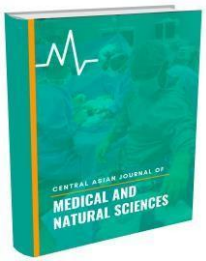

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Article

The Influence of Lifestyle on Morbidity Indicators Among Medical University Students

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Abstract: Maintaining health and promoting a healthy lifestyle at a young age serve as a vital foundation for future professional development, long-term active longevity, family formation, and participation in public life. In the context of healthcare modernization and the implementation of national strategies such as "Health" and "Education," preserving the health of university students gains particular importance. Among students of medical universities, a high level of morbidity is observed, which is associated with intensive academic demands, emotional overload, irregular nutrition, and limited time for recovery. The present study aims to identify the specific features of morbidity among medical students, determine key diseases and risk factors, and justify directions for prevention and health promotion in this population.

Keywords: Morbidity, Healthy Lifestyle, Students, Medical University, Irregular Nutrition, Adverse Conditions.

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1. Introduction

Students represent one of the vulnerable groups of young people exposed to numerous risk factors, particularly those related to lifestyle. Psycho-emotional stress, uncertainty about the future, and the need to adapt to new living conditions and intensive academic workloads can lead to health disorders. These changes are often accompanied by physical inactivity, irregular nutrition, and decreased interest in physical activity, making student health an important subject of research [1].

The period of university education coincides with a crucial stage of physiological and social development. It is during this time that stable behavioral patterns are formed, including attitudes toward personal health. Against this background, health indicators may change significantly, requiring increased attention from both educators and healthcare professionals.

According to the State Statistics Committee of Uzbekistan (December 2023), young people under 30 years of age constitute about 60% of the population (over 19 million people). However, only 36% adhere to the principles of a healthy lifestyle. Approximately 50% of males and 35% of females aged 14–30 regularly engage in physical activity, highlighting the importance of preventive measures at the student stage of development [2].

The morbidity rate reflects the overall health status and allows assessment of the prevalence of various pathologies within a specific population group over a defined period. In the case of medical students, it serves as an indicator of the impact of the educational environment and lifestyle on youth health [3].

Medical students represent a specific socio-professional group exposed to particular stressors. The educational process is characterized by high theoretical and practical intensity, long study hours, and strict time constraints. This creates persistent psycho-emotional stress, especially during examination periods and clinical training [4].

Additional negative factors include irregular nutrition, sleep disturbances, physical inactivity, and constant use of electronic devices, all of which reduce the body's resistance and increase susceptibility to infections. Factors influencing morbidity include both internal (heredity, immune status, presence of chronic diseases) and external (social environment, living conditions, stress, harmful habits, epidemiological situation) [5]. A specific role is played by occupational infection risks, as students come into contact with clinical environments and potentially hazardous biological materials from early years of study [6]. The most common diseases among students include respiratory diseases, gastrointestinal disorders, cardiovascular conditions, musculoskeletal problems, and psychosomatic disorders caused by emotional stress. High morbidity negatively affects not only quality of life but also academic performance, adaptation, and future professional competence. The proposed concept is based on the biopsychosocial model of health, according to which health is the result of interaction between biological, behavioral, and social factors. Within this framework, special attention is given to prevention: regular medical check-ups, vaccination, balanced nutrition, avoidance of harmful habits, and maintenance of physical activity [7]. Stress reduction measures, including psychological support, are also essential. Thus, analyzing morbidity among medical students requires a comprehensive approach that considers both objective medical data and behavioral characteristics, allowing not only identification of vulnerabilities but also development of effective health promotion programs [8].

2. Materials and Methods

A cross-sectional study design was used to assess morbidity and disease prevalence among medical university students at the time of examination. The study included students from the 1st to 6th years of the medical, pediatric, dental, and preventive medicine faculties of Andijan State Medical Institute during the 2024–2025 academic year.

The sample consisted of 300 students aged 17 to 25 years. Random sampling was applied to ensure representativeness by gender, age, and year of study.

Data collection was conducted using a structured questionnaire covering previous illnesses, lifestyle, physical activity, nutrition, harmful habits, sleep, and academic workload. Medical records from the student clinic were also analyzed.

Standardized scales were used to assess subjective health status and stress levels. Routine medical examinations were conducted with the participation of institute specialists. Statistical analysis included frequency distributions, mean values, and correlation analysis to identify relationships between lifestyle factors and morbidity levels. The study complied with ethical standards: participation was voluntary, students were informed about the study's purpose and confidentiality, and written consent was obtained.

3. Results and Discussion

The results confirm that morbidity among medical students remains high, especially in the early years. Students in years 1–3 were more likely to seek medical care compared to senior students [9].

Table 1. Morbidity Level by Year of Study [10].

Student Category	Morbidity Level (%)	Main Causes
Years 1–3	65%	Stress, fatigue, physical inactivity, irregular nutrition
Years 4–6	40%	Adaptation, established routine, reduced anxiety

The most common diseases were:

- Respiratory diseases (acute respiratory infections, bronchitis) — 35% [11];
- Gastrointestinal diseases (gastritis, dyspepsia) — 25%;
- Cardiovascular disorders (vegetative dysfunctions) — 15% [12];
- Genitourinary diseases — 10%;
- Visual impairments and musculoskeletal disorders — 5–10% [13].

Table 2. Prevalence of Diseases [14].

Disease Category	Frequency (%)	Main Risk Factors
Respiratory	35	Hypothermia, stress, infection exposure
Digestive	25	Irregular meals, fast food, stress
Cardiovascular	15	Physical inactivity, harmful habits
Genitourinary	10	Poor hygiene, reduced immunity
Visual	10	Gadget use, prolonged eye strain
Musculoskeletal	5	Sedentary lifestyle, poor posture

Lifestyle factors showed a direct impact on health. Smoking (18.4%) and excessive use of digital devices (66%) were associated with increased anxiety, sleep disturbances, and higher clinic visits [15].

Table 3. Lifestyle Factors and Health Impact [14].

Factor	Prevalence (%)	Health Impact
Smoking	18.4	Increased risk of respiratory and cardiovascular diseases
Digital dependency	66	Sleep disorders, fatigue, burnout
Physical activity	44.6	Prevention of obesity and cardiovascular diseases
Poor diet	60	Increased risk of gastrointestinal diseases

The study confirms a high prevalence of diseases among medical students, mainly affecting the respiratory, digestive, cardiovascular, and musculoskeletal systems. These findings are consistent with studies conducted in universities in Russia, Kazakhstan, and Kyrgyzstan [16]. Lifestyle remains a key determinant of student health. Psycho-emotional overload, lack of routine, poor nutrition, inactivity, and harmful habits contribute to both acute and chronic conditions [17].

Interestingly, even though medical students possess knowledge about disease prevention, their actual behavior often does not align with healthy lifestyle principles.

Living conditions also play a significant role. Students living in dormitories or rented housing experience higher morbidity compared to those living with families [18].

Health status also affects academic performance: frequent illness leads to missed classes, reduced concentration, and decreased motivation, creating a negative cycle [19].

A comprehensive preventive approach is necessary, including regular medical check-ups, health education, physical activity promotion, and psychological support. Universities also play a crucial role in creating favorable learning and living conditions [20].

4. Conclusion

The study confirms that morbidity among medical students is influenced by a complex set of factors, including academic workload, lifestyle, living conditions, and psycho-emotional stress.

The most common diseases involve the respiratory, digestive, and cardiovascular systems, as well as psychosomatic disorders. A direct relationship was established between unhealthy daily routines, physical inactivity, poor nutrition, and increased morbidity. Living conditions and social support also significantly influence student health.

To improve the situation, a comprehensive prevention system is required, including:

- Regular medical examinations;
- Health education programs;
- Psychological support initiatives;
- Development of sports infrastructure at universities.

These measures will help reduce morbidity, improve quality of life, and enhance students' academic performance and motivation.

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