

# Nutritional awareness, dietary rule and fit lifeway of medical students in al Muthanna university

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## Abstract:

**Background:** We have before revealed that systematic regime of youthful Chinese female students is significantly associated with their wish to be slimmer. In the current revision, we observed the nutritional awareness, dietary rule and fit lifeway of medical students in al Muthanna university and matched them with persons of other peoples.

**Methods:** across sectional study, self-informed survey was directed to 285 students, varying in oldness from 18-25 years. Medical college students from al Muthanna University (93 males and 192 females) joined inside this revision. Variables were analyzed using Chi-square analyses.

**Results:** Our outcomes revealed that 73% of students had a usual BMI and 16 % of students were underweight and 2% of them were obese in current revision example. Youthful Iraqis feminine students had a more wish to be slimmer (73%) than males (66%). Lifestyles including systematic intake designs and vegetable eating were informed and characterize exercises that must be fortified.

**Conclusions:** The university and college grounds characterize the ultimate chance for the fitness and dietary learning of a huge number of students from the instructor's viewpoint. Our conclusions advise the requirement for plans aimed to increase fitness in the region of diet.

## INTRODUCTION:

Obesity is unusual and unnecessary fat deposition in adipose tissue to may be harmfully affected by the health [1].

Obesity is a problem has been increasing in numerous states especially in low-income states. Iraq has been accepted and approved free a rule of marketing and increase in economic development which led to change in the building of the diet of Iraqis [2,3,4]. The structure of the Iraqis diet has been included much meat, fats and carbohydrate more than fruits, vegetable and fibres [20,5]. Added to all above sedentary lifestyle has been increasing the numbers of obese and overweight people and these raise the food-related chronic diseases; dyslipidemia, hypertension, ischemic heart diseases, diabetes mellitus type 2 and metabolic syndrome [21],[6,7,8].

students of universities are theoretically essential aims for the advertising of well lifestyles of residents due to they have poor eating routine, fast psychological and physical developments may lead to weight gain [9][10,11,12]. Poor eating routine in college students occurs due to stress, anxiety, deficiency of time and Environmental elements [13,14,15].

usual harmful eating habit is involved: meal missing, eating outside the home, fast food eating, smoking and inappropriate sleep habit[11,12,16][19].

It had been supposed that medical students would have routine well nutritional lifestyles matched to non-medical students [17].

While medical students had adequate information concerning good dietary lifestyles, they unsuccessful to put on this information into habit [13]. The stress of life and medical education load are the factors that have an adverse effect on their food habit [18].

The reason for this paper was to get a primary accepting of a relation level of basal metabolic rate spreading in al Muthanna university medical students and to regulate the dietary awareness and body-image insights.

## METHODS:

across-sectional analysis was done between November 2017 & May 2018 in al some city/Iraq. Medical students of al Muthanna university [92 (32%) men and 193 (68%)women] contributed in this paper. An experimental students old (18-25) years with mean and SD.(19.9 ± 1.3), were ordered by a self-informed survey. The survey involved 15 requests; concerning drinking, eating and smoking behaviours (13 requests), and tow requests related to slimming (weight loss). All students mention there weight and height to assess their basal metabolic rate ( $\text{kg}/\text{m}^2$ ). A survey was planned by the writers and grounded on a general nutritional assessment via the Iraqis' the ministry of health and chines study. A knowledgeable agreement was obtained from all students of this paper affording to the Declaration of Helsinki. SPSS 22 was applied for analytic data In this paper, Chi-square examines were guided for analyzed variables. P-value < 0.05 was reflected statistically significant.

## Features of the model and BMI groups

In features of study sample table (1) showed: the whole sample of study are 92 male and 193 female, with a mean and standard deviation(SD). ( 20 ± 1.3) years. Mean and SD of BMI was (22 ± 3.04). To examine the spreading of BMI and health-related performance, BMI was classified into 4 clusters according to WHO classification of obesity and BMI [1]. As showed in the table (2) and fig. (2), normal BMI groups showed 24% males and 49% females. While low weight ( less than 18.5) showed 2% males and 7% females, overweight BMI ( 25- 29.9) showed 5% males and 10% females. While obese students (over than 30) in males 1% only and females 1% also.

Table (1): Features of the study sample.

	Age	BMI
Mean	19.89	22.21
Std. Deviation	1.317	3.043

Table (2): BMI clusters of students.

		BMI				Total	
		low weight	normal	overweight	obese		
gender	male	Count	6	68	15	3	92
		% of Total	2.1%	23.9%	5.3%	1.1%	32.3%
	female	Count	21	140	30	2	193
		% of Total	7.4%	49.1%	10.5%	0.7%	67.7%
Total		Count	27	208	45	5	285
		% of Total	9.5%	73.0%	15.8%	1.8%	100.0%

Table (3): Regime performs by gender

Questions	Levels	Total (%)	Male (%)	Female(%)	p values
You have a meal	-always regular	139 49 %	52 18 %	87 31 %	n.s.
	-irregular	146 51%	40 14%	106 37%	
you have breakfast	everyday	126 44%	47 16 %	79 28 %	n.s.
	-3 or 4 periods/week	57 20%	18 6%	39 14 %	
	-1or 2/	45 16%	15 6 %	30 10 %	
	-not often	57 20 %	12 4 %	45 16 %	
times you eat meals exclude snacks	-1 spells	15 5 %	9 3 %	6 2 %	P<0.05
	-2 spells	105 37 %	24 8 %	81 29 %	
	-3 spells	138 48 %	51 18%	87 30 %	
	-4 spells	27 10 %	8 3 %	19 7 %	
snacks you have together with fixed meal	-everyday	64 22 %	16 6 %	48 16 %	n.s.
	-3 or 4/week	73 26 %	23 8 %	50 18 %	
	-1 or 2/week	76 27 %	31 11 %	45 16 %	
	-not often	72 25 %	22 8 %	50 17 %	
you have green, red or yellow colored vegetables	everyday	110 39 %	25 9 %	85 30%	P<0.05
	3 or 4/week	93 32 %	38 13%	55 19%	
	1 or 2/week	60 21 %	25 9%	35 12%	
	not often	22 8 %	4 2 %	18 6%	
you eat fruits	everyday	106 37%	25 9%	81 28%	P<0.05
	3 or 4/week	96 34%	34 12%	62 22%	
	1 or 2/week	66 23%	29 10%	37 13%	
	not often	17 6%	4 1%	13 5%	
you eat fried food	everyday	95 33%	29 10%	66 23%	n.s.
	3 or 4/week	99 35%	37 13%	62 22%	
	1 or 2/week	65 23%	21 7%	44 16%	
	not often	25 9%	5 2%	20 7%	
you have to eat with family and friends	everyday	200 70%	56 20%	144 50%	n.s.
	3 or 4/week	32 11%	12 4%	20 7%	
	1 or 2/week	36 13%	15 5%	21 8%	
	at all times lonely	17 6%	9 3%	8 3%	
you are smoking	present smoker	16 6%	16 6%	0 0%	P<0.05
	ex-smoker	12 4%	9 3%	3 1%	
	not smoke	257 90%	67 24%	190 66%	
food you eat to ensure a stable diet	mostly meat	20 7%	12 4%	8 3%	P<0.05
	mostly	46 16%	14 5%	32 11%	
	meat, vegetable and	219 77%	66 23%	153 54%	

**Eating routine:**

Regime performs were linked by gender table (3). The bulk of students (51 %) informed they had meals irregularly, 44 % had everyday breakfast, 27% had snacks 1 or 2 /week together with the fixed meal, 35% they had to eat fried food 3 or 4 per week, 70 % of them eat with family and friends. But there was no difference between males and females for all above. Conversely, a significant variance was established in the reaction relating to 3 spells eat meals exclude snacks, with 18% of males and 30% of females (p < 0.05). Every day had green, red or yellow colored vegetables was notably more in women (30%) than in men (9%), (p < 0.05). Every day ingesting vegetable and fruits was significantly more in female than male (28%), (9%) respectively p < (0.05). smoking habit is more significant in male (6%) than female (0%) but (90%) of students, not smoking.

Female more eat stable diet meat, vegetable and another type of food than male (54%) p< 0.05. Table (3).

**Body shape and health awareness :**

According to body shape and health awareness, we study group of males separate from group of females, 53% of males not tried to be on a regime but 66% had been slim to become attractive, and (38%) had snacks 3 or 4/ week, (67%) had awareness to discover extra information about dieting, (63%) of them had to change lifestyle and improve dieting but all not significant and not dependable on their BMI they had normal BMI. In the female group, there was significant and dependable body shape and health awareness, (51%) of female had been tried to be on regime p < 0.05. And (69%) of them had an awareness to discover extra information about dieting p < 0.05.

Table 4 - Body shape and health awareness of Iraqis students

Male		BMI groups										p values
Requests	Stages	Low weight%		Normal %		Overweight %		Obese %		Total %		
you tried to be on a regime	sure	3	3%	30	33%	8	9%	2	2%	43	47%	n.s.
	No	3	3%	38	41%	7	8%	1	1%	49	53%	
you need to be slim to become attractive	Sure	4	4%	45	49%	11	12%	1	1%	61	66%	n.s.
	No	2	2%	23	25%	4	5%	2	2%	31	34%	
you have snacks	everyday	2	2%	13	14%	5	6%	1	1%	21	23%	n.s.
	3 or 4/ week	3	3%	27	29%	4	5%	1	1%	35	38%	
	1 or 2 / week	1	1%	14	15%	4	4%	0	0%	19	20%	
	not often	0	0%	14	15%	2	2%	1	1%	17	18%	
You have awareness	to discover extra	4	4%	48	52%	7	8%	3	3%	62	67%	n.s.
	discover in the future	2	2%	15	17%	3	3%	0	0%	20	22%	
	Not concern but well to discover	0	0%	3	3%	5	6%	0	0%	8	9%	
	not concerned	0	0%	2	2%	0	0%	0	0%	2	2%	
You have to change	dietary lifestyles& improve	4	4%	42	46%	11	12%	1	1%	58	63%	n.s.
	not need	1	1%	15	17%	2	2%	2	2%	20	22%	
	Don't care	1	1%	11	12%	2	2%	0	0%	14	15%	

Female		BMI groups										p-value
Requests	stage	Low weight(%)		Normal(%)		Overweight(%)		Obese(%)		Total (%)		
you tried to be on a regime	Sure	6	3%	70	36%	21	11%	1	1%	98	51%	P<0.05
	No	15	7%	70	36%	9	5%	1	1%	95	49%	
you need to be slim to become attractive	Sure	15	7%	98	51%	27	14%	1	1%	141	73%	n.s.
	No	6	3%	42	21%	3	2%	1	1%	52	27%	
you have snacks	everyday	9	5%	55	28%	13	7%	0	0%	77	40%	n.s.
	3 or 4 /week	4	2%	40	21%	6	3%	1	1%	51	27%	
	1 or 2 / week	3	2%	34	17%	7	3%	1	1%	45	23%	
	not often	5	3%	11	5%	4	2%	0	0%	20	10%	
You have awareness	to discover extra	10	5%	100	52%	24	12%	0	0%	134	69%	P<0.05
	discover in the future	8	4%	26	14%	4	2%	2	1%	40	21%	
	Not concern but well to discover	2	1%	13	7%	1	0.5%	0	0%	16	8.5%	
	not concerned	1	0.5%	1	0.5%	1	0.5%	0	0%	3	1.5%	
You have to change	dietary lifestyles&improve	11	5.5%	95	49%	21	11%	1	0.5%	128	66%	n.s.
	not need	3	2%	29	15%	5	3%	1	0.5%	38	20.5%	
	Don't care	7	3.5%	16	8%	4	2%	0	0%	27	13.5%	

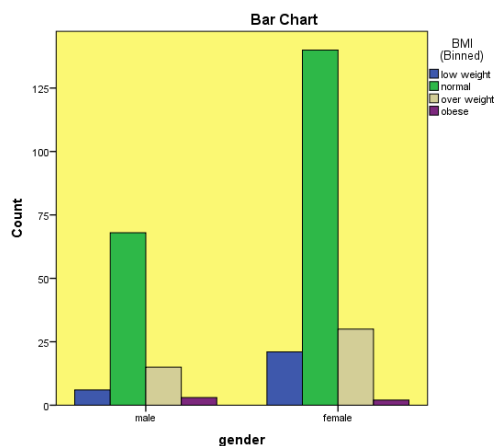


Fig. (2) : BMI clusters of students.

While (73%) had been slim to become attractive, and (40%) had snacks every day. (66%) of them had to change lifestyle and improve dieting but all not significant and not dependable on their BMI they had normal BMI. Table (4).

**DISCUSSION :**

The aim of this study is to conclude nutritional awareness, dietary rule and fit lifeway of Iraqis medical students in al Muthanna university. As an outcome, we documented the spreading of BMI between students and we discovered a small frequency of the obesity, a result is uniform with a paper of female students in Japan (overweight was 5.8%, obese was 0%) [22]. 35% of the college scholars are described to be overweight or obese in USA [24]. Agreeing to the WHO description of obesity [23]. Also, the result was uniform with a study of Chinese students (overweight was 2.5%, obesity was 0.4%) [34].

The WHO skilled discussion described that BMI in Asian populations is associated with disease [25]. The amount of energy resulting from the oil of both animal and vegetable origins enlarged every year. A new revision showed that energy resulting from nutritional fat equal extra than 30% of the entire power [26]. Variations in nutritional structure, which parallel to socioeconomic development, may be quicken occurrence of obesity in Iraq. A consequences of revision display that a bulk of scholars asymmetrical eat 3 spells/day (48%), in contrast to Chinese students (83%) had regular eat three spells /day , and nearly (39%) of Iraqis students eat fruit and vegetables every day this results from similar Chinese research (48%) ,these eating lifestyles must be fortified [34].

The traditional Iraqis diet contains sufficiently of vegetables especially rice. Like Chinese students (76%), the current study informed a great number of scholars eat breakfast daily (48%) [34]. In compare, a nutritional survey of Japanese students and Chinese students have shown a little of students involved in systematic eating arrangement [27].

The missing of breakfast had been related to poorer dietary rank and a danger of circulatory illnesses [28]. Also had been described that insufficient breakfast lifestyles may effect on appearance and additional progress of obesity [29]. So the significance of systematic eating designs not be exaggerated in dietary learning. Results revealed that build character awareness was significantly changed among female and male students. A number of scientists had been explored the association of body appearance and gender character.

females have always try to be a thinner character, direct additional worry about appearing obese, and are further liable to the regime than males [30,31]. In compare, males had been described a wish for a fuller build and bulkiness [32]. In current years, eating sicknesses had been rising intensely among youthful females. The outcomes of our revision not approved this idea to the level of statistical significance; though, it means aiming that 49% and 7% of female students normal and low weight BMI, designated a wish to be slim. Actuality youthful, female, and slimming are known danger causes that had been dependably related to the progress of consumption illnesses [33]. It was guessed that the students who were anxious with a slim build may progress eating disorders. So, a preferment of fit mass managing exercises must be measured when evolving health training plans.

#### CONCLUSION:

our results expose that a bulk of students be there categorized into the normal basal metabolic rate set, with a frequency of obesity creature actual little in this revision example. Youthful feminine students had a more wish to be slimmer than male students. Lifestyles including systematic consumption arrangements and vegetable eating were initiate and characterize performs that must be fortified. The snack and meal plans in Iraqis students were like to the old-style consumption design. The university grounds signify the last chance for the nutritional instruction of a big amount of students from the instructor's viewpoint. We suggest the need for plans planned to develop capability in the area of nutrition. Also, community request for fitness and dietary data should be occupied into thought when applying plans to educating the dietary healthy people.

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#### REFERENCES :

1. World Health Organization: Obesity: preventing and managing the global epidemic. Report of a WHO consultation. World Health Organ Tech Rep Ser 2000, 894:1-253.
2. MUSAIGER AO, AL-MANNAI MA: Weight, height, body mass index and prevalence of obesity among the adult population in Bahrain. *Ann Hum Biol* 2001, 28(3):346-350.
3. AL-KANDARI YY: Prevalence of obesity in Kuwait and its relation to sociocultural variables. *Obes Rev* 2006, 7:147-154.
4. CARTER AO, SAADI HF, REED RL, DUNN EV: Assessment of obesity, Lifestyle, and Reproductive Health Needs of Female Citizens of Al Ain, United Arab Emirates. *J Health Popul Nutr* 2004, 22(1):75-83.
5. ANTONIO G, CHIARA PA: A Natural Diet Versus Modern Western Diets? A New Approach to Prevent "Well-Being Syndromes". *Dig Dis Sci* 2005, 50(1):1-6.
6. YANG P, ZHOU Y, CHEN B, WAN HW, JIA GQ, BAI HL, WU XT: Overweight, obesity and gastric cancer risk: Results from a meta-analysis of cohort studies. *Eur J Cancer* 2009, 45(16):2867-2873.
7. FREEDLAND SJ, WEN J, WUERSTLE M, SHAH A, LAI D, MOALEJ B, ATALA C, ARONSON WJ: Obesity Is a Significant Risk Factor for Prostate Cancer at the Time of Biopsy. *Urology* 2008, 72:1102-1105.
8. NGUYEN NT, MAGNO CP, LANE KT, HINOJOSA MW, LANE JS: Association of Hypertension, Diabetes, Dyslipidemia, and Metabolic Syndrome with Obesity: Findings from the National Health and Nutrition Examination Survey, 1999 to 2004. *J Am Coll Surg* 2008, 207:928-934.
9. HUANG TT, HARRIS KJ, LEE RE, NAZIR N, BORN W, KAUR H: Assessing Overweight, Obesity, Diet, and Physical Activity in College Students. *J Am Coll Health* 2003, 52(2):83-86.
10. CHIN YS, MOHD NM: Eating behaviors among female adolescents in Kuantan District, Pahang, Malaysia. *Pak J Nutr* 2009, 8(4):425-432.
11. SAVIGE GS, BALL K, WORSLEY A, CRAWFORD D: Food intake patterns among Australian adolescents. *Asia Pac J Clin Nutr* 2007, 16:738-747.
12. SHI Z, LIEN N, KUMAR BN, HOLMBOE-OTTESEN G: Socio-demographic differences in food habits patterns of school children and adolescents in and preferences of school adolescents in Jiangsu Province, China. *Eur J Clin Nutr* 2005, 59:1439-1448.
13. RUBINA A, SHOUKAT S, RAZA R, SHIEKH MM, RASHID Q, SIDDIQUE MS, PANJU S, RAZA H, CHAUDHRY S, KADIR M: Knowledge and practice of healthy lifestyle and dietary habits in medical and non-medical students of Karachi, Pakistan. *J Pak Med Assoc* 2009, 59(9):650-655.
14. WEBB E, ASHTON CH, KELLY P, KAMAH F: An update on British medical students' lifestyles. *Med Educ* 1998, 32:325-331.
15. DOWDA M, AINSWORTH B, ADDY C, SAUNDERS R, RINER W: Environmental influences, physical activity and weight status in 8 to 16 year olds. *Archives of Pediatric and Adolescent Medicine* 2001, 155:711-717.
16. ALIZADEH M, GHABILI K: Health related lifestyle among the Iranian medical students. *Res Biol Sci* 2008, 3(1):4-9.
17. KAGAN DM, SQUIRES RL: Compulsive eating, dieting, stress and hostility among college students. *J Coll Stud Pers* 1984, 25(3):213-220.
18. MIKOLAJCZYK R, EL ANSARI W, MAXWELL A: Food consumption frequency and perceived stress and depressive symptoms among students in three European countries. *Nutr J* 2009, 8(1):31.
19. EYRE H, KAHN R, ROBERTSON RM: Preventing cancer, cardiovascular disease, and diabetes: a common agenda for the American Cancer Society, the American Diabetes Association, and the American Heart Association. *Diabetes care* 2004; 27: 1812-24.
20. DU S, MROZ TA, ZHAI F, POPKIN BM: Rapid income growth adversely affects diet quality in China - particularly for the poor! *Soc Sci Med* 2004, 59:1505-15.
21. DU S, LU B, ZHAI F, POPKIN BM: A new stage of the nutrition transition in China. *Public Health Nutr* 2002, 5:169-74.
22. RIE AMAMOTO , MINA DOZONO , KENJI TOYAMA : The relationship between dietary life and indefinite complaint in female Nutrition department students. *Seinan Jo Gakuin Bulletin* 2004:75-85.
23. World Health Organization: Obesity: preventing and managing the global epidemic. Report of a WHO consultation. *World Health Organ Tech Rep Ser* 2000, 894:i-xii, 1-253.
24. LOWRY R, GALUSKA DA, FULTON JE, WECHSLER H, KANN L, COLLINS JL Jan : Physical activity, food choice, and weight management goals

- and practices among US college students. *Am J Prev Med* 2000, 18:18-27.
25. WHO Expert Consultation: Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. *Lancet* 2004, 363:157-63
  26. Xiao-Shu Chen MD, Ke-You Ge: Nutrition transition in China: the growth of affluent diseases with the alleviation of undernutrition. *Asia Pacific Journal of Clinical Nutrition* 1995, 4:287-293.
  27. Ministry of Health, Labour and Welfare, Japan: The National Nutrition Survey in Japan, 2002. Daiichi publisher; 2004.
  28. Sakata K, Matumura Y, Yoshimura N, Tamaki J, Hashimoto T, Oguri S, Okayama A, Yanagawa : Relationship between skipping breakfast and cardiovascular disease risk factors in the national nutrition survey data. *Nippon Koshu Eisei Zasshi* 2001, 48:837-41.
  29. Ortega RM, Redondo MR, Lopez-Sobaler AM, Quintas ME, Zamora MJ, Andres P, Encinas-Sotillos A: Associations between obesity, breakfast-time food habits and intake of energy and nutrients in a group of elderly Madrid residents. *J Am Coll Nutr* 1996, 15:65-72.
  30. Cash TF, Brown TA: Body image in anorexia nervosa and bulimia nervosa. *Behav Modif* 1987, 11:487-521.
  31. Smith BL, Handley P, Eldredge DA: Sex differences in exercise motivation and body-image satisfaction among college students. *Percept Mot Skills* 1998, 86:723-32.
  32. Pope HG Jr, Gruber AJ, Mangweth B, Bureau B, deCol C, Jouvent R, Hudson JI: Body image perception among men in three countries. *Am J Psychiatry* 2000, 157:1297-301
  33. Pratt BM, Woolfenden SR: Interventions for preventing eating disorders in children and adolescents. *Cochrane Database Syst Rev* 2002:CD002891.
  34. Ruka Sakamaki 1,2, Kenji Toyama2, Rie Amamoto2, Chuan-Jun Liu3 and Naotaka Shinfuku1: Nutritional knowledge, food habits and health attitude of Chinese university students . *Nutrition Journal* 2005, 4:4.