

Eating habits of young university students

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Abstract

Background:

Many university students practice unhealthful lifestyles, placing them at risk for developing serious problems. Unhealthy dietary behavior is one of six top health risk behavior identified in university students. This study was to examine eating habits of young university students.

Materials and methods:

This cross-sectional study included 225 participants that who were University of Mohaghegh Ardabili students aged 18-24 years. A self administered questionnaire was used to obtain data about consumption frequency of some food and demographic characteristics.

Results:

The mean of age and body mass index were 21.31 ± 3.23 years and 22.73 ± 3.66 Kg/m² respectively. 68.9% of university students reported having breakfast, lunch and dinner every day. Daily milk or yoghurt intake was 12.5%. Also 39.5% of participants reported consuming less than 200 gram vegetable and fruit every day. 59% had consumption of biscuits, cakes, chocolates and similar 2 or more times weekly and 50.3% had potato chips consumption at least once weekly.

Conclusion:

Most university students consume a diet that is lacking in fruits, vegetable and dairy products. Because the establishment of healthy eating behavior can have a long lasting impact on the

students' health and the health their future families, therefore nutritional education and intervention in this young population should be encouraged to promote healthier diet.

Key words:

University students, eating habits, University of Mohaghegh Ardabili

Introduction:

The health profile of 18- to 24-year-old adults is of concern because they will soon enter the age range of high chronic disease burden [1]. A key determinant of one's health status is nutritional intake [2]. Starting University can be an important time point in an individual's life, since it often represents a period of increased responsibility regarding food choices and healthy lifestyle practices [3]. It has been reported that establishment of dietary habits in early life is associated with a considerable effect on the health of individuals in the long term [4].

Eating habits tend to become worse during college [5] and young adulthood [1]. In the past, unfavorable dietary habits and health behaviors among University students were commonly reported in different countries [6-13]. Various factors determine college students' selection of food. Among them are a shortage of time, convenience, cost, taste, health, physical and social environment and weight control [14].

Little research has been published that assesses eating habits in Iranian university students. Therefore, the purpose of this study was to examine eating habits young students at University of Mohaghegh Ardabili.

Materials and methods:

This cross-sectional study was carried out from October to December 2013 at University of Mohaghegh Ardabili in Ardabil. A total of 225 volunteer students between 18 and 24 years old (104 males and 121 females) participated in this study were asked to fill out a self-report questionnaire.

Demographic variables included age, gender, marital status, household size and number of children, living location, activity and history of diseases.

Dietary habits were surveyed using a questionnaire to monitor the frequency of consumption of various foods during the week or day. The questionnaire was designed by the authors and was based on previously published papers.

Participants' weight and height were measured in light clothing and without shoes using a balanced scale (SECA model 224, SECA Corp., Hamburg, Germany). The body mass index (BMI) was calculated as weight (kg) divided by squared height (m²) of each participant. m²). In the present study, the BMI classification of the WHO was used, classifying overweight as BMI 25–29.99 kg/m² and obesity as ≥ 30 kg/m² [15]. All analyses were performed using the Statistical Package for the Social Sciences version 16.

Results:

Of the 225 survey participants, 53.8% and 46.2% were female and male respectively. The mean of age was 21.31 ± 3.23 years. The majority (60.3%) of students lived in student residences. Only 7% of samples were married.

The body mass index ranged from 15.21- 37.89 kg/m^2 . The mean of BMI was 22.73 ± 3.66 Kg/m^2 . Approximately 2.7% were obese, 15.7% were overweight; 55.3% were normal weight and the remainders were underweight.

Most participants (96 %) reported having no dietary restrictions or following a certain eating regimen. The dietary habits are presented in table 1. In this study, majority of university students (68.9%) reported having at least three meals per day. However, one in every four participants (23%) reported having breakfast, lunch and dinner only 3-4 times per week. Only 12.5% of the samples reported daily milk or yoghurt intake and intake in less than half of the participants (46.5%) was 2-3 times per week. Also 39.5% of participants reported consuming less than 200 gram fruit every day. More than half of subjects (59%) had consumption of high sugar foods such as biscuits, cakes, chocolates and similar 2 or more times weekly and 50.3% had fast or fried food consumption such as potato chips at least once weekly.

Discussion:

Dietary habits of young adults between ages 18 and 24 years have increasingly drawn researchers' attention. This age group is in transition from adolescence to adulthood and has the potential to influence the health status of the next generation. Previous literature revealed that young adults tended to consume excess amounts of total fat, saturated fat, cholesterol and sodium. Other studies have found inadequate intakes of essential micronutrients, such as calcium, iron, zinc, folate, and vitamins A, B6 and C [16]. Unhealthy dietary behavior is one of the six top health risk behaviors identified in college students [17].

However, in this study compared to current dietary recommendations [18] most college students typically consumed a diet that is lacking in fruits, vegetables, and dairy products. Their diet was high fat and sugar. These results were consistent with the results of previous studies among university students [11, 13, 17, 19]. Unfavorable dietary habits of university students with regards to fried/ high-fat fast food intake have often been reported in the past [13, 20].

In summary, Iranian university students often do not meet dietary recommendations. These findings may prove useful for the design of nutrition education and health promotion programs within the university framework, in order to improve students' dietary habits.

Table 1: Dietary habits and their frequency

| Dietary habits | Frequency |
|--|-----------|
| Having 3 meals per day | |
| 1-2 day/weekly | 8.1% |
| 3-4 day/weekly | 23% |
| 5-7 days/weekly | 68.9% |
| Vegetable and fruit intake/daily | |
| <200gr | 39.5% |
| 200-500gr | 49.1% |
| >500gr | 11.4% |
| Milk and yogurt/weekly | |
| Never | 1.3% |
| Once times | 39.7% |
| 2-3 times | 46.5% |
| 5-7 times | 12.5% |
| Sweets and high sugar food intake/weekly | |
| Never | 19.5% |
| Once times | 21.5% |
| 2-3 times | 49.8% |
| ≥4 times | 9.2% |
| Soft drinks/weekly | |
| Seldom | 62.8% |
| 1-3 times | 34.7% |
| ≥4 times | 2.5% |
| Fast or fried food/weekly | |
| Never | 12.6% |
| Once times | 50.2% |
| 2-3 times | 35.2% |
| ≥4 times | 2% |

Reference:

- [1] Winkleby, M.A., Cubbin, C., 2004. "Changing patterns in health behaviors and risk factors related to chronic diseases, 1990-2000". American journal of health promotion, 19, pp: 19-27.
- [2] U. S. Department of Health and Human Services. 2000. Healthy People 2010. US Department of Health and Human Services. Washington, DC.
- [3] Colic´ Baric´, I., Satalic´, Z., Lukesic´, Z., 2003. "Nutritive value of meals, dietary habits and nutritive status in Croatian university students according to gender". International Journal of Food Sciences and Nutrition, 54(6), pp. 473-484.
- [4] Johansen, A., Rasmussen, S., Madsen, M., 2006. "Health behavior among adolescents in Denmark: Influence of school class and individual risk factors". Scandinavian Journal of Public Health, 34(6), pp. 32-40.
- [5] Grace, T.W., 1997. "Health problems of college students". Journal of American college health, 45, pp. 243-250.
- [6] Kim, K.A., Kang, H.J., Kim, K., 1999. "A study of weight control attempt, psychosocial status, nutrition behavior and related factors among female university students". J Comm Nutr, 1, pp. 108-118.
- [7] Nakamura, K., Hoshino, Y., Watanabe, A., Honda, K., Niwa, S., Tominaga, K., Shimai, S., Yamamoto, M., 1992. "Eating problems in female Japanese high school students: a prevalence study". Int J Eat Diord, 26, pp.91-95.
- [8] Soriano, J.M., Molto, J.C., Manes, J., 2000. "Dietary intake and food pattern among university students". Nutrition Research, 20(9), pp.1249-1258.
- [9] Anding, J.D., Suminski, R.R., Boss, L., 2001. "Dietary intake, body mass index, exercise, and alcohol: Are college women following the dietary guidelines for Americans?" Journal of American College Health, 49(4), pp. 167-171.
- [10] Steptoe, A., Wardle, J., Cui, W., Bellisle, F., Zotti, A.M., Baranyai, R., et al. 2002. "Trends in smoking, diet, physical exercise, and attitudes toward health in European university students from 13 countries 1990-2000". Preventive Medicine, 35(2), pp. 97-104.
- [11] Huang, T.T., Harris, K.J., Lee, R.E., Nazir, N., Born, W., Kaur, H., 2003. "Assessing overweight, obesity, diet, and physical activity in college students. Journal of American College Health" 52(2), pp. 83-86.
- [12] Mammias, I., Bertias, G., Linardakis, M., Moschandreas, J., Kafatos, A., 2004. "Nutrients intake and food consumption among medical students in Greece assessed during a clinical nutrition course". International Journal of Food Sciences and Nutrition, 55(1), pp.17-26.
- [13] Racette, S.B., Deusinger, S.S., Strube, M.J., Highstein, G.R., Deusinger, R.H., 2005. "Weight changes, exercise, and dietary patterns during freshman and sophomore years of college". Journal of American College Health, 53(6), pp. 245-251.
- [14] Davy, S., Benes, B.A., Driskell, J.A., 2006. "Sex differences in dieting trends, eating habits, and nutrition beliefs of a group of Midwestern College students". Journal of the American Dietetic Association, 106, pp.1673-1677.
- [15] WHO, 1997. World Health Organization. Obesity. Preventing and Managing the Global Epidemic. Report of a WHO Consultation on Obesity. Geneva: WHO, WHO/NUT/NCD/98.1. Technical Report Series Number 894.
- [16] Ma, J., Betts, N.M., Horacek, T., Georgiou, C., White, A., 2003. "Assessing stages of change for fruit and vegetable intake in young adults: a combination of traditional staging algorithms and food-frequency questionnaires". Health Education. Research, 18 (2), 224-236.
- [17] Brunt, A.R., Rhee, Y.S., 2008. "Obesity and lifestyle in U.S. college students related to living arrangements". Appetite ,51, pp. 615-621.
- [18] U. S. Department of Health and Human Services, & U. S. Department of Agriculture., 2005. Dietary Guidelines for Americans. 5th ed. Washington, DC: US Departments of Agriculture and Health and Human Services.



- [19] Haberman, S., Luffey, D., 1998. "Weighing in college student's diet and exercise behaviors". Journal of American College Health, 46, pp. 189–191.
- [20] Sakamaki, R., Amamoto, R., Mochida, Y., Shinfuku, N., Toyama, K.A., 2005. "Comparative study of food habits and body shape perception of university students in Japan and Korea". Nutrition Journal, 4, pp.31.