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STUDY AND HYGIENIC EVALUATION OF INDIVIDUAL DIETARY PATTERNS OF STUDENTS OF TASHKENT STATE MEDICAL UNIVERSITY

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Abstract

The present study provides a hygienic assessment of the individual dietary patterns of 156 students enrolled at Tashkent State Medical University. The analysis included daily food intake, energy expenditure, and the consumption levels of proteins, fats, and carbohydrates compared with established nutritional standards. Seasonal factors were considered when evaluating meal frequency and distribution throughout the day. The findings revealed that the intake of several food groups does not comply with recommended physiological requirements.

Keywords: balanced diet, healthy lifestyle, meal pattern, breakfast, lunch, dinner, nutrients, physiological standards.

Introduction

ТДТУ ТАҲСИЛ ОЛАЁТГАН ТАЛАБАЛАРНИНГ ШАХСИЙ ОВҚАТЛАНИШ РАЦИОНИНИ ЎРГАНИБ, ГИГИЕНИК БАҲОЛАШ.

Абдукадилова Лола Кабуловна

Ушбу мақолада 156 нафар Тошкент давлат тиббиёт университети талабаларининг индивидуал овқатланиш ҳолати бўйича комплекс баҳолаш таҳлили ўтказилди. Тадқиқот жараёнида талабаларнинг амалдаги кунлик овқат рациони, овқатланишнинг энергетик қиймати, шунингдек асосий

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нутриентлар — оқсиллар, ёғлар ва углеводларнинг истеъмол даражаси амалдаги физиологик меъёрлар билан таққослаб баҳоланди. Мавсумий хусусиятлар ҳисобга олинган ҳолда кун давомида овқатланиш сони ва унинг тақсимланиши ўрганилди ҳамда уларга гигиеник тавсиф берилди. Тадқиқот натижалари шуни кўрсатдики, талабаларнинг сезиларли қисмида рацион тузилиши ва айрим озиқ-овқат маҳсулотларини истеъмол қилиш ҳажми тавсия этилган меъёрларга тўлиқ мос келмайди.

Калит сўзлар: рационал овқатланиш, соғлом турмуш тарзи, овқатланиш режими, нонушта, тушлик, кечки овқат, озиқ моддалар, физиологик меъёрлар.

ИЗУЧЕНИЕ И ГИГИЕНИЧЕСКАЯ ОЦЕНКА ИНДИВИДУАЛЬНОГО РАЦИОНА ПИТАНИЯ СТУДЕНТОВ, ОБУЧАЮЩИХСЯ В ТГМУ.

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РЕЗЮМЕ

В работе проведён комплексный анализ индивидуального питания 156 студентов Ташкентского государственного медицинского университета. Оценивались фактический суточный рацион, энергетическая ценность питания, а также уровень потребления основных нутриентов (белков, жиров и углеводов) в сопоставлении с действующими физиологическими нормами. С учётом сезонных особенностей была изучена кратность и распределение приёмов пищи в течение суток и дана их гигиеническая характеристика. Установлено, что структура рациона и объём потребления отдельных пищевых продуктов у значительной части студентов не соответствуют рекомендованным нормативам.

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Ключевые слова: рациональное питание, здоровый образ жизни, режим питания, завтрак, обед, ужин, пищевые вещества, физиологические нормы.

Relevance of the Topic

Irrational eating habits (irregular eating, excessive consumption of fast food and sweets, low consumption of vegetables and fruits, skipping breakfast) among students can lead to the development of various diseases. These factors have a particularly significant impact on health among medical students, who have a heavy workload.

The most many common from problems one is gastrointestinal diseases . To mode action not to do , dry and fast food the meals many consumption gastritis , duodenitis, stomach and ten two finger intestine wound , stomach hardening or stomach to leave like to the circumstances reason . Improper and high-calorie nutrition leads to excess weight and obesity. This increases the risk of developing type 2 diabetes, arterial hypertension, and cardiovascular diseases in the future. An abundance of fatty and salty foods can lead to impaired lipid metabolism.

Regularly skipping breakfast and improper distribution of meal times cause metabolic disorders, sharp changes in blood glucose levels, and reduced work capacity.

Adherence to the principles of rational nutrition among students — that is, daily ration based on physiological norms, proper distribution of food during the day (breakfast, lunch, dinner), intake of sufficient amount of protein, fat, carbohydrates, vitamins and minerals — is important for the prevention of many diseases.

The basis of rational nutrition is physiological nutritional standards. Physiological nutritional standards have been developed by nutritionists and are intended for various groups of the population. These physiological nutritional standards are offered for advisory purposes. The physiological need of the body for nutrients and energy is not a constant, that is, a fixed amount, but requires

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regular changes, since scientific innovations and changes in the lifestyle of the population require changes in these indicators.

The basis of rational nutrition is the correct organization of daily food products. Therefore, in the preparation of these regulations: information on the consumption of food products by occupational groups; the chemical composition of food products, eating skills were taken into account.

Research Objective

To compare the current daily diet of university students, the energy value of food, as well as the level of consumption of basic nutrients - proteins, fats and carbohydrates - with current physiological norms, to study the number of meals and their distribution during the day, taking into account seasonal characteristics, and to give them a hygienic description.

Research Materials and Methods

To conduct the research, based on archival materials stored at the Department of Environmental Hygiene (2023-2024; 2024-2025 academic years), 156 students (50 men and 70 women) were interviewed. A personal hunt on the topic "Inspection and assessment of the adequacy of personal nutrition". about information is provided Based on the materials of "*One-Day Meal*". student's daily ov q at ration , food intake value and practical personal hunting quality is studied It was worth it.

Research Discussion and Obtained Results

BASED on the information obtained, " Standards of average daily rational nutrition aimed at ensuring healthy nutrition for age, gender and occupational groups of the population of the Republic of Uzbekistan " (SANQ AND N 0007-20 24.12.2020) WE COMPARED IT WITH the document and obtained the following information.

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Considering that the research group we are studying is students, they fall into Group 1 of the working-age population.

Table 1, the recommended one-day rational nutrition food standards (in grams) for the 1st group of working-age population are as follows:

Table 1

Recommended one-day rational nutrition food standards for the working-age population of group 1 (in grams) one per day

	Men		Women		
	18 — 59	>60	18 — 54	Pregnant and breastfeeding	>55
Products calories	3158.5	2905.5	2764.7	3204	2595
Protein	120	112.2	108.1	123.3	102.2
Oils	120.5	109.8	109.3	127.9	103.3
Carbohydrate	606	516.7	533.7	640.5	440

The average age of the selected students is 20 years old, and they are 2nd year students of Tashkent State Medical University. Considering that the students we selected belong to group 1, based on the norms of rational nutrition, the severity of human labor and professional groups, their daily calorie intake was determined as 3158.5 for men and 2764.7 for women. The results obtained were 2900 kcal for men and 2500 kcal for women.

Proteins are the most important nutrients in the diet, as they perform a number of important biological functions in the body (plastic function in cell regeneration, energy, hormonal, catalytic, intermediary and special functions). In order to fully perform the listed functions, proteins must contain all the necessary amino acids, both essential and non-essential. Non-essential amino acids are found in animal products (meat, milk and dairy products, eggs, fish, poultry). Complete amino acids are found in significant quantities in legumes - beans, peas, soybeans, etc. Physiological norm of proteins in the daily diet is 108-120 grams per day in SanQ and M-0007. The study showed that the protein intake of the students was on

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average 90-100 grams. This indicates that it is consumed 1.3 times less than the norm.

Fats, like proteins, are essential nutrients and are a major component of nutrition. Fats have different functions in the body.

Physiological need for fats of a middle-aged person who is able to work can change depending on the gender, age and type of work, i.e. from 80 grams to 169 grams, but it is possible to find the need for each person through a separate calculation method. For this purpose, it can be calculated on the basis of the protein needs of this organism (1.2 grams of fat per 1 gram of protein).

The physiological norm of fats in the daily diet is 120.5-109.3 per day on average in SanQ and M-0007 is a gram. The study showed that the fat intake of the students was on average 130-140 g. This indicates that it is consumed 1.16 times more than the norm.

The main part of the daily diet consists of carbohydrates, which mainly serve as an energy source. In addition, carbohydrates are also involved in plastic processes, and some of their types have a specific effect (ascorbic acid, heparin, heteropolysaccharides, which determine the blood group).

The physiological norm of carbohydrates in the daily diet is 533.7-606 per day in SanQ and M-0007 is a gram. The study showed that the average carbohydrate intake of the students was 433 - 500 g. This indicates that it is consumed 1.3 times less than the norm (Table 2).

Table 2 calories of products in the daily diet

Products	Men (18–25)		Women (18–25)	
	S an K and M 0007-20	Taken results	S a n K v a N 0007-20	Taken results
Products calories	3158.5	2900	2764.7	2500
Protein	120	100	108.1	90
Oils	120.5	140	109.3	130
Carbohydrate	606	500	533.7	433

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Food should be distributed correctly throughout the day, taking into account the seasons. For example, in the cold season, breakfast should account for 30-35% of the caloric content of the diet, lunch should be 35-45%, and dinner should be 25-30%. In the hot season, it is recommended to reduce the caloric content of lunch and increase the caloric content of dinner, which should be consumed 2 hours before bedtime.

Our study of the daily diets of the students we studied showed that 25.6 percent of the daily energy expenditure was accounted for by breakfast, 30 percent by lunch, and 41.3 percent by dinner. This does not meet the standard level.

Variety and composition of food products " Standards of average daily rational nutrition aimed at ensuring healthy nutrition for age, gender and occupational groups of the population of the Republic of Uzbekistan " (S an Q and N 0007-20 24.12.2020) does not meet the requirements.

The set of foods in the daily diet should be varied, and it is recommended to include vegetables and fruits in the diet, taking into account the season.

While studying the daily diet of the students, we witnessed the following: some food products do not correspond to the amount of the product according to the demand. For example, milk and dairy products: -1.4- 2.04 times; It was found that vegetable products are 1.4-1.5 times less than the required amount.

It was found that the most consumed food in terms of composition is bakery products: the norm for bakery products is 250 grams, but in practice, 400-450 grams are consumed.

While men almost did not consume cereals (1.3 g), this figure for women was 10 g, which is 2 times less than the norm. On the contrary, it was found that the consumption of flour products (pasta) was almost 2 times more than the norm in both sexes. (50 g in the norm) A high consumption of sugar products was also observed in the diet of students - 1.3 times more than the norm.

Due to the fact that the inspection time was the winter season, we witnessed that the quantity of some products was also reduced (tomatoes, cucumbers are almost

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10 times less than the norm of soft crops, dry fruits are 2.5 times less than the norm, and dry fruits are almost 2 times less than the norm).

It was observed that meat and meat products are 2 times less than the norm, and dishes prepared from fish products are almost 19 times less than the norm.

Conclusion

According to the research conducted, the daily calorie intake of students of the TSU was 2900 kcal for men and 2500 kcal for women. It was found that the daily intake of proteins and carbohydrates was less than the physiological norm, while the consumed fats were consumed 1.16 times more. We found that 25.6% of the daily energy expenditure fell on breakfast, 30% on lunch, and 41.3% on dinner. This does not meet the norm.

The most consumed food products by composition were bread and flour products, which were consumed almost 2 times more than the norm, while milk and dairy products were consumed: -1.4-2.04 times; vegetable products were found to be 1.4-1.5 times less than the required amount. Meat and meat products were also observed to be 2 times less than the norm, and dishes made from fish products were almost 19 times less than the norm.

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