



A study eating and dietary habits among sample of paramedical students in Collage of Health and Medical Technologies /Baghdad

Ayyed Mohammed Namoos, MSc

College of Health and Medical Technology /Baghdad

G-mail: drnihadkhalawe@gmail.com

Abstract

Background Healthy eating is one of the ways of disease prevention around the world . This study was designed to help researchers understand the eating and dietary habits of students in college of Health and Medical Technologies/ Baghdad.

The objective

To assess the eating and dietary habits and their associated factors in paramedical students.

Methods

Cross sectional study included (201) of paramedical students from (7) departments in college .The study was contacted the period from September 2016 to March 2017, and involved (77) were male and (124) were female. A self –reported questionnaire was employed to assess eating and dietary habits among the simple random selection of students.

Results

This study used percentage, Chi-square , Df and P-value to analysis data , results showed that the eating habits for female students which Anesthesia of department higher percentage (23.39%) than male students (23.38%) which medical laboratory of department and their higher percentage (19.90%) among departments while optical of department have low percentage (8.96%). Study also found that there is significant difference between (7) departments ($p.v = 0.004$) that influence in gender towards eating habits . In addition , this study showed that highly significant for smokers ($p.v=0.0001$) , education level of mothers were significantly low ($p.v=0.050$) , eating food groups have no significant difference among students.

Conclusion

Most of the paramedical students in this study had healthy eating lifestyle. Association factors were imperative limits of eating lifestyle among students .

► **Keywords** Eating , dietary habits , paramedical students , collages.

Introduction

Hygienic eating is one of the methods of illness prohibition particularly relevant to chronic illness . like this ischemic heart illness, cerebrovascular illness, type 11 diabetes and assigner kinds of cancer. The (WHO) has relied this universal strategically on diet , physical vitalities and hygienic by bettering the two main variables which are diet and physical vitalities. Dietary probates from this strategically is to accomplish stamina homeostasis and hygienic body weight , specific stamina quantity from entirety fat, chance fat consuming from saturated fat to un saturated fat , remove cross –fatty acids , excess consuming of fruits and vegetables , legumes, each grains and nuts, specific the quantity of freelance sugar , specific salts (sodium) consuming from all resources and surest that salt is iodized . There were some researches emphases on university students as the goal groups . As university students , they were forecasted to have ampler or nice knowledge concern hygienic eating as they are capable to profit knowledge form severally resources like this from university writers , internet and etc. ^[1] In last years ; yet days supply nutrition's are quickly substituting organic nutrition . Other shift is the speedy excess in the number of restaurants and in the peoples flair to eat snack. Some

URL: <http://www.uokufa.edu.iq/journals/index.php/ajb/index>

<http://iasj.net/iasj?func=issues&jid=129&uiLanguage=en>

Email: biomgzn.sci@uokufa.edu.iq



studies have exhibit that not saving ampler food savvy advance to result like this hygienic difficulty, overweight and fatness. ^[2] Botches eating lifestyle is a main general hygienic thereon between guy who suffered transmigrating to the inside university lives, through which , they are exposure to strain and fewness of time. These elements constitute a excluder anti fostering of hygienic styles, like this botches eating lifestyle material hurts. Through these styles of students deemed impermanent , as portion of university lives; unhygienic lifestyle chose at this age commonly continue in elder lives. ^[3] The dietary lifestyle and food savvy are very consequential lives diction . dietary lifestyle include of scale nutrition quantity in daily meal which avert from off take snack and poor nutrition uptrend food savvy are consequential for much traits like this nutrition that involve of carbohydrates , proteins , vitamins and mineral. Foods namely to offer the energy sources to each the body though do which daily verve. ^[4] Orderly eating of snack can augments the danger of weight profit and fatness cause owing a increase energy intensity with the exist of increase level of lipid and sugar in the meal , and conversely decrease level of fiber and protein. ^[5] The encumber of non-communicable disease rising globally and poses a foremost community health belong to, a large gasp of which is avoidable . These diseases have been powerfully linked with harmful way of life habits ,as well as unsuitable nourishment , be short of work out , smoking , alcohol using up , caffeine do to excess and unacceptable sleeping lifestyle. unsuitable nourishment and idleness enlarge the danger of diabetes , osteoporosis , obesity and cardiovascular illness . harmful sleeping lifestyle and addictions throw in to danger of rising the over mentioned non-communicable illness. ^[6] University students be inclined to create their possess food choices based on price of food. They require information of fit food choices that my influence consumption lifestyle and dietary condition harmfully . preceding studies discovered that university students unsuccessful to convene the suggested intakes of fruit and vegetables. ^[7] The years intake at the university stand for a serious stage that is capable to effect both the value of way of life and eating lifestyle of the following maturity and ,also, on lengthy –period ,the health of the persons . specially , the university inhabitants is sectioned into two categories , those who go on to exist with their parents and those that are presence universities distant from their common dwelling that are compulsory to survive absent from home .For together, the start of the universities matches with further liberty and freedom and is frequently the first time that adolescent people suppose the liability to decide and get ready foods .It has lengthy been identified how much collage students have complex in next healthy nutritional lifestyle .To receive in importance this setting .singular awareness should be salaried to university students as a set mainly exposure to bad nutritional lifestyle. ^[8]

Methods

Across –sectional study was conducted among the paramedical students of collage technologies health and medical /Baghdad between the period September 2016 to March 2017 . The students were selected of last years (senior) from seven departments in college (Medical laboratory , Anesthesia , Prosthodontics ,Radiological, Physiotherapy , Optical , and Community Health) were chosen by simple random sampling method. The total sample size was (201) students, included(77) were male and (124) were female. The study was carried out using modified questionnaire . After the translation to Arabic from the standard questionnaire it was distributed among the participants to get the required in order. The questionnaire consisted of the first part: consisted of personal information about the students and their anthropometric measurements. The second part: posted questionnaire about eating habits. Standing height was measured using a stadiometre and the reading was noted up to the nearest cm. Weight was measured by using the scale (DETECTO USA) BMI was calculated using Index (wt./ht²).

Statistical analysis

URL: <http://www.uokufa.edu.iq/journals/index.php/ajb/index>

<http://iasj.net/iasj?func=issues&jid=129&uiLanguage=en>

Email: biomgzn.sci@uokufa.edu.iq



Statistical analysis were performed using the statistical package for social sciences (SPSS) software.

Table (1): Distribution of students and eating habits according to gender and department.

Results :

Departments	Gender					
	male		female		Total	
	N0.	%	N0.	%	N0.	%
Medical laboratory	18.00	23.38	22.00	17.74	40.00	19.90
Anesthesia	9.00	11.69	29.00	23.39	38.00	18.91
Prosthodontics	18.00	23.38	7.00	5.65	25.00	12.44
Radiological	9.00	11.69	17.00	13.71	26.00	12.94
Physiotherapy	6.00	7.79	14.00	11.29	20.00	9.95
Optical	4.00	5.19	14.00	11.29	18.00	8.96
community health	13.00	16.88	21.00	16.94	34.00	16.92
Total	77.00	100.00	124.00	100.00	201.00	100.00

Table (2): Distribution of students and eating habits according to education level of parents.

Education level of parents		Gender						
		male		female		Total		p.v
		No.	%	No.	%	No.	%	
Mothers	primary	18	23.38	12	9.68	30	14.93	0.050*
	secondary	8	10.39	18	14.52	26	12.94	
	preparatory	15	19.48	25	20.16	40	19.90	
	university	36	46.75	69	55.65	105	52.24	
Fathers	primary	27	35.06	28	22.58	55	27.36	0.201
	secondary	14	18.18	20	16.13	34	16.92	
	preparatory	14	18.18	29	23.39	43	21.39	
	university	22	28.57	47	37.90	69	34.33	

Chi-Square =18.910

Df=6

P.V=0.004*

Table (3): Distribution of students and eating habits according to smoking.

URL: <http://www.uokufa.edu.iq/journals/index.php/ajb/index>
<http://iasj.net/iasj?func=issues&jld=129&uiLanguage=en>
 Email: biomgzn.sci@uokufa.edu.iq



Smoking	Gender					
	male		female		Total	
	N0.	%	N0.	%	N0.	%
Yes	24.00	31.17	.00	.00	24.00	11.94
No	53.00	68.83	124.00	100.00	177.00	88.06
Total	77.00	100.00	124.00	100.00	201.00	100.00

Chi-Square = 43.

Df=1

P.V=0.0001*

Table (4): Distribution of students and eating habits according to food groups.

Food groups		Gender						
		male		female		Total		p.v
		No.	%	No.	%	No.	%	
Eating good breakfast	yes	24	31.17	44	35.48	68	33.83	0.606*
	no	20	25.97	25	20.16	45	22.39	
	sometimes	33	42.86	55	44.35	88	43.78	
Eating at hungry	yes	40	51.95	62	50.00	102	50.75	0.882
	no	11	14.29	21	16.94	32	15.92	
	sometimes	26	33.77	41	33.06	67	33.33	
Eating meat	yes	50	64.94	74	59.68	124	61.69	0.489
	no	8	10.39	10	8.06	18	8.96	
	sometimes	19	24.68	40	32.26	59	29.35	
Eating vegetables	yes	51	66.23	97	78.23	148	73.63	0.107
	no	4	5.19	7	5.65	11	5.47	
	sometimes	22	28.57	20	16.13	42	20.90	
Eating fruits	yes	48	62.34	91	73.39	139	69.15	0.252
	no	4	5.19	4	3.23	8	3.98	
	sometimes	25	32.47	29	23.39	54	26.87	
Eating dairy products	yes	41	53.25	72	58.06	113	56.22	0.583
	no	11	14.29	12	9.68	23	11.44	
	sometimes	25	32.47	40	32.26	65	32.34	
Eating sweets	yes	42	54.55	70	56.45	112	55.72	0.862
	no	10	12.99	13	10.48	23	11.44	
	sometimes	25	32.47	41	33.06	66	32.84	
Total		77	100.00	124	100.00	201	100.00	

Table (5): Distribution of students and eating habits according to main meal.



Variables		Gender						
		male		female		Total		
		No.	%	No.	%	No.	%	P.v
Main Meal of the day	breakfast	23	29.87	31	25.00	54	26.87	0.776
	lunch	44	57.14	79	63.71	123	61.19	
	dinner	7	9.09	11	8.87	18	8.96	
	others	3	3.90	3	2.42	6	2.99	
Main meal consist of and prepared	home	65	84.42	105	84.68	170	84.58	0.795
	restaurant	6	7.79	11	8.87	17	8.46	
	TV.	6	7.79	7	5.65	13	6.47	
	others	0	.00	1	.81	1	.50	
Main meal Weekend of the day	home	60	77.92	106	85.48	166	82.59	0.504
	TV.	8	10.39	9	7.26	17	8.46	
	restaurant	1	1.30	2	1.61	3	1.49	
	others	8	10.39	7	5.65	15	7.46	
Avoiding some foods	yes	46	59.74	90	72.58	136	67.66	0.058
	no	31	40.26	34	27.42	65	32.34	

Table(6): Distribution of students and eating habits according to BMI.

BMI	Gender					
	male		female		Total	
	No	%	No	%	No	%
Under weight (<18.5)	10	12.99	12	9.68	22	10.95
Ideal weight (18.5-25)	49	63.64	86	69.35	135	67.16
Overweight (25-30)	12	15.58	20	16.13	32	15.92
Moderate obesity (30-35)	6	7.79	4	3.23	10	4.98
Obesity (35-40)	0	.00	2	1.61	2	1.00
Total	77	100.00	124	100.00	201	100.00

Chi-Square=3.948

Df=4

P.V=0.413

Table(7): Distribution of students and eating habits according to smoking and BMI.

URL: <http://www.uokufa.edu.iq/journals/index.php/ajb/index>
<http://iasj.net/iasj?func=issues&jid=129&uiLanguage=en>
 Email: biomgzn.sci@uokufa.edu.iq



BMI	Smoking					
	Yes		No		Total	
	No.	%	No.	%	No.	%
under weight(<18.5)	2	8.33	20	11.30	22	10.95
ideal weight (18.5-25)	13	54.17	122	68.93	135	67.16
overweight (25-30)	6	25.00	26	14.69	32	15.92
moderate obesity (30-35)	3	12.50	7	3.95	10	4.98
obesity (35-40)	0	.00	2	1.13	2	1.00
Total	24	100.00	177	100.00	201	100.00

Chi-Square=5.640**Df=4****P.V=0.228**

Table(8): Distribution of students and eating habits according to allergy.

Allergy from food groups	Gender					
	male		female		Total	
	No.	%	No.	%	No.	%
Yes	29	37.66	48	38.71	77	38.31
No	48	62.34	76	61.29	124	61.69
Total	77	100.00	124	100.00	201	100.00

Chi-square=0.02**Df=1****P.V=0.882**

Discussion

Of the (201) assessable questionnaires, (124) were from female pupils and (77) from male pupils. The students were selected of seven departments (medical laboratory (19.90%) , Anesthesia (18.91%), proshodontic (12.44%), Radiological (12.94%), Physiotherapy (9.95%), Optical (8.96%) and community health (16.92%). Table (1) the results show that there is significant gender different of the departments with eating habits. This study disagree with Jeong-Ok Rho et al (2013).^[9] In Malaysia, Mohd Rohanizat Hassan et al (2015) found that gender was associated with eating habits , significant effect of gender . In this study was similar to our study. Another study Nor et al revealed that the result shows the male and female among students has no significant deference of dietary habits .^[10] This results differ with our study. This study revealed that mother of education level have significant (p.v 0.050) also the smoking factor association with eating habits is a highly significant (p.v= 0.0001) . This findings similar to study in a Malaysian Kuru baran Ganasegeran et al (2012).^[11] Ordinary breakfast intake between paramedical students is imperative for enough energy eating to beat tiredness due to occupied (daily) learning program.^[12] In the study , the replies (33.83%) have breakfast daily this finding was upper in contrast to a prior study which exist that (31.8%) of study inhabitants had breakfast each day.^[13] Another study, Jeong-Ok Rho et al (2013) found that the females had poorer breakfast habits than the males.^[9] This results disagree with our study. Also researches studies found that higher proportions of daily breakfast intake between students in Selagor (75.6%) and in Pahang (52.6%).^[14,15] This study disagree with our study. The common of students in our study intake vegetables frequently (73.63%) and fruits (69.15%) . This findings was high in contrast to prior study from China (47.9%).^[16] Intake of fruits and vegetables acting a essential tasks in given that a nourishment diet and are linked with decreased danger for persistent illness and some cancers. little intake of fruits and



vegetables several districts of the growing global is a continual occurrence, inveterate by the results of nutrition intake investigations.^[17] About one –third of Sudanese adolescent intake fruit, and about 70% eat vegetables in daily basis.^[18] This result similar to our study. In South –western Saudi Arabia, study results that 27% of males and 23% of females not at all intake any new fruits for a week before the study.^[19] This findings disagree with the our study. While intake of meat , daily products and sweets (61.69%, 56.22%, 55.72%) respectively . This results differ with the Umar Ibrahim Umar Farouk Islmail et al (2014) .^[5] In Mansoura, Egypt Doaa Abdel-Hady et al (2014) found that intake of increases sweet was reported by 54% of students.^[20] This study agree with the our study. Most of the students in this study (61.19%) had main meal of the day for lunch , While main meal consist of and prepared and main meal weekend of the day (84.58%, 82.59%) respectively with at home. Al so present study (67.66%) had avoiding some foods . This results indicator the students had awareness , information on healthy diet and eating habits except in frequency of meals , meat and sweet intake. Marjan et al (2014), the study revealed that the males and females did not show any difference between had main meal and eating habits.^[21] This study similar to our study. Magda TALLANOVA et al (2010) found that the largest underweight percentage was (1.5%) , the greater percentage in the normal weight was (13.7%) , and the greater percentage in the overweight was(4.0) . The greater percentage in level . I obesity was (0.4%) , the greater percentage in level .II obesity was (0.2%).^[22] This findings differ with our study. Else study , Mohammad Azizi et al (2011) found that underweight was (22.2%) , normal weight was (55.4%) , overweight was (12.5%) , and obesity was (1.7%).^[23] This study similar to our study. Also Swami Ram Nagar et al (2015) discover that the males were more likely to be overweight while a great percentage of females were underweight and found that no significant difference in the diet and eating habits of students .^[24] This results differ with our study. The relationship between eating habits and BMI , smoking factors among students had non significant and also allergies from food groups in our study.

Conclusion

Most of the paramedical students in this study had healthy eating lifestyle. Association factors were imperative limits of eating lifestyle among students . This study ; it could be complemented that students should thrust more awareness to nutrition . Since collage students will from the main body of families and professionals in every region and every society and they will represent the future parents. Therefore, an improvement in the learning environment related to nutrition , need to be confirmed on collages.

Recommendation

Specific health education programs, eating habits guidelines, active public awareness, and campaigns could be initiated to treating the unhealthy lifestyle of the students. The future research should be expanded to involve a larger representative sample size of paramedic students through the inclusion of students from different paramedical colleges from all over Iraq.

Reference

- 1-Mohd Rohaizat Hassan , Hasanain Faisal Ghazi , Nur Syazana Umar , Norzalcha Masri , Sameeha Mohd Jamil , Zaleha Md. Isa and Nazarudin Safian .
- 2-Dr. Rafia Bano ;Dr Eyad Alshmmmeri; Syed Bushra Fatima; Norah Ayed Al-shammeri. A comparative study of knowledge Attitude , practice of nutrition and non nutrition student to wards a balanced diet in Hail university. IosR Journal oNursing and Health science; volume 2, Issue 3 (sept - occt 2013) , pp 29-36.



3-Kurubaran Ganasegeran, Sami AR Al-Dubai Ahmed M Quresh , Al-abed AA Al –abed, Rizal AM and Syed M Aljunid. Social and psychological factors affecting eating habits among university students in a Malaysian. Nutrition Journal 2012 11:48.

4-Nor Hasnida Binti Abdul Hailm and Mubarrak Yusof . Study of dietary Habits and nutritional Knowledge among Physical and Health Education students in Uitm Shah Alam . Journal of research for education studies (1) volume 2014.

5-Umar Ibrahim Umar Farouk Ismail and Maryam Mohammed. Nutrition Knowledge , Attitudes and Junk Food Consumption Habits among students of Abubakar Tatari Polytechnic (ATAP) Bauchi. International Journal of scientific and Engineering Research , volume 5 , Issue 12, December- 2014.

6-Rubina A. Sajwani, Sana Shoukat, Rushna Raza, Muhammad Muhyeuddin Shiekh, et al. Knowledge and practice of healthy lifestyle and dietary habits in medical and non medical students of Karachi , Pakistan . Journal of Pakistan Medical Association Vol 27, Supp SI, (2015).

7-Gan WY, Mohd NM, Zalilah MS, Hazizi AS: Differences in eating behaviours, dietary intake and body weight status between male and female Malaysian university students. Mal J Nutr. 2011, 17(2): 213-228. [Google Scholar](#).

8-Silvia Lupi, Francesco Bagordo , Armando Stefanati , Tiziana Grassi , Lucia Piccinni, Mauro Bergamini and Antonella De Donno. Assessment of lifestyle and eating habits among undergraduate students in northern Italy. Vol.51.No.2:154-161.

9-Jeong –Ok Rho, Jin – Suklee. Selected data on the dietary habits of Korean students in Jeonju/south Korea. August 22, (2013).

10-Mohd Rohaizat Hassan, Husanain Faisal Ghazi, Nur Syazana Umar, Nor Zaleha Masri, Sameeha Mohd Jamil Zaleha Md. Isa and Nazarudin Safian. Knowledge , Attitude and practice of Healthy Eating and Associated Factors among University Students in Selangor, Malaysia. Pakistan Journal of Nutrition 14 (12): 892-897, (2015).

11-Kurubaran Ganasegeran, Ahmed M Qureshi , Al –abed AA Al-abed , Rizal AM and Syed M Aljunid . Social and Psychological factors affecting eating habits among university students in a Malaysian Medical school: a cross –sectional study . Nutrition Journal (2012).

12- Tanaka M, Mizuno K ; Fukuda S, Shigihara Y, Watanabe Y: Relationships between dietary habits and prevalence of fatigue in medical students .Nutrition .2008, 24:985-989.

13-Yahia N , Achkar A, Abdalah A, Rizk S, : Eating habits and obesity among Lebanese University students. Nutr. J. 2008, 7 (32).

14- Anuar K, Ghazali M: The association of breakfast consumption habits, snacking behavior and body mass index among university students. AM. J. Food . Nutr. 2011,1 (2) :55-60.

15-Chin Ys, Mohd NM :Eating behaviors among female adolescents in Kuantan District, Pahang, Malaysia. Pak J Nutr. 2009, 8 (4): 425-432.

16-Samamaki R, Toyama K, Amamoto R, Liu CJ , Shinfuku N: Nutritional knowledge , food habits and health attitude of Chinese University students :a cross sectional study. Nutr. J. 2005, 4(4).

17-WHO. Diet, nutrition and the prevention of chronic diseases World Health Organ Tech Rep Ser 2003; 916 (i-viii): 1-149.



18-Moukhyer ME van EiJk JT, De Vries NK, Bosma H. Health –Related Behaviors of Sudanese Adolescents. *Education for Health* 2008; 121 (1).

19-Mahfouz AA, Shatoor AS, Khan MY, Daffalla AA, Mostafa OA, Hassanein MA. Nutrition, physical activity, and gender risks for adolescent obesity in Southwestern Saudi Arabia. *Saudi J Gastroenterol.* 2011; 17(5) :318-22.

20-Doaa Abdel-Hady , Abdel-Hady El-Gilany , Bernadit Sarraf. Dietary habits of adolescent students in Mansoura, Egypt. *International Journal of Collaborative Research on Internal Medicine & Public Health.* Vol. 6 No. 6 (2014).

21-Marjan Manouchehri Naeeni, Sakineh Jafari, Maryam Fouladgar, Kamal Heidari, Ziba Farajzadegan, Maryam Fakhri, Parvaneh Karami, and Razieh Omid. Nutritional Knowledge, Practice, and Dietary Habits among school Children and Adolescents. *International Journal of Preventive Medicine.* Vol. 2014 Dec; 5 (Suppl 2): S171- S178.

22-Magda TALLANOVA, Magda lena RERVCHOVA, Gabriela SIANINOVA. NUTRITIONAL STATUS AND DIETARY HABITS OF HIGH SCHOOL AND COLLEGE STUDENTS. *School and health* 21,2010, *Health Education : International Experiences.*

23-Mohammad Azizi, Neda Aghaee, Mohsen Ebrahimi and Kazem Ranjbar. NUTRITIONAL KNOWLEDGE, THE ATTITUDE AND PRACTICES OF COLLEGE STUDENTS. Vol. 9 N3, 2011 pp 349-357.

24-Swami Ram Nagar, Doiwala. A KAP STUDY AND SURVY OF EATINT HABITS AMONG MEDICAL FACULTY AT MEDICAL COLLEGE IN SOUTH INDIA. *INDIAN JOURNAL OF COMMUNITY HEALTH.* Vol. 27, Supp S1, (2015).