

e-ISSN:

№1(3)/2024, 27-34

УДК: 616.017.1+616,9 -084

DOI: [10.52754/16948831\\_2024\\_1\(3\)\\_4](https://doi.org/10.52754/16948831_2024_1(3)_4)

**NUTRITIONAL FEATURES OF FOREIGN STUDENTS OF MEDICAL UNIVERSITIES IN THE SOUTH OF KYRGYZSTAN**

ОСОБЕННОСТИ ПИТАНИЯ ИНОСТРАННЫХ СТУДЕНТОВ МЕДИЦИНСКИХ ВУЗОВ  
ЮГА КЫРГЫЗСТАНА

ТУШТУК КЫРГЫЗСТАНДАГЫ МЕДИЦИНАЛЫК УНИВЕРСИТЕТТЕРИНДЕ ОКУГАН  
ЧЕТ ЭЛДИК СТУДЕНТТЕРДИН ТАМАКТАНУУСУНУН ОЗГОЧОЛУКТОРУ

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## NUTRITIONAL FEATURES OF FOREIGN STUDENTS OF MEDICAL UNIVERSITIES IN THE SOUTH OF KYRGYZSTAN

### Abstract

To investigate the nutritional features of foreign students of Medical Universities in the South of Kyrgyzstan. This research also aims to provide accurate and up-to-date information on the dietary patterns and help raise awareness, promote healthy food habits for international students. This research also helps in understanding how students manage to cook/find food during their individual life far from home.

**Keywords:** modern youth, healthy lifestyle, bad habits.

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### ТУШТҮК КЫРГЫЗСТАНДАГЫ МЕДИЦИНАЛЫК УНИВЕРСИТЕТТЕРИНДЕ ОКУГАН ЧЕТ ЭЛДИК СТУДЕНТТЕРДИН ТАМАКТАНУУСУНУН ӨЗГӨЧӨЛҮКТӨРҮ

#### Аннотация

Маанилүүлүк. Түштүк Кыргызстандын медициналык университеттеринде окуган чет өлкөлүк студенттеринин тамактануу өзгөчөлүктөрү жана алардын туура тамактануу эрежелерин сактоосу изилденген. Бул изилдөө ошондой эле студенттер үйүнөн алыс жашаган студенттер жана жеке жашоосунда тамак-ашты кантип бышырып/табуу аларын түшүнүүгө жардам берет.

**Ачкыч сөздөр:** заманбап жаштар, сергек жашоо, жаман адаттар.

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### ОСОБЕННОСТИ ПИТАНИЯ ИНОСТРАННЫХ СТУДЕНТОВ МЕДИЦИНСКИХ ВУЗОВ ЮГА КЫРГЫЗСТАНА

#### Аннотация

Актуальность. Изучить особенности питания иностранных студентов медицинских вузов Юга Кыргызстана. Это исследование также направлено на предоставление точной и актуальной информации о диетических моделях и помогают повысить осведомленность, пропагандировать здоровые пищевые привычки среди международных студентов. Это исследование также помогает понять, как учащимся удается готовить/находить еду во время их индивидуальной жизни вдали от дома

**Ключевые слова:** современная молодежь, здоровый образ жизни, вредные привычки.

## **Introduction**

Good nutrition is essential to feeling your best, doing well in College, and living a healthy life. This is especially true for medical students who are juggling a demanding course load. Foreign medical students studying in Southern Kyrgyzstan face an interesting challenge: adjusting their usual way of eating to fit their new surroundings. This study aims to understand how these students from different countries are eating while attending medical school in Southern Kyrgyzstan.

We conducted a survey to gather up-to-date information about their dietary habits and access to healthy food. The survey asked students about their home country, what year they are in medical school, and how often they eat certain types of foods like fruits, vegetables, whole grains, meat, fish, and dairy products. We also wanted to know if they cook their own meals or eat out most of the time, and whether they have trouble finding healthy food options.

This study is important because it can help us identify any potential nutritional problems that foreign medical students in Southern Kyrgyzstan might be facing. By analyzing the survey results, we can pinpoint areas where students might need more support. This information can then be used to develop strategies to encourage healthy eating habits and ensure these students are getting the nutrients they need to succeed in their studies and stay healthy overall.

## **Research Methods**

To gain a comprehensive understanding of the dietary patterns and nutritional status of foreign medical students in Southern Kyrgyzstan, we employed a survey-based research approach. This section delves into the details of our methodology.

### **Survey Design and Content:**

We meticulously crafted a self-administered questionnaire specifically tailored to the target population – foreign medical students from various countries. The survey captured key information through a combination of closed-ended and open-ended questions.

### **Demographic Information:**

Basic details like country of origin and year of study were collected to understand the diversity of the student population and potential variations in dietary habits based on cultural backgrounds.

### **Dietary Habits:**

The core component of the survey focused on assessing the students' dietary intake. We included questions about the frequency of consumption of various food groups, such as fruits, vegetables, whole grains, red meat, poultry, fish, and dairy products.

### **Cooking Habits:**

To understand the students' level of control over their diet, we inquired whether they primarily cook their own meals or rely on eating out frequently.

### **Food Security:**

A crucial aspect was to assess any potential challenges students might face in accessing healthy food options. We included a question about their ease of finding healthy food to meet their needs.

#### Open-Ended Question:

To provide students with an opportunity to share additional insights, the survey concluded with an optional open-ended question. This allowed them to elaborate on any dietary concerns, cultural influences on their eating habits, or specific challenges they encountered in Southern Kyrgyzstan.

### **Research Data**

A total of 101 responses were collected from the survey and following data was obtained. Among the students 91.1% of students are from India and 7.9% of students are from Pakistan. The percentage of responses of first year students are 8.9, second year students are 57.4, third year students are 12.9, fourth year students are 14.9%, fifth and sixth year students are 2 and 4 respectively. From the responses, 66.3% of students has no diet issues but the remaining 33.7% of students had the previous diet related issues. Among the responses, students who are consuming fruits and vegetables 5 or more servings are very less. Their percentage is the lowest, only 2%. 46.5% students prefer 1-2 servings. 34.7% of students are consuming fruits and vegetables less than 1 serving. Only 8.9% students prefer 3-4 serving. The worst part is nearly 8 percent of students are not at all including fruits and vegetables in their daily diet. The students who are consuming whole grains (brown rice, whole wheat bread) per week by 5 or more servings are 16.8%. Students preferring 1-2 servings are the highest among the responses, that is around 44.6%. 5% of students never preferred to consume whole grains per week. 16.8% students consume less than 1 serving per week and the same percentage of students are preferring 3-4 servings per week. Among the responses, students who are consuming red meat per week in 5 or more servings are very less. Their percentage is the lowest, only 5.9. 23.8% students prefer 1-2 servings. Same 23.8% of students are consuming fruits and vegetables less than 1 serving. Only about 8% of students prefer 3-4 servings. Nearly 38.6% of students are not at all including red meat in their diet.

The students who are consuming poultry per week by 5 or more servings are the least, 6.9%. Students preferring 1-2 servings are the highest among the responses, that is around 49.5%. 12.9% of students never prefer to consume poultry per week. 15.8% students consume less than 1 serving per week and 14.9 percent of students are preferring 3-4 servings per week. Students who never consumed fish are the highest percentage, around 67.3. There is no response from students who consume fish 5 or more servings per week. only 4 percent of students included 3-4 servings and 8.9% students included 1-2 servings per week. Students who prefer to serve less than 1 serving per week is 19.8%. The students who are consuming dairy products per week by 5 or more servings are the least, 3%. Students preferring 1-2 servings are the highest among the responses, that is around 46.5%. 8.9% of students never preferred to consume dairy products per week. 21.8% students consume less than 1 serving per week and 19.8 percent of students are preferring 3-4 servings per week.

Students who cook most meals by themselves are 41.6% which is the highest. 21.8% of students prefer to eat out most of the time. 36.6% of students prefer a combination of both. Spicy

food lovers are 47.5% and non spicy food lovers are 5%.47.5% loves to eat a mix of both. The students who are consuming fast food per week by 5 or more servings are 5.9%.Students preferring 1-2 servings are the highest among the responses, that is around 42.6%. 4%of students never prefer to consume fast food per week.25.7%students consume less than 1 serving per week and 21.8 percent of students are preferring 3-4 servings per week. 35.6% of students have difficulty in accessing enough healthy food to meet their needs and 64.4% have no difficulty in accessing healthy food.

Among the responses 27.7% of students consider Kyrgyzstan as a place where they can find a variety of foods for their needs and 72.3% of students are not agreeing with the statement.

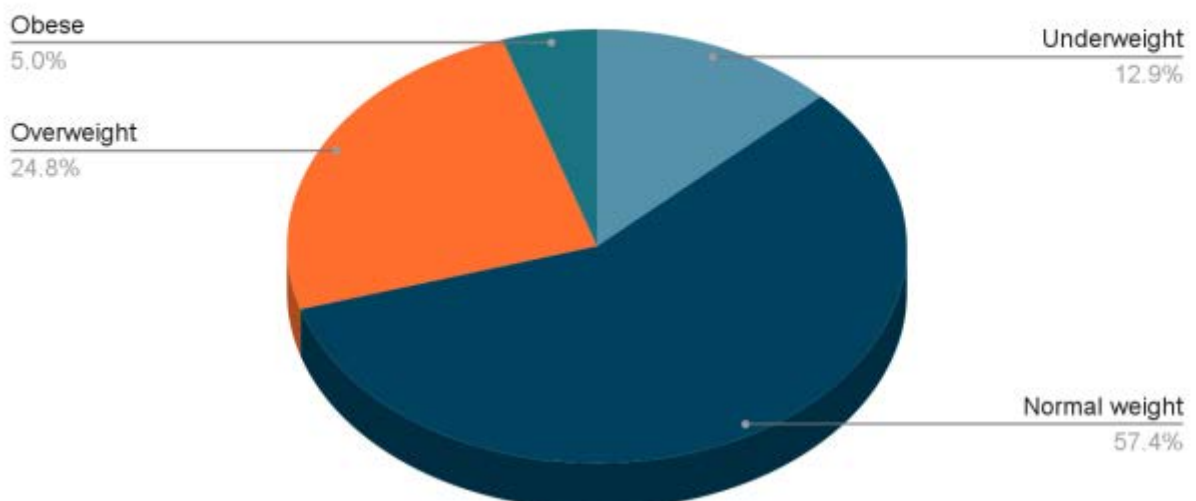
### Data Analysis

The collected data will be meticulously analyzed using appropriate statistical methods. Quantitative data, such as frequency of food consumption, will be analyzed to identify patterns and trends in the dietary habits of the student population. We will also explore any potential correlations between factors like country of origin, year of study, and dietary choices.

Thematic analysis will be employed to extract key themes and insights from the open-ended responses provided by students. This will allow us to gain a deeper understanding of any specific concerns or challenges they face regarding their diet and nutrition in Southern Kyrgyzstan.

When we calculated the BMI, it was understood that around 13 students were underweight, 58 students were in Normal weight Range, 25 students were Overweight, 4 students were Class - 1 Obese and 1 student was Class-2 Obese.

### BMI of students



According to the survey 66.3%of students haven't had any diet related issues. only 33.7% of students have. The BMI reveals that around 57.4 percent of students are under the normal weight category. 12.8% students are in the underweight BMI category and 24.7 % are in the overweight category .Around 4 percent class 1 obese and 1 percent class-2 obese. But from the survey , 66.3% students did not have any diet related issues previously. From this we can

summarize that around 8.9 % students have changed to an improper diet or their healthy food habits have changed which has led to some diet related issues over the time

Other findings show that Indian culture has a tradition of eating spicy food. Around 47.5 percent of students purely spicy food and another 47.5 percent like a mix of both spicy and non-spicy food. Over time this can lead to stomach ulcers and peptic ulcers. Other similar findings show the food habits of these students:

- ❖ They depend on eating outside
- ❖ Rely less on fibrous food like vegetables and fruits
- ❖ Consuming more red meat
- ❖ eating very less fish

Points like eating more red meat and eating less fish are mainly due to the effects of the country's Geography and culture. Mainly the people consume red meat in the country and due to lack of big water bodies in the country fish is not available easily for the students.

The survey reveals the truth that around 96 percent of students are eating fast food per week in a month . The percentage of students who eat out most and prefer to cook by themselves and eat out combines 58.4 .So in conclusion around 37.6 percentage of students are eating fast foods on a daily basis.

### **Summarisation and Results**

This study investigated the dietary patterns of foreign medical students studying in Southern Kyrgyzstan. We surveyed 101 students, primarily from India (91.1%) and Pakistan (7.9%), across various academic years.

#### **Key Findings:**

\* **Diet Quality:** A significant concern emerged – a large portion of students (46.5% for fruits/vegetables, 38.6% for red meat) consume less than the recommended servings of fruits, vegetables, and whole grains. This suggests a potential deficiency in essential vitamins, minerals, and fiber.

\* **Cooking Habits:** While 41.6% cook most meals themselves, a substantial number (21.8%) rely heavily on eating out, which often presents challenges in controlling food choices and portion sizes.

\* **Cultural Influences:** Spicy food preferences were prevalent (47.5% prefer strictly spicy or a mix), potentially linked to their cultural background. However, this can raise long-term digestive concerns like ulcers.

\* **Access to Healthy Food:** While 64.4% reported no difficulty in finding healthy options, 35.6% did struggle. This might be due to factors like limited availability or affordability of certain essential food groups.

\* **Body Mass Index (BMI):** The BMI analysis revealed a concerning trend. While 66.3% reported no prior diet issues, a significant portion (57.4%) fell outside the normal weight range.

There were 12.8% students in the underweight category, 24.7% overweight, 4% Class-1 obese, and 1% Class-2 obese. This suggests potential malnutrition or unhealthy weight gain patterns.

### **Possible Explanations for Unhealthy Habits:**

\* **Transition Challenges:** Adapting to a new environment with different food options can be difficult, leading students to compromise on dietary choices.

\* **Limited Awareness:** Students might lack knowledge about healthy eating habits or where to find nutritious options within their budget.

\* **Time Constraints:** The demanding academic schedule might leave students with limited time for cooking healthy meals. Overall, this study highlights the need for targeted interventions to promote healthy eating habits among foreign medical students in Southern Kyrgyzstan. Here are some recommendations:

\* **Nutritional workshops:** Educate students about healthy food choices, portion control, and planning balanced meals.

\* **Cultural sensitivity:** Develop workshops that consider students' cultural backgrounds and preferences.

\* **Collaboration with restaurants:** Encourage restaurants near university areas to offer healthy meal options at student-friendly prices.

\* **Community support groups:** Create support groups where students can share experiences, find healthy recipes, and motivate each other.

By implementing these strategies, we can empower students to make informed dietary choices, improve their overall health and well-being, and ensure they have the energy and focus to succeed in their medical studies.

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