



Original Research Article

Health Life Style Behaviors and Nutritional Habits of Medical Staff Students

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ABSTRACT

Determining the nutritional tendency of student is important in regulating nutritional habits and preventing the disorders that may be caused by an inappropriate diet. The study was planned as a descriptive study which aims to determine the level of physical activity and nutrition habits by medical staff students and to access a condition of their healthy life style by them. Material and method: The study was performed in May 2014 with the participation of 350 students in second year of studying, from physical therapy department at High Medical School in Bitola. Data were collected using a questionnaire prepared by the researches including the weekly physical activity, daily use of video terminals, and nutrition habits (healthy food, fast food, smoking and alcohol intake). Results: the medical staff student have middle positive nutrition habits, middle physical activity and in age of 18–25 years have muscle skeletal pain, by 55% of them. Conclusion: The study found that, students' eating habits were moderate risk, and healthy lifestyle behaviors affected students' eating habits. According to these results, it can be suggested that healthy lifestyle behaviors and training programs on healthy eating habits can be arranged.

Keywords

Medical staff students,
Life style

Introduction

Lifestyle is the typical way of life of an individual. Youth health depends a lot on their lifestyle. Health risk behaviours are those that can have adverse effect on the overall development and wellbeing of youth, or that may prevent them from future success and development (Can *et al.*, 2008; Li *et al.*, 2012). Behaviors regarding health usually take shape during the adolescence and university years. Having developed physical activity and good nutrition habits by students would prevent many illnesses for their future life.

Unhealthy diets and physical inactivity are key risk factors for the major noncommunicable diseases such as cardiovascular diseases, cancer, and diabetes (Płaczkowska *et al.*, 2014). Recognizing the opportunity for reducing deaths and diseases worldwide by improving diets and increasing levels of physical activity, the World Health Assembly adopted the WHO Global Strategy on Diet, Physical Activity and Health, in May 2004. This Strategy provides recommendations for Member States, WHO, international partners, private

sector, civil society and nongovernmental organizations on the promotion of healthy diets and regular physical activity for the prevention of noncommunicable diseases (Kehm *et al.*, 2015). Physical activity is defined as any bodily movement produced by skeletal muscles that require energy expenditure. Physical inactivity has been identified as the fourth leading risk factor for global mortality causing an estimated 3.2 million deaths globally. Regular moderate intensity physical activity – such as walking, cycling, or participating in sports – has significant benefits for health. For instance, it can reduce the risk of cardiovascular diseases, diabetes, colon and breast cancer, and depression. Moreover adequate levels of physical activity will decrease the risk of a hip or vertebral fracture and help control weight. Strong evidence demonstrates that compared to less active adult men and women, individuals who are more active: have lower rates of all-cause mortality, coronary heart disease, high blood, pressure, stroke, type 2 diabetes, metabolic syndrome, colon and breast cancer and depression. They are likely to have less risk of a hip or vertebral fracture; exhibit a higher level of cardiorespiratory and muscular fitness; and are more likely to achieve weight maintenance, have a healthier body mass and composition. Inactive people should start with small amounts of physical activity and gradually increase duration, frequency and intensity over time. Inactive adults and those with disease limitations will have added health benefits when they become more active.

Identification of the diet tendencies is important in term of organizing diet patterns and avoiding possible health issues that may be caused by unhealthy diet and taking up healthy lifestyle habits (Bednarek-Tupikowska *et al.*, 2012). Health care professionals, due to their professional responsibilities and social roles, have the

potential to become role models with the lifestyle they lead and have influence over group they serve through healthcare education. In improving health, the students of healthcare sciences have a special place and importance due to being both young and being potential future healthcare workers (Bezold *et al.*, 2014; London and Castrechini, 2011).

The purpose of our study was to assess the nutrition habits and physical activity by student's physiotherapist, and after that to see the need of involve educational curses for healthy life.

Material and Methods

The data was collected from 75 students physiotherapist, at High Medical School of Bitola, on the dates between October-November 2014. The data was collected through a questionnaire form developed by the researches, containing personal data and healthy lifestyle behaviors as well as BMI, physical activity of 4 hours weekly and computer optimum use of 2 hours daily.

Fist part of questioner is consisting of personal data, age, sex and body weight and high. The second part is collecting data from their positive (consummation of fish, fruits and vegetables) and bad nutrition habits (consummation of fast food, cola drinks and cigarettes). The third part is consisting of assessment of their physical activity-using sport (active sport, fitness, cycling, jogging, dance), or inactivity using computers and other video terminals. Scoring was made with percents of positive activities according maximal point: worst (0–24%) bad (25–50%), middle (51–74%) excellent (75–100%).

The data was compared between sex, and percentage of good and bad habits, and with or without physical activity.

Results and Discussion

From total 75 students 56% were on age 19-21 years, female 61 %, male 39%. The data is showing in table 1. Frequentation by sex and BMI is showing in table 2.

Assessment of nutrition healthy and bad habits is showing in table 3 and 4.

Collection of data for assessment of physical activity is consisting of: weekly sport activity and daily use of video terminals (VT) in hours. The results are showing in table 5 and 6.

This study is aimed at surveying the lifestyle of the present-day students in High Medical School. The importance of this survey relies on the fact that it provides current information about the nutrition health risk factors. Obesity is global health problem in world wide.

Frequentation of female is 61%, in our study, because it is still usual to choose medical staff education more female than male. The most of them (56%) are on 19-21 years of age. They did not know their body parameters a 17% and 66% of them have in range of normal BMI. Good nutrition habits are important for all age groups, and they could be important factor in prevention of many illnesses. Student can change their habits during studying in our environment only if they have used modern food becoming from West or new food industrial technology. Our country is reach with vegetables, fruits and fish, and that is serving at home and in the restaurants. Shops and bazaars are fool with healthy food. The fish is from near Leaks and from outside freezing. Every one student can bought healthy food, because it is producing in our environment and is not expensive. Population of students in our study intake healthy food: milk 11%, once and more in

week fish 64%, bean 92%, vegetables 45% and fruits every day 68%.

The healthy risky behaviours are growing rapidly although the rates are lower than other European countries. They have bad nutrition habits: smoking 37%, more male than female. They did not intake cola drinks at all 44%, more females than male and did not intake fast food 23%, more females than males. Because some of them are living out of their homes, we deseeded to take for normal if they bought ones weekly fast food meal. In that case the percentage of that who have not bad nutrition habits is following 82% for not cola drink, and 52% for fast food.

The total score for positive nutrition habits is 1000 points and our group have 570 points or 57%, and it is in middle level of nutrition habits.

It is important to promote right nutritional habits for student in order to help them maintain their health in later years. Organizing training programs, seminars and symposiums at regular intervals, and promoting healthy food at cafeterias, and encouraging the university student to healthier lifestyle is a practice in some countries. That can be done with national strategy polices (Bergman and Gordon, 2010; Wong and Chang, 2012; Hirschman and Chriqui, 2013; Food and Nutrition Service, 2013). Obviously, the young involved into playing sports are healthier and feel happier about life. By being involved into sports, students benefit physically, socially and mentally. Recently, the number of students organized in sports teams has been greatly increased. Our findings (45%) result to have sport activity. Data from assessment of their physical activity is showing: they are more in active 55%, than active 45%, and females are more inactive 63% than males 41%.

Table.1 Frequentation by sex and age

Age	Male 19-21	Female 19-21	Male >21	Female >21	Total
frequentation	15	27	14	19	75
%	20	36	19	25	100

Table.2 Data from BMI and sex

BMI	Female	%	Male	%	Total	%
No BMI data	7	15	6	21	13	17
<18	0	0	0	0	0	0
18-24 Normal value	29	74	12	52	41	66
24.5-30	9	23	10	43	19	31
>30	1	3	1	5	2	3
Total	39	100	23	100	62	100

Table.3 Healthy nutrition habits

Nutrition	female	%	male	%	Total	%
Milk intake						
No	12	26	5	17	17	23
>1/2 l	29	63	14	48	43	57
½ l standard	2	4	6	21	8	11
1 l	3	7	4	14	7	9
Nutrition	female	%	male	%	Total	%
Fish						
No	12	26	6	21	18	24
1 weekly	30	65	18	62	48	64
Twice weekly/standard	3	7	5	17	8	11
Three time weekly	1	2	/	/	1	1
Bean						
No	3	7	3	10.3	6	8
1 weekly/standard	27	59	12	41.4	39	52
Twice weekly	12	26	9	31	21	28
Three time weekly	4	8	5	17.3	9	12
Vegetables daily number						
No	5		2		7	9
1 -4	21		11		32	43
5-8/standard	20		13		33	44
>8	/		3		3	
Fruits						
No	13	22	11	38	24	32
Yes/standard	36	78	18	62	54	68

Table.4 Bad nutrition habits

Nutrition	female	%	male	%	Total	%
Cola drinks weekly						
No/standard	23	50	10	34	33	44
>1/2 l/standard	16	35	11	38	27	36
½ l	5	11	2	7	7	9
1 l	2	4	6	21	8	11
Fast food weekly						
No/standard	13	28	4	14	17	23
1 weekly/standard	14	30	8	27	22	29
Twice weekly	11	24	7	24	18	24
Three time weekly	5	11	8	27	13	17
Four time	3	7	2	7	5	7
Cigarettes						
No	33	72	14	48	47	63
Yes	13	28	15	52	28	37

Table.5 Weekly physical activity

Physical activity	female	%	male	%	Total	%
No	29	63	12	41	41	55
Yes/standard	17	37	17	59	34	45
2 hours	6	35	4	23	10	29
4/optimal	6	35	7	41	13	38
6	3	18	3	18	6	18
8	2	12	3	18	5	15

Table.6 The daily use of VT

Use of VT	female	%	male	%	Total	%
No	1	2	4	14	5	7
Yes	45	98	25	86	70	93
2 hours/optimal	23	51	8	32	31	44
4	12	27	7	28	19	27
6	7	15	7	28	14	20
8	3	7	3	12	6	9
Pain localization						
No	16	35	18	62	34	45
Yes	30	65	11	38	41	55
Neck	16	32	6	25	22	54
back	16	32	4	17	20	49
lumbar	9	18	5	21	14	34
Haedaic	7	14	4	17	11	27
arm	/	/	3	12	3	7
wrist	2	4	2	8	4	10

From that who are active (45%), 71% are optimal active or over. Positive point of score is 200 points, by our group is 115 points (57.5%) in middle level of physical activity.

Data of the study also indicate that there are a considerable number of those who spend the free time in front of a screen or hanging out in bar with friends. From the available literature, we found that the use of VT is monitored full conditions (Nakphet *et al.*, 2014; Brandt *et al.*, 2014; Andersen *et al.*, 2011).

The VT is using 93%, and only 44% in optimal daily use, 56% is using more over optimal, females 49%, less than males 68%. And it is significant that the use of VT is in increase. The use of VT is following with many muscles health problems, like pain, and 55% of them have it. The VT user is 93% and the highest frequentation of pain is by females' neck and back, and by males' neck, back and low back pain. They have pain with localization of spine in age of 19–25 years. They have 55%, muscles skeletal pain in early age consequent of use of VT.

Patients routinely seek physicians' guidance about diet and the relation between nutrition and the prevention and treatment of disease. The adequacy of nutrition instruction in graduate medical staff education is questionable. In the future developing strategies for medical students' education is important to have a place and nutrition and it impact of healthy life (Gramlich *et al.*, 2010).

In conclusion, this small group of students represent us some condition of young people, in our society. We are preparing them for future medical staff. During the education one of firs goals should be to educate students how exercises and nutrition can help to ill people. The second step is to

include polices for physical activity for all students at the University. Physiotherapist from third year of study six's semester can promote and lead the exercises for correction of bad posture and muscles pain.

Reference

- Andersen, L.L., Hansen, K., Mortensen, O.S., *et al.* 2011. Prevalence and anatomical location of muscle tenderness in adults with nonspecific neck/shoulder pain. *BMC Musculoskelet. Disord.*, 22(12): 169. doi: 10.1186/1471-2474-12-169.
- Bednarek-Tupikowska, G., Stachowska, B., Miazgowski, T., *et al.* 2012. Evaluation of the prevalence of metabolic obesity and normal weight among the Polish population. *Endokrynol Pol.*, 63(6): 447–55.
- Bergman, E.A., Gordon, R.W. 2010. Position of the American dietetic association: local support for nutrition integrity in schools. *J. Am. Diet Assoc.*, 110(8): 1244–54.
- Bezold, C.P., Konty, K.J., Day, S.E. 2014. The effects of changes in physical fitness on academic performance among New York City youth. *J. Adolesc. Health*, 55(6): 774–81. doi: 10.1016/j.jadohealth.2014.06.006.
- Brandt, M., Sundstrup, E., Jakobsen, M.D., *et al.* 2014. Association between neck/shoulder pain and trapezius muscle tenderness in office workers. *Pain Res. Treat.*, 2014: 352735. doi: 10.1155/2014/352735.
- Can, G., Ozdilli, K., Erol, O., *et al.* 2008. Comparison of the health-promoting lifestyles of nursing and non-nursing students in Istanbul, Turkey. *Nurs. Health Sci.*, 10: 273–280.
- Food and Nutrition Service, 2013. USDA. National school lunch program and school breakfast program: nutrition

- standards for all foods sold in school as required by the healthy, hunger-free kids act of 2010. Interim final rule. Fed Regist. 28; 78(125): 39067–120.
- Gramlich, L.M., Olstad, D.L., Nasser, R., *et al.* 2010. Medical students' perceptions of nutrition education in Canadian universities. *Appl. Physiol. Nutr. Metab.*, 35(3): 336–43. doi: 10.1139/H10-016.
- Hirschman, J., Chriqui, J.F. 2013. School food and nutrition policy, monitoring and evaluation in the USA. *Public Health Nutr.*, 16(6): 982–8. doi: 10.1017/S1368980012004144.
- Kehm, R., Davey, C.S., Nannery, M.S. 2015. The role of family and community involvement in the development and implementation of school nutrition and physical activity policy. *J. Sch. Health*, 85(2): 90–9. doi: 10.1111/josh.12231.
- Li, K., Concepcion, R.Y., Lee, H. 2012. An examination of sex differences in relation to the eating habits and nutrition intakes of university students. *J. Nutr. Educ. Behav.*, 44(3): 246–250.
- London, R.A., Castrechini, S. 2011. A longitudinal examination of the link between youth physical fitness and academic achievement. *J. Sch. Health*, 81(7): 400–8. doi: 10.1111/j.1746-1561.2011.00608.x.
- Nakphet, N., Chaikumarn, M., Janwantanakul, P. 2014. Effect of different types of rest-break interventions on neck and shoulder muscle activity, perceived discomfort and productivity in symptomatic VDU operators: a randomized controlled trial. *Int. J. Occup. Saf. Ergon.*, 20(2): 339–53.
- Placzkowska, S., Pawlik-Sobecka, L., Kokot, I., *et al.* 2014. Incidence of complex metabolic disorders among young people--preliminary report. *Pol. Merkur Lekarski*, 37(221): 269–73.
- Wong, Y., Chang, Y.J. 2012. The practices and needs of dietitian in school lunch program in Taiwan. *Asia Pac. J. Clin. Nutr.*, 21(1): 134–8.