

## THE EFFECT OF NUTRITION ON THE GENERAL HEALTH OF THE ATATURK UNIVERSITY STUDENTS

H. Sajedi<sup>a</sup>, D. Öztürk<sup>b</sup>, M. Ogan<sup>c</sup>, M. Ertugrul Ozturk<sup>d</sup>

<sup>a</sup>Department of Physical education and Sport Science, University of Ataturk (Erzurum), Turkey

<sup>b</sup>Department of health services Vocational school Ataturk University

<sup>c,d</sup>Department of Physical education and Sport Science, Kazim Karabekir Education Faculty, University of Ataturk (Erzurum), Turkey

E-mail : [Sajedy\\_hacidar@yahoo.com](mailto:Sajedy_hacidar@yahoo.com)

### Abstract

This study evaluated the nutrition knowledge, nutrition kind and physical activity percentage effects on general health of the university student. The studied student was selected of different faculties. Standard questionnaire (K Parmenter and J Wardle 1999) used to measure subject's nutrition knowledge, disturbed among 405 students randomly. The collected data was analyzed and difference was at 5% probability level. The results showed physical education students had the most knowledge of nutrition and the business student had the less information. The highest daily physical activity was related to the physical education students and they included the less illness percentage, but the female students illness percentage was higher than male students. According to our results, to conserve of the general health, in addition to the nutrition knowledge, the students should be have sufficient daily physical activity, too.

**Keywords:** Nutrition, Physical activity, Illness percentage.

### 1. INTRODUCTION:

Nutrition and physical activity are major determinants of health and disease and are associated with risk of premature mortality, coronary heart disease, hypertension, colon cancer, type 2 diabetes, osteoporosis and weight gain (WHO, 2003). Promoting physical activity and a healthy diet thus has the potential to substantially reduce the burden of disease and improve quality of life. Currently older adults consume too few fruits and vegetables, and have lower than recommended intakes of a range of nutrients important for prevention of chronic disease (Magarey *et al.*, 2006). The quality of diet with food choices based on nutrient-dense foods becomes increasingly important, particularly for the avoidance of weight gain (National Health and Medical Research Council, 1999). Nutrition and physical activity behaviors are known to vary according to socioeconomic position (Mishra *et al.*, 2002; Chinn *et al.*, 1999). The importance of proper nutrition as one of the important aspects of lifestyle were emphasized in these cent years and the trend toward healthier diets has increased (Stampfer *et al.*, 2000). Evidences of Epidemiology indicate that changes in lifestyle in recent years increased incidence of major diseases, change in nutrition habits can be noted as an important change. Nutrition education as one of the important practical aspects of nutrition knowledge, play an important role in raising public awareness and ultimately health of society (Harvey-Berino *et al.*, 1997). The main goal of nutrition plans is obtaining the appropriate and necessary nutrition to remain healthy, to be physically prepared and to lead a healthy life. Enhancing the nutrition attitudes, knowledge and practices of students have high importance, because this subsequently will lead to more food-conscious society and more healthy people. Also, students are more likely to change positively; therefore, nutritional education to enhance their knowledge can be helpful forth community. On the other hand, some researches have shown that most students are not familiar with healthy foods needed for their body in different conditions (Cotugna *et al.*, 2005; O'Dea, 2004). Ruka's research showed that the majority of students (83.6%) eat the three meals of the day regularly and no difference was found between men and women. Although Ruka showed 85.6% of students are familiar with concepts of balance between the nutrients in foods, but only 7% of them use it in their diet, yet 51% of students showed a tendency towards learning healthy diet (Ruka *et al.*, 2005). Gates *et al.* (1998) showed that students with normal weight have more healthy diet and better points in nutrition knowledge and attitudes compared with the other (Gates and De Lucia, 1998). Cupisti and colleagues by comparing the nutrition habits and nutrition knowledge of students in both physical education and non-physical education, found that consumption of carbohydrate in physical education students was more than non-physical education students and consumption of fat in non-physical education students was more. Physical education students consumed large amounts of fiber, iron and vitamin, but consumption of iron and calcium in both groups was less than required daily amounts (Cupisti *et al.*, 2004). The aim of this study was evaluation of the nutrition on the general health of the student and the percentage student information of the benefits foods kind and amount of the student consumption of these foods.

2. MATERIALS AND METHODS:

This study was done in the Ataturk University, Erzurum, Turkey. In this study was used of standard questionnaire but some questions was modified according to food and nutrition culture (Debra Dunn, 2002; Shaaban *et al.*, 2009). For this study was selected 405 students (Male and Female) of different faculties. There were 4 different kind of questionnaire. The topic of the questionnaire were about nutrition kind and weight, daily physical activity and weight, nutrition kind and general health and tiredness, student information percentage of food kinds. Means, standard deviation and percentage was calculated for every questionnaire and analysis of variations (ANOVA) was done for the data. Statistical results were considered to be significant at  $p \leq 0.05$ . Mean and standard deviation of height, weight and Body Mass Index (BMI) of subjects are in Tables 1 and 2.

**Table 1: Anthropometric characteristics of subject**

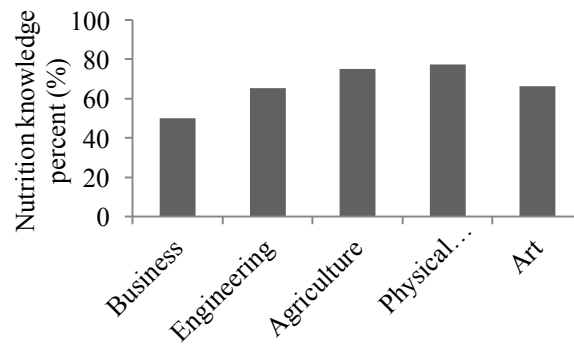
Gender	Height	Weight	BMI
Male	178.02±5.12	71.25±8.61	23.12±2.7
Female	160.5± 5.80	56.41±7.32	20.8±1.9

**Table 2: Body mass index of Students**

	Males		Females	
	Number	Percentage	Number	Percentage
Lean	19	14.73	67	24.27
Normal Weight	87	67.45	164	59.42
Over weight	15	11.62	21	7.61
Obese	2	1.55	5	1.81
Total	123	95.34	257	93.12
No reply	6	4.65	19	6.88
Total	129	100	276	100

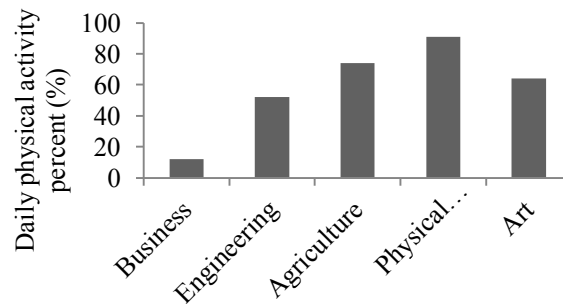
3. RESULTS:

The results showed that fat consumption had significant effect on the weight increasing at 5% probability level. Especially male students influenced on foods with more fat percentage in compare to the female students. The results showed that knowledge level of Physical Education is highest and Business Administration is the lowest (Figure 1). One-way ANOVA show that, there is not a significant difference in the knowledge level between students of different majors ( $p < 0.33$ ;  $F = 1.076$ ). Also knowledge level of female subjects was higher than that of male subjects. The results showed that daily physical activity percent of Physical Education is highest and Business Administration is the lowest (Figure 2).

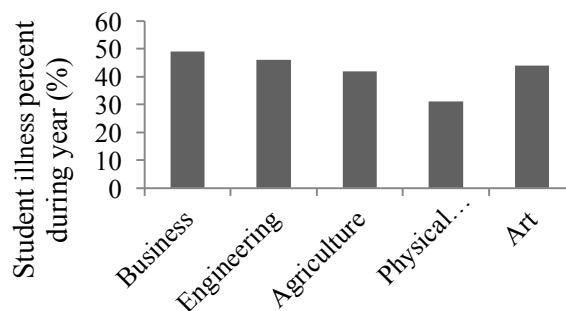


**Fig. 1: Nutrition knowledge percent of faculty students**

According to the ANOVA results, there was significant difference between faculties student for daily physical activity at 5% probability level. Also, the male daily physical activity was higher than female. The results indicated that the illness percent was the most percent for the business student and was the less for the physical education (Figure 3). Also, the female illness percentage was more in compare to the male percentage. There was significant difference between the general health of the students according to the daily physical activity at 5% probability level. Also, the students that had consumed more protein as food included less illness percentage.



**Fig. 2: Daily physical activity percent of faculty students**



**Fig. 3: Student illness percent during year**

#### 4. DISCUSSION:

Some pervious researches have shown that students are slightly aware of nutrition issues and their knowledge and attitude are average (Sakamaki *et al.*, 2005). The researches results showed that nutrition knowledge is related with the field of study (Azizi *et al.*, 201). With regard to the fact that nutrition, physiology and exercise science are the subjects of physical education courses, it can be said that reason of increase in the nutrition knowledge of these students in comparison to other students is the passing of such courses. Sharma and colleagues (2008) also reported that the nutritional knowledge is significantly related with dietary habits (including Consumption of meat, dairy, grains and water) (Sharma *et al.*, 2008).

## 5. CONCLUSION:

With regard to the fact that high nutrition knowledge and attitude of physical education students and their less illness percentage are related to their nutrition courses. So using of general seminar or workshops to inform other students to know the sufficient nutrition and benefit foods can be use full and can increase the general health of the university student.

## 6. REFERENCES:

1. Azizi, M., Rahmani-Nia, F., Malaee, M., Malaee, M., & Khosravi, N. (2010). A study of Nutritional knowledge and attitudes of elite College Athletes in Iran. *Brazilian Journal of Biomotricity*, 4(2), 105-112.
2. Chinn, D.J., White, M., Drinkwater, C., & Raybould, S. (1999). Barriers to physical activity and socioeconomic position: implications for health promotion. *Journal of Epidemiology Community Health*, 53, 191–192.
3. Cotugna, N., Connie, E., Vickery, R.D. & McBee, Sh. (2005). Sports Nutrition for Young Athletes. *The Journal of School Nursing*, 21(6), 323-328. doi: 10.1177/10598405050210060401.
4. Cupisti, A., Downs, M., Dumke, C.L., & Neiman, D.C. (2004). Nutrition supplementation practice and nutrition knowledge of marathon runners. *Medicine and Science in Sport and Exercise*, 36(5), 349-350.
5. Debra Dunn, L., Turner, W., & George, D. (2002). Nutrition Knowledge and Attitudes of College Athletes. *The Sport Journal*, 23(2), 1543-9518.
6. Gates, G.E., & De Lucia, B.a. (1998). Influences of lifestyle patterns on diet. *Journal of American Association*, 989(9), 82-87.
7. Harvey-Berino, J., Hood, V., Rourke, J., Terrance, T., & Dowaldt, A. (1997). Secker-walker. Food preferences predict eating behavior of very young Mohawk children. *Journal of American Dietary Association*, 97, 750-3.
8. Magarey, A., McKean, S., & Daniels, L.A. (2006). Evaluation of fruit and vegetable intakes of Australian adults: the National Nutrition Survey 1995. *Australlian and Newzealand Jouranl of Public Health*, 30(1), 32–37.
9. Mishra, G.D., Ball, K., Arbuckle, J., & Crawford, D. (2002). Dietary patterns of Australian adults and their association with socioeconomic status: results from the 1995 National Nutrition Survey. *European Journal of Clinic Nutrition*, 56, 687–693.
10. National Health and Medical Research Council: *Dietary Guidelines for Older Australians*. (1999). Canberra: Commonwealth of Australia.
11. O’Dea, A.J. (2004). School-based health education strategies for the improvement of body image and prevention of eating problems. An overview of safe and successful interventions. *Jouranl of Health Education*, 105(1), 11-33.
12. Ruka, S., Toyama, k., Amamoto, R., Liu, Ch., & Shinfuku, N. (2005). Nutritional knowledge, food habits and health attitude of Chinese university students-a cross sectional study. *Journal of Nutrition*, 4(4), 1475-1480.
13. Sakamaki, R., Toyama, k., Amamoto, R., Liu, C.H., Shinfuku, N. (2005). Nutritional knowledge, food habits and health attitude of Chinese university students across sectional study. *Nutrition Journal*, 4(4), 1-5.
14. Shaaban, S.Y., Nassar, M.F., Abd, D.M., Elhamid, S.R., & Lasheen, R.A. (2009). Nutritional Knowledge and Attitude of Adolescent School Girls Living in Cairo. *Research Journal of Medicine and Medical Science*, 4(2), 421-427.
15. Sharma, S.V., Gernand, A.d., & Day, R.S. (2008). Nutrition knowledge predicts eating behavior of all food groups except fruits and vegetables among adults in the Paso del Norte region: *Qué Sabrosa Vida*. *Journal of Nutrition and Education Behavior*, 40(6), 361-8.
16. Stampfer, M., Huf, B., Mansen, J.e., & Rimm, E.B. (2000). Willettwc. Primary prevention of coronary heart disease in women through diet and life style. *New Engeland Journal of Medicine*, 6, 343(1), 16-22.
17. WHO. *Diet, Nutrition, and the Prevention of Chronic Diseases: Report of a Joint WHO/FAO Expert Consultation*. (2003). Geneva: WHO Technical Report Series 916.