AMERICAN JOURNALS
Open Access, Peer Reviewed Journals

American Journal of Research in Humanities and Social Sciences
ISSN (E): 2832-8019 Volume 34, | March - 2025

INFLUENCE OF AIR POLLUTION IN UZBEKISTAN ON THE WELL-BEING OF TMA STUDENTS

Yuldasheva F. U.
Sherkuzieva G. F.
Tashkent Medical Academy

ABSTRACT

This article examines the impact of air pollution in Uzbekistan on the health of students at the Tashkent Medical Institute. Due to the increasing level of air pollution in large cities, especially in Tashkent, the risk of various diseases among young people, including respiratory, cardiovascular and allergic disorders, increases. The article analyzes existing research on this issue, as well as the results of a survey of TMA students regarding their well-being in polluted air. Recommendations for improving the situation at the level of government and educational institutions are included.

KEYWORDS

Air pollution, ecology, students' health, respiratory diseases, cardiovascular diseases, environmental safety, air quality.

Introduction

Air pollution is one of the main environmental problems in Uzbekistan. Rapid industrial development, growth of motor transport and intensive use of agricultural chemicals are becoming the main sources of pollutants. The negative effects of air pollution are especially felt by young people, including students, who spend a significant part of their time in classes, dormitories and on the streets of the city. The impact of polluted air on the health of students of the Tashkent Medical Academy (TMA), as future health professionals, is important both in terms of disease prevention and for the formation of general awareness of environmental risks.

Tashkent is the largest city and capital of Uzbekistan, which faces serious environmental problems, including air pollution. The main pollutants are emissions from vehicles, industrial enterprises, as well as dust and substances related to agriculture. Given that medical students should be an example for future medical professionals, it is important to analyze how air pollution affects their health, especially for students like those at the Tashkent Medical Institute.

The main air pollutants in Uzbekistan

1. **Motor transport**Tashkent, like other large cities, suffers from a large number of cars, mostly old models, which are the main sources of carbon monoxide emissions, nitrogen dioxide and other pollutants.

2. **Industrial emissions**The large number of manufacturing plants, including chemical and metallurgical plants, also contributes to poor air quality.

3. **Dust and agricultural emissions**During seasonal agricultural work, especially during the harvest period, dust and organic matter are released into the atmosphere, which further worsens the situation.

The Impact of Air Pollution on Students' Health

Air pollution can cause a number of diseases in students.

Respiratory diseases. Frequent colds, bronchitis, asthmatic diseases become more common in polluted atmospheres. Medical students are exposed to polluted air, which can aggravate chronic respiratory diseases.

1. **Allergic reactions** Polluted air is a strong allergen, which leads to an increase in cases of allergic rhinitis, conjunctivitis and other allergic diseases among students.

2. **Cardiovascular diseases** Air pollution is associated with an increased risk of cardiovascular disease, as toxic substances entering the body affect the circulatory system and can contribute to the development of hypertension and coronary heart disease.

3. **General deterioration of health** Fatigue, headaches, decreased concentration are symptoms associated with exposure to polluted air that can significantly impair students' academic performance.

Methodology

To assess the impact of air pollution on the health of TMA students, a survey was conducted among 300 students of different years. The survey included questions on the frequency of respiratory diseases, the presence of allergies, and general well-being in polluted air conditions. The data was collected over 3 months, taking into account seasonal changes in air quality.

Results

During a survey conducted among 300 students of the Tashkent Medical Academy, various diseases associated with the state of atmospheric air were identified.

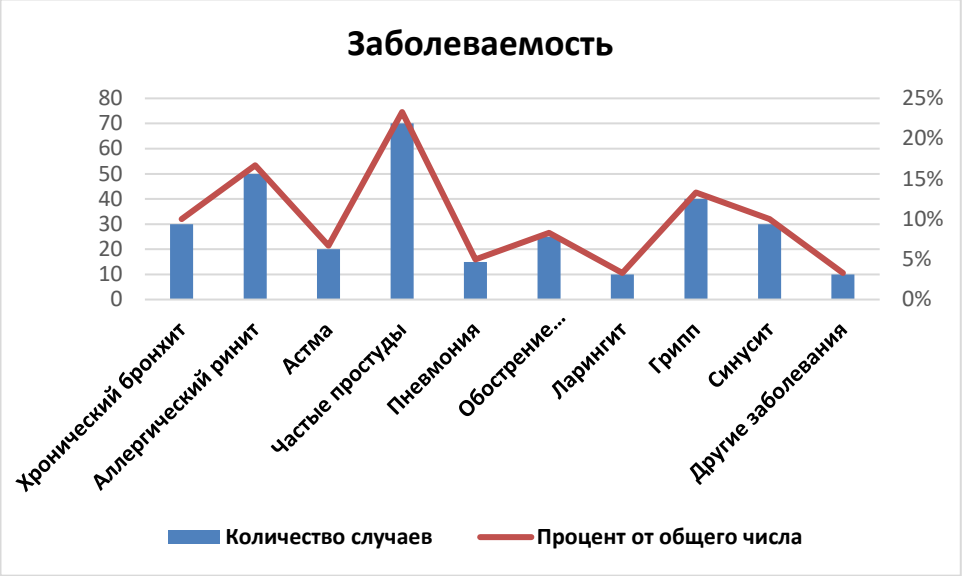
The main results are presented as follows:

1. Frequent colds: 70 students (23.3%) reported suffering from frequent colds. This may indicate a high level of infections associated with poor air conditions and a generally weakened immune system.
2. Allergic rhinitis: 50 students (16.7%) reported having allergic rhinitis, which may be related to allergens and pollutants in the air.
3. Flu: 40 students (13.3%) reported that they often get the flu, which may also be related to air quality and the level of infectious diseases.
4. Chronic bronchitis: 30 students (10%) reported having chronic bronchitis, indicating long-term exposure to pollutants on the respiratory system.
5. Sinusitis: 30 students (10%) suffer from sinusitis, which may be related to allergies and infections made worse by air pollution.

6. Exacerbation of chronic diseases: 25 students (8.3%) noted that they experience exacerbations of chronic diseases, which may also be associated with deteriorating air quality.
7. Asthma: 20 students (6.7%) were diagnosed with asthma, which indicates serious breathing problems.
8. Pneumonia: 15 students (5%) reported having pneumonia, which may indicate the impact of pollutants on the lungs.
9. Laryngitis: 10 students (3.3%) reported having laryngitis, which may also be related to poor environmental conditions.
10. Other diseases: 10 students (3.3%) reported having other diseases that could be related to air pollution.

Table

Disease	**Number of cases**	**Percentage of total**
Chronic bronchitis	30	10%
Allergic rhinitis	50	16.7%
Asthma	20	6.7%
Frequent colds	70	23.3%
Pneumonia	15	5%
Exacerbation of chronic diseases	25	8.3%
Laryngitis	10	3.3%
Flu	40	13.3%
Sinusitis	30	10%
Other diseases	10	3.3%
Total	**300**	**100%**



Recommendations

1. **Improving air quality**Increasing green areas in Tashkent, improving transport infrastructure and switching to cleaner energy sources are expected to help improve air pollution.

2. **Information and prevention**Preventive measures are needed for students, such as lectures on ecology and health issues, as well as regular medical examinations for early diagnosis of diseases.

3. **Measures to reduce air pollution**It is important to develop air quality monitoring systems, improve state environmental policy and attract international organizations to support environmental initiatives.

Conclusion

Air pollution in Uzbekistan has a significant impact on the health of students at the Tashkent Medical Institute. Improving air quality and raising awareness among young people about environmental risks can reduce the burden on the health of future professionals and improve the overall health picture in the country.

References

1. Burnashova, V.A., & Ivanov, P.N. (2020). Environmental issues and their impact on human health. Tashkent: Scientific thought.
2. Uzbekistan. (2021). Ecological state of the atmosphere: problems and solutions. Ecological journal of Uzbekistan, 12(4), 78-85.
3. Kasymov, Sh. T. (2019). Air Pollution and Its Impact on Health: Monitoring and Prevention Methods. Tashkent: Institute of Ecology.
4. World Health Organization. (2018). Air pollution and its impact on human health. Geneva.
5. Yuldasheva F.U. & Karimbaev, Sh. Improving the objectivity of assessing the quality of students' knowledge. 2014.
6. Yuldasheva F.U. Risk factors for the development of malignant neoplasms in children. Collection of scientific papers of the Republican scientific and practical conference “Preventive medicine:

Hygienic science and practice" Tashkent.2015; 87-89.
7. Yuldasheva F.U., Impact of COVID-19 on the education system in the world and in Uzbekistan. In Education: past, present and future. 2020; 94-95).
8. Yuldasheva, F. U., & Imamova, A. O. The role of sport in the formation of a healthy lifestyle among young people. European International Journal of Interdisciplinary Research and Management Studies. 2022; 2(11): 85-89.
9. Salomova, F. I., Ahmadalieva, N. O., Sadullaeva, K. A., Sherkuzieva, G. F., Yarmukhamedova, N. F., & Nurmatov, B. Q. (2022). Dust storm and atmosphere air pollution in Uzbekistan. Central Asian Journal of Medicine, (2), 36-51.
10. Шеркузиева, Г. Ф., Хегай, Л. Н., Самигова, Н. Р., Азизова, Ф. Л., & Курбанова, Ш. И. (2020). Результаты изучения острой токсичности пищевойсмеси" Мелла Круассан. Журнал//Вестник,(1), 188-189.
11. Шеркузиева, Г. Ф., Саломова, Ф. И., & Юлдашева, Ф. У. (2023). Результаты санитарно-химических исследований воды.
12. Kobiljonova, S., Sultonov, E., Sultonova, D., Oblokulov, A., & Jalolov, N. (2023). CLINICAL MANIFESTATIONS OF GASTROINTESTINAL FOOD ALLERGY. Евразийский журнал медицинских и естественных наук, 3(5), 142-148.
13. Jalolov, N. N., Sobirov, O. G., Kabilzhonova, S. R., & Imamova, A. O. (2023). The role of a healthy lifestyle in the prevention of myocardial infarction. Neo Sci Peer Rev J, 9, 8-14.
14. Ya, Z. S., Jalolov, N. N., Kh, P. M., & Rakhimov, B. B. (2023). Features of diet therapy for chronic liver diseases. Science Promotion, 1(2), 5-7.
15. Шеркузиева, Г. Ф., Данаев, Б. Ф., Жураева, Н. Т., & Сайфутдинова, З. А. (2016). Гигиеническая оценка санитарного состояния реки Сурхан. Молодой ученый, (1), 104-107. Sherkuzieva, G. F., Turakhonova, F. M., & Mustanov, J. A. (2017). Results of laboratory research of the quality of drinking water.
16. Шеркузиева, Г. Ф., & Касимова, Х. Т. (2017). Токсичность биологически активной добавки" Laktonorm-H (K Kaliy)" в условиях хронического эксперимента. Молодой ученый, (1-2), 10-12.
17. Саломова, Ф. И. (2010). Гигиенические основы профилактики нарушений осанки и начальных форм сколиозов у детей и подростков. Автореф. дисс….. докт. мед. наук. Ташкент.
18. Salomova, F. I., Mirrakhimova, M. K., & Kobilzhonova, S. R. (2022). Influence of environmental factors on the development of atopic dermatitis in children. In European journal of science archives conferences series.
19. Rahimov, B. B., Salomova, F. I., Jalolov, N. N., Sultonov, E. Y., & Obloqulov, A. G. (2023). O 'ZBEKISTON RESPUBLIKASI NAVOIY SHAHRI HAVO SIFATINI BAHOLASH: MUAMMOLAR VA YECHIM YOLLARI.
20. Рахимов, Б. Б., Саломова, Ф. И., Жалолов, Н. Н., Султонов, Э. Ю., & Облакулов, А. Г. (2023). Оценка качества атмосферного воздуха в городе навои, республика Узбекистан: проблемы и решения. In Сборник трудов по материалам Международной научно-практической конференции.
21. Kobiljonova, S. R., Jalolov, N. N., Sharipova, S. A., & Tashmatova, G. A. (2023). Clinical and morphological features of gastroduodenitis in children with saline diathesis. American Journal of

Pedagogical and Educational Research, 10, 35-41.
22. Kobiljonova, S. R., Jalolov, N. N., Sharipova, S. A., & Mirsagatova, M. R. (2022). COMBINED SKIN AND RESPIRATORY MANIFESTATIONS OF FOOD ALLERGY IN CHILDREN.
23. Salomova, F. I., Rakhimov, B. B., Jalolov, N. N., Sultonov, E. Y., & Oblakulov, A. G. (2023). Atmospheric air of the city of Navoi: quality assessment. British Journal of Global Ecology and Sustainable Development, 15, 121-125.