

**ФУНДАМЕНТАЛ ВА
КЛИНИК ТИББИЁТ
АХБОРОТНОМАСИ**

***BULLETIN OF* FUNDAMENTAL
AND CLINIC MEDICINE**

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КЛИНИЧЕСКОЙ МЕДИЦИНЫ**

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Адрес редакции:

Республика Узбекистан, 200100, г.
Бухара, ул. Гиждуванская, 23.

Телефон (99865) 223-00-50

Факс (99866) 223-00-50

Сайт <https://bsmi.uz/journals/fundamental-ya-klinik-tibbiyot-ahborotnomasi/>

e-mail baymuradovravshan@gmail.com

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ANALYSIS OF BODY MASS INDEX INDICATORS AND DIETARY HABITS AMONG FEMALE STUDENTS OF MEDICAL COLLEGE

Sa'dullayeva M.N., Baratova M.S.

Bukhara State Medical Institute named after Abu Ali ibn Sino, Bukhara, Uzbekistan

Resume. This article analyzes the body mass index (BMI) indicators and dietary habits of female students at a medical college. The study involved 164 female students. According to the research results, overweight was identified in 27% of the respondents. The article analyzes the problems identified among students and outlines practical recommendations for their mitigation.

Keywords: students, body mass index (BMI), healthy lifestyle, alimentary factors, obesity prevention, mid-level medical personnel.

ТИББИЁТ КОЛЛЕЖИ ТАЛАБАЛАРИ ОРАСИДА ТАНА МАССАСИ ИНДЕКСИ ВА ОВҚАТЛАНИШ ОДАТЛАРИНИНГ ТАҲЛИЛИ

Саъдуллаева М.Н., Баратова М.С.

Абу Али ибн Сино номидаги Бухоро давлат тиббиёт институти, Бухоро ш., Ўзбекистон

Резюме. Ушбу мақолада тиббиёт коллежи талабаларининг тана массаси индекси (ТМИ) ва овқатланиш одатлари таҳлил қилинади. Тадқиқотда 164 нафар талаба иштирок этди. Натижалар шуни кўрсатдики, респондентларнинг 27 фоизи ортиқча вазнга эга. Мақолада талабалар ўртасида аниқланган муаммолар таҳлил қилинади ва уларни бартараф этиш бўйича амалий тавсиялар берилади.

Калит сўзлар: талаба қизлар, тана массаси индекси (ТМИ), соғлом турмуш тарзи, овқатланиш омиллари, семир-шининг олдини олиш, ўрта даражадаги тиббиёт ходимлари.

АНАЛИЗ ПОКАЗАТЕЛЕЙ ИНДЕКСА МАССЫ ТЕЛА И ПИЩЕВЫХ ПРИВЫЧЕК СРЕДИ СТУДЕНТОК МЕДИЦИНСКОГО КОЛЛЕДЖА

Саъдуллаева М.Н., Баратова М.С.

Бухарский государственный медицинский институт имени Абу Али ибн Сино, г. Бухара, Узбекистан

Резюме. В данной статье анализируются показатели индекса массы тела (ИМТ) и пищевые привычки студенток медицинского колледжа. В исследовании приняли участие 164 студентки. По результатам исследования, избыточный вес был выявлен у 27% респонденток. В статье анализируются выявленные среди студенток проблемы и излагаются практические рекомендации по их смягчению.

Ключевые слова: студентки, индекс массы тела (ИМТ), здоровый образ жизни, пищевые факторы, профилактика ожирения, медицинский персонал среднего звена.

e-mail: marjonasadullayeva61@gmail.com

Introduction. A fundamental priority within contemporary clinical science involves the strategic maintenance and improvement of the physiological well-being of youth, with a specific focus on those entering the medical workforce [1]. Global health statistics provided by the WHO indicate that over half of an individual's well-being is determined by their daily habits, with balanced dietary intake and consistent physical exertion being the primary factors[2]. Disorganized caloric consumption and a lack of dietary monitoring serve as primary catalysts in the progression of nutritional-related weight gain[7].

The student years can negatively impact dietary regimens due to high intellectual workloads, constant stress, and time constraints. These conditions often lead to deviations from normal body weight—either alimentary obesity or weight deficiency. As medical college students are future mid-level healthcare providers who will promote a healthy lifestyle, their own nutritional culture is of particular importance. Consequently, controlling alimentary obesity is the most effective way to reduce global mortality rates [4].

Material and methods of research. To identify issues related to a healthy lifestyle among female students of the medical college, a specialized social survey (questionnaire) was conducted between 2025 and 2026, involving 164 respondents. The survey questions focused on studying the students' daily dietary patterns, physical activity, and subjective body weight indicators. To determine the presence of overweight or

obesity, the Body Mass Index (BMI) was calculated. The methodology involved dividing the weight of each female student by her height squared (kg/m^2), following the standard WHO diagnostic criteria.

Results and discussion. According to the results, more than half of the respondents (52%) have a normal body weight. However, despite their medical education, every third female student (31%) was found to have a body weight above the norm (combined obesity and overweight). Additionally, weight deficiency (underweight) was observed in 17% of the students (Table 1).

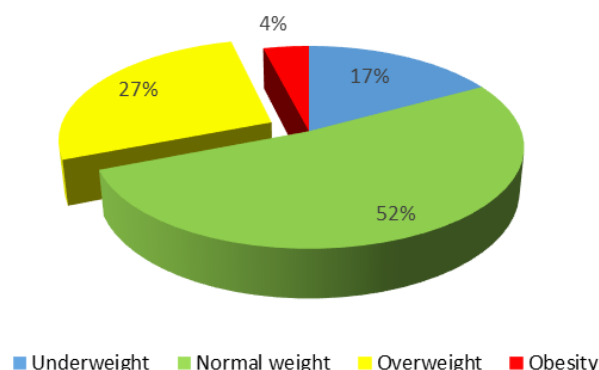


Fig. 1. Body Mass Index

The study revealed concerning trends regarding the dietary habits of medical students across different weight categories. Surprisingly, more than half (52%) of students with a normal body mass index (BMI) reported skipping breakfast. This indicates that a majority of students in the "Normal Weight" category are neglecting the most fundamental rule of healthy nutrition. Such habits can lead to a slowed metabolism and significantly increase the risk of weight gain in the long term.

Our data demonstrated a statistically significant link, suggesting that frequent fast-food intake is closely associated with an increase in body mass indices among the participants. Fast-food consumption was most prevalent in the "Overweight + Obesity" group, with 38% of these students consuming it frequently. This figure is notably higher than those in the "Normal Weight" (36%) and "Underweight" (26%) groups. Interestingly, the high prevalence of fast-food consumption among normal-weight students (36%) suggests that this group is also at high risk for future metabolic complications.

On the other hand, the consumption of fruit was highest among the "Normal Weight" group (49%). This suggests that regular fruit intake plays a protective role and helps in maintaining a healthy body weight (Table 2).

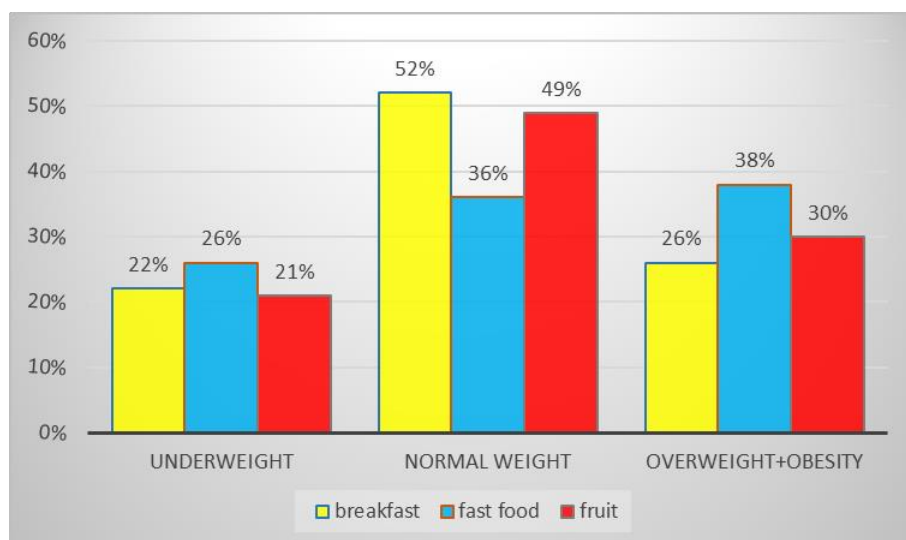


Fig. 2.

These findings align with the research by Sutherland (2025), which emphasizes that medical staff and educators in academic institutions are not paying sufficient attention to obesity and eating behaviors. This lack of intervention increases the risk of more severe health complications in the future [8].

Scientific evidence suggests a progressive decline in physical exertion as individuals grow older, a trend further exacerbated by the pervasive integration of digital technologies into daily routines[9]. One of

the most contradictory and noteworthy findings in the data concerns physical exercise. Surprisingly, 57% of individuals in the "Overweight and Obesity" group reported engaging in physical exercise, which is more than double the rate of the "Normal Weight" group (27%).

While hypodynamia (57%) and water deficiency (43%) remain the primary issues for the overweight group, students with a normal weight exhibit a high prevalence of "digital distraction" (48%)—the habit of using a phone while eating. This habit creates a foundation for unconscious overeating and metabolic disturbances in the future.

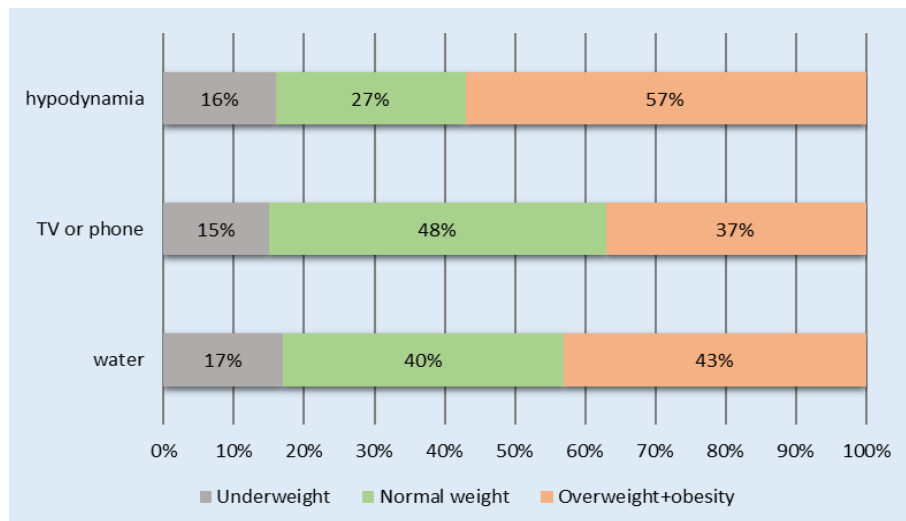


Fig. 3.

These findings resonate with a study conducted in Romania, which identified the lack of physical activity, prolonged screen time, and short sleep duration as the primary factors contributing to obesity among students [6].

The most unexpected results of the study were revealed in the analysis of sleep patterns and stress levels. The data shows that high stress levels remain nearly identical and significantly elevated in both the "Normal Weight" (44%) and "Overweight" (41%) groups (Table 4). The stressors inherent in contemporary living and mental tension exert a significant impact on health, manifesting across all population groups irrespective of their specific metabolic profiles.

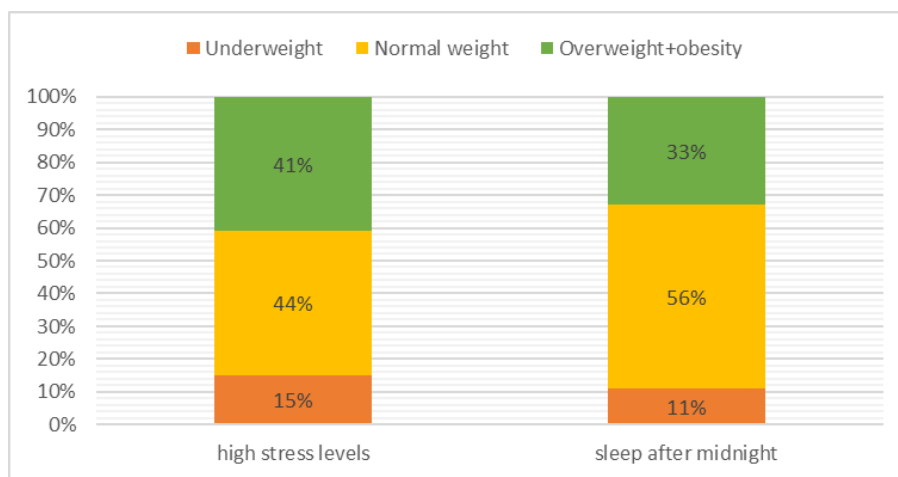


Fig. 4.

The most alarming indicator was recorded among respondents with normal body weight: 56% of them go to sleep after midnight. This figure is considerably higher than that of the overweight group (33%). This trend suggests that individuals with a normal BMI may over-rely on their body's "reserve capacities," leading them to neglect biological rhythms more frequently than their peers.

It is scientifically established that sleeping less than 6 hours per day is one of the strongest factors contributing to weight gain (AOR = 5.68), as it disrupts the hormonal balance governing appetite and energy expenditure [3].

Conclusion. The results of the survey conducted among female students of the Bukhara Medical College lead to the following conclusions:

Lifestyle Paradox: Despite their roles as future healthcare professionals, a significant portion of students (57%) do not engage in any physical exercise, and 56% regularly disrupt their circadian rhythms (sleep-wake cycles).

Digital Distraction: The habit of using smartphones during meals (48%) was identified as a primary risk factor for future weight gain, even among students currently maintaining a normal BMI. This behavior leads to "mindless eating" and a delayed feeling of satiety.

Multifactorial Nature of Obesity: Cases of overweight and obesity among students are not merely the result of a poor diet; they are the complex consequence of chronic stress, sleep deprivation, and hypodynamia (physical inactivity).

In conclusion, it is essential to foster healthy lifestyle habits among future mid-level medical personnel—not just as theoretical knowledge, but as fundamental practical skills. This transformation is vital not only for preserving their personal health but also for ensuring they serve as credible, exemplary role models for the public in their future professional clinical practice.

Practical Recommendations. Based on the research findings, the following recommendations are proposed to improve the health and well-being of the students: - **Digital Health Monitoring:** Implement a mobile application or digital platform where students can input their height and weight to automatically calculate their BMI. This is the fastest, most effective, and most convenient method for identifying high-risk groups; - **Nutritional Oversight:** School nurses should actively supervise and implement a healthy nutrition menu within college cafeterias to ensure balanced meal options; - **Physical Activity Promotion:** Organize "10,000 Steps Toward a Healthy Life" campaigns, incorporate "wellness breaks" between classes, and establish extracurricular sports clubs; - **Sleep Hygiene Education:** Conduct awareness sessions emphasizing the importance of maintaining 7–9 hours of sleep per night and the physiological benefits of going to bed before 23:00; - **Stress Management:** Develop students' skills to manage stress through breathing exercises and physical activity rather than emotional eating; - **Digital Hygiene:** Promote a culture of "digital hygiene," specifically encouraging students to avoid smartphone use during meals to prevent mindless overeating; - **Nurse-Led Training:** Medical nurses should conduct specialized training on Healthy Lifestyle (HLS) principles [5]. Research in the USA has shown that school nurses are significantly more effective and active in screening student health compared to other specialists [8].

References:

1. Decree of the President of the Republic of Uzbekistan. (2020). On measures for the wide implementation of a healthy lifestyle and the further development of mass sports. Decree No. PF-6099, dated October 30, 2020.
2. World Health Organization (WHO). (2024). Obesity and overweight: Fact sheet. [Online]. Available at: <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>
3. Abeje, E. D., et al. (2024). Dietary Habits and Determinants of Overnutrition Among Secondary and Preparatory School Adolescents: A Multi-Center Unmatched Case-Control Study. *American Journal of Lifestyle Medicine*.
4. GBD 2023 Cardiovascular Diseases and Risks Collaborators. (2025). Global, Regional, and National Burden of Cardiovascular Diseases and Risk Factors in 204 Countries and Territories, 1990–2023. *Journal of the American College of Cardiology*. DOI: 10.1016/j.jacc.2024.10.001.
5. Ling, J., et al. (2021). Relationships among perceived stress, emotional eating, and dietary intake in college students: Eating self-regulation as a mediator. *Appetite*, 163.
6. Negrea, M. O., et al. (2024). Assessing Lifestyle Patterns and Their Influence on Weight Status in Students from a High School in Sibiu, Romania: An Adaptation of ISCOLE Questionnaires and the Child Feeding Questionnaire. *Nutrients*, 16.
7. Lin, K. C., et al. (2021). Severity of Binge Eating Behavior among Overweight College Students in Taiwan and Associated Factors. *Pub-Med/Healthcare*.
8. Sutherland, M. A., et al. (2025). Health screenings in college health centers: Variations in practice. *Journal of American College Health*. Vol. 73, Issue 8. DOI: 10.1080/07448481.2025.2100000.
9. Thomas, U. M., et al. (2021). Prevalence of overweight and obesity among school children in Mysuru, Karnataka. *Journal of Family Medicine and Primary Care*, 10(8).

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