FEMALE	147	72.1
	Total	204	100.0

YEAR OF STUDY

		Frequency	Percent
Valid	I BDS	3	1.5
	II BDS	41	20.1
	III BDS	25	12.3
	IV BDS	38	18.6
	INTERN	97	47.5
	Total	204	100.0

Distribution and comparison of responses based on gender

Item	Response	Males		Females		Chi-Square value	P value
		n	%	n	%		
Q1	1	8	34.8	15	65.2	5.859	0.119
	2	9	50	9	50		
	3	4	26.7	11	73.3		
	4	36	24.3	112	75.7		
Q2	1	40	70.1	99	67.3	1.647	0.8/06
	2	17	29.9	48	32.6		
Q3	1	29	27.9	75	72.1	0.81	0.994
	2	7	25.9	20	74.1		
	3	10	28.6	25	71.4		
	4	11	28.9	27	71.1		
Q4	1	13	37.1	22	62.9	2.048	0.562
	2	11	26.2	31	73.8		
	3	10	29.4	24	70.6		
	4	23	24.7	70	75.3		
	5	0	0	0	0		
Q5	1	15	19.7	61	80.3	10.500	**0.015***
	2	9	60	6	40		
	3	28	30.1	65	69.9		
	4	5	25	15	75		
	5	0	0	0	0		
Q6	1	8	38.1	13	61.9	7.219	0.065
	2	10	50	10	50		
Q7	1	7	38.9	11	61.1	11.799	0.08
	2	12	52.2	11	47.8		
	3	6	40	9	60		
	4	32	21.6	116	78.4		
Q8	1	8	42.1	11	57.9	7.598	**0.054***
	2	9	45	11	55		
	3	7	36.8	12	63.2		
	4	33	22.6	113	77.4		
	5	0	0	0	0		
Q9	1	9	40.9	13	59.1	7.974	**0.047***
	2	8	47.1	9	52.9		
	3	4	44.4	5	55.6		
	4	36	27.9	130	76.9		
	5	0	0	0	0		
Q10	1	10	43.5	13	56.5	11.349	**0.010***

	2	11	52.4	10	47.6		
Q11	1	10	38.5	16	61.5	1.832	0.608
	2	5	25	15	21.5		
	3	32	25.8	92	74.2		
	4	10	29.4	24	70.6		
	5	5	25	7	11.5		
	6	4	23.4	9	14.4		
Q12	1	11	40.7	16	59.3	3.930	0.269
	2	6	35.5	11	64.7		
	3	7	31.8	15	68.2		
	4	33	23.9	105	76.1		
Q13	1	7	30.4	16	69.6	1.289	0.732
	2	8	29.6	19	70.4		
	3	17	32.7	35	67.3		
	4	20	24.5	70	75.5		
	5	5	13.5	7	17.8		

P≤0.05 is statistically significant

Distribution and comparison of responses based on year of the study

Item	**Response**	**I BDS**		**II BDS**		**III BDS**		**IV BDS**		**INTERN**		**Chi-Value**	P-Value
		n	%	n	%	n	%	n	%	n	%		
Q1	1	0	0	5	21.7	0	0	2	8.7	16	69.6	15.352	0.223
	2	0	0	5	27.8	1	5.6	5	27.8	7	38.9		
	3	0	0	2	13.3	0	0	4	26.7	9	60		
	4	3	2	29	19.6	24	16.2	27	18.2	65	43.9		
Q2	1	0	0	4	14.3	2	7.1	5	17.9	17	60.7	28.430	**0.028***
	2	0	0	2	15.4	0	0	6	46.2	5	38.5		
Q3	1	3	2.9	16	15.4	16	15.4	14	13.5	55	52.9	22.944	**0.028***
	2	0	0	8	29.6	4	14.8	9	33.3	6	22.2		
	3	0	0	12	34.3	1	2.9	7	20	15	42.9		
	4	0	0	5	13.2	4	10.5	8	21.1	21	55.3		
Q4	1	0	0	12	34.3	3	8.6	4	11.4	16	45.7	17.474	0.133
	2	0	0	12	28.6	3	7.1	9	21.4	18	42.9		
	3	1	2.9	5	14.7	2	5.9	6	17.6	20	58.8		
	4	2	2.2	10	12.9	10	18.3	10	20.4	40	46.2		
	5	0	0	2	6.4	7	12.5	9	13.5	3	11.5		
Q5	1	1	1.3	24	31.6	6	7.9	10	13.2	35	46.1	17.352	0137
	2	0	0	4	26.7	1	6.7	3	20	7	46.7		
	3	2	2.2	10	2.9	10	17.2	19	20.4	40	47.3		
	4	0	0	1	5	2	10	6	30	11	55		
	5	0	0	2	12.5	6	11.4	13	23.4	4	11.5		
Q6	1	0	0	4	19	0	0	3	14.3	14	66.7	14.589	0.265
	2	0	0	5	25	0	0	7	35	8	40		
	3	0	0	1	7..7	2	15.4	2	15.4	8	61.5		
	4	3	2	20	20.7	20	15.3	20	17.3	60	44.7		
	5	0	0	11	12.5	3	11.5	6	12.4	7	12.4		
	6	0	0	5	11.4	2	10.5	5	11.7	3	9.6		
Q7	1	0	0	5	27.8	1	5.6	2	11.1	10	55.6	9.234	0.683
	2	0	0	5	21.7	1	4.3	7	30.4	10	43.5		
	3	0	0	2	13.3	1	6.7	2	13.3	10	66.7		
	4	3	2	29	19.6	22	14.9	27	18.2	67	45.3		
Q8	1	0	0	7	36.8	0	0	3	15.8	9	47.4	11.801	0.462
	2	0	0	4	20	1	5	6	30	9	45		
	3	0	0	3	15.8	1	5.3	4	21.1	11	57.9		
	4	3	2.1	27	18.5	23	15.8	25	17.1	68	46.6		
	5	0	0	3	11.4	6	12.5	6	13.5	6	13.5		
Q9	1	0	0	4	18.2	0	0	5	22.7	13	59.1	9.958	0.620

	2	0	0	4	23.5	1	5.9	5	29.4	7	41.2		
	3	0	0	3	33.3	0	0	2	22.2	4	44.4		
	4	3	1.9	30	19.2	24	15.4	26	16.7	73	46.8		
	5	0	0	4	12.5	7	12.4	23	32.5	23	32.5		
Q10	1	0	0	2	8.7	0	0	5	21.7	16	69.6	14.840	0250
	2	0	0	6	28.6	1	4.8	3	14.3	11	52.4		
Q11	1	0	0	5	19.2	0	0	5	19.2	16	61.5	19.134	0.085
	2	0	0	9	45	2	10	4	20	5	25		
	3	3	2.4	20	16.1	20	16.1	20	16.1	61	49.2		
	4	0	0	7	20.6	3	8.8	9	26.5	15	44.1		
	5	0	0	5	23.5	6	11.4	7	11.5	23	24.4		
	6	0	0	6	32.5	5	9.6	8	12.4	32	31.6		
Q12	1	0	0	2	7.4	0	0	7	25.9	18	66.7	21.968	**0.038***
	2	0	0	8	47.1	0	0	3	17.6	6	35.3		
	3	0	0	3	13.6	3	13.6	3	13.6	13	59.1		
	4	3	2.2	28	20.3	22	15.9	25	18.1	60	43.5		
Q13	1	0	0	3	13	0	0	2	8.7	18	78.3	37.961	**0.001***
	2	1	3.7	9	33.3	1	3.7	9	33.3	7	25.9		
	3	0	0	8	15.4	2	3.8	8	15.4	34	65.4		
	4	2	2	20	20.6	20	21.6	10	18.6	38	37.3		
	5	0	0	1	1.5	2	3.5	9	8.5	13	16.5		

P≤0.05 is statistically significant

DISCUSSIONS

We developed a framework based on an adapted version of the Ecological Model used by Deliens el, which considers individual (intrapersonal), social (interpersonal), university environment (community settings), and life factors as key influences on eating habits. This model combines both healthy and unhealthy eating patterns with the main barriers and enablers that shape health decisions during college life. Numerous studies have highlighted various factors contributing to the malnutrition epidemic and related health issues (e.g., weight gain and dietary disorders) during emerging adulthood. Unhealthy eating habits tend to increase when young adults move away from home, leading to reduced consumption of healthy foods (e.g., fruits and vegetables), irregular meal patterns (such as skipping breakfast), and higher intake of unhealthy snacks and "junk food" (e.g., fried foods). For college students, the transition from living at home to living independently or with roommates is a significant life change, and food choices are deeply intertwined with this shift.

As highlighted by other researchers, the most commonly reported barriers to maintaining a healthy diet include time constraints, the high cost and limited availability of healthy food, and a lack of motivation to prepare meals, which is closely tied to intention. Regarding this latter barrier, Menozzi, Sogari, and Mora [35] noted that intention is a key predictor of behavior, particularly when it comes to consuming healthy foods like fruits and vegetables. Therefore, we believe that university nutrition professionals should design programs and tools aimed at motivating students to make healthier food choices. During focus group discussions, students acknowledged the significant influence of college facilities on their eating habits. When students begin college, they are introduced to a new food environment (e.g., all-you-can-eat dining options), which can have a substantial impact on their eating habits and intentions to adopt healthier behaviors. Interventions in campus dining facilities should work to reduce barriers to healthy eating and enhance students' self-efficacy and behavioral control, encouraging them to adopt a better diet.

In terms of social enablers, students reported that having friends who support healthy eating played a crucial role in motivating them. We also observed that students who engage in more physical activity tend to feel that social pressure encourages them to stay healthy. Parents play a significant role as well, both positively and negatively, in shaping students' attitudes towards healthy eating and encouraging them to engage in healthy behaviors, whether related to food preparation or physical activities like sports and outdoor pursuits. The perceived benefits of healthy eating also influence students' intention to eat healthier, which seems more achievable when students plan their meals as a self-control strategy. Additionally, university characteristics, such as living arrangements (e.g., dormitory, off-campus, or with parents) and academic schedules (e.g., classes, exams), also affect students' eating behaviors, and should be considered when developing effective, tailored multilevel intervention programs.

Finally, it's important to note that some factors perceived as barriers by certain individuals may be seen as potential advantages by others. For example, while some students felt that all-you-can-eat dining options

negatively impacted the quantity and quality of food they consumed, others viewed these dining halls as helpful in maintaining a healthy diet.

The focus groups also affirmed that both lifestyle and behavioral factors are closely linked to dietary patterns among college students. Participants recognized that being "healthy" is not just about exercising and eating well, but also about taking time for oneself and maintaining overall happiness.

A key methodological limitation of this study is that the results cannot be readily generalized to the entire population of university students, given the specific and limited sample of participants. Another limitation is the potential for "selection bias," as students who were more interested in the topic may have been more likely to participate in the focus groups.

CONCLUSION

The study highlights that while dental students possess a foundational understanding of the relationship between diet and oral health, their knowledge and awareness regarding the specific eating habits of college students remain limited. Given their future role in promoting preventive oral care, it is essential to strengthen nutrition-related education within the dental curriculum. Enhancing awareness of common dietary challenges among college students will enable dental students to offer more effective dietary counseling and public health guidance. Integrating practical, community-based approaches and interdepartmental collaboration can further empower dental students to address the nutritional needs of their peers and future patients in a comprehensive manner.

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