

The Impact of Respiratory Diseases on the Quality of Education Among University Students

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Abstract

Respiratory diseases remain among the most common health problems in student populations. Frequent episodes of respiratory infections, influenza, bronchitis, and other airway diseases significantly affect students' learning quality, cognitive performance, motivation, and psycho-emotional stability. The combination of intense academic workload and social stress further aggravates these effects.

Keywords: Respiratory diseases; university students; academic performance; cognitive function; learning quality; fatigue; chronic illness; psychological stress; prevention; educational policy.

1. Relevance of the Problem

According to the World Health Organization (WHO), young adults aged 18–25 experience an average of three to six respiratory infections annually. In the context of academic study, such frequent illnesses lead to systematic class absences, reduced academic performance, and increased stress levels. The prevalence is particularly high among students living in dormitories, where close contact and poor ventilation increase the risk of infection transmission.

2. Impact on Cognitive Functions and Academic Performance

Respiratory infections are often accompanied by hypoxia, sleep disturbances, and general fatigue — all of which impair attention, memory, and learning ability. Studies show that even mild upper respiratory tract infections can reduce reaction speed by 15–20% and temporarily diminish information retention. Consequently, students recovering from illness may struggle to keep up with lectures, assignments, and examinations.

3. Analysis

To evaluate the impact of respiratory diseases on the quality of education, four student groups were analyzed:

- 1) students without illness episodes, 2) those who experienced 1–2 episodes of acute respiratory infection (ARI),
- 3) those who experienced 3–4 episodes, and 4) students with chronic respiratory diseases.

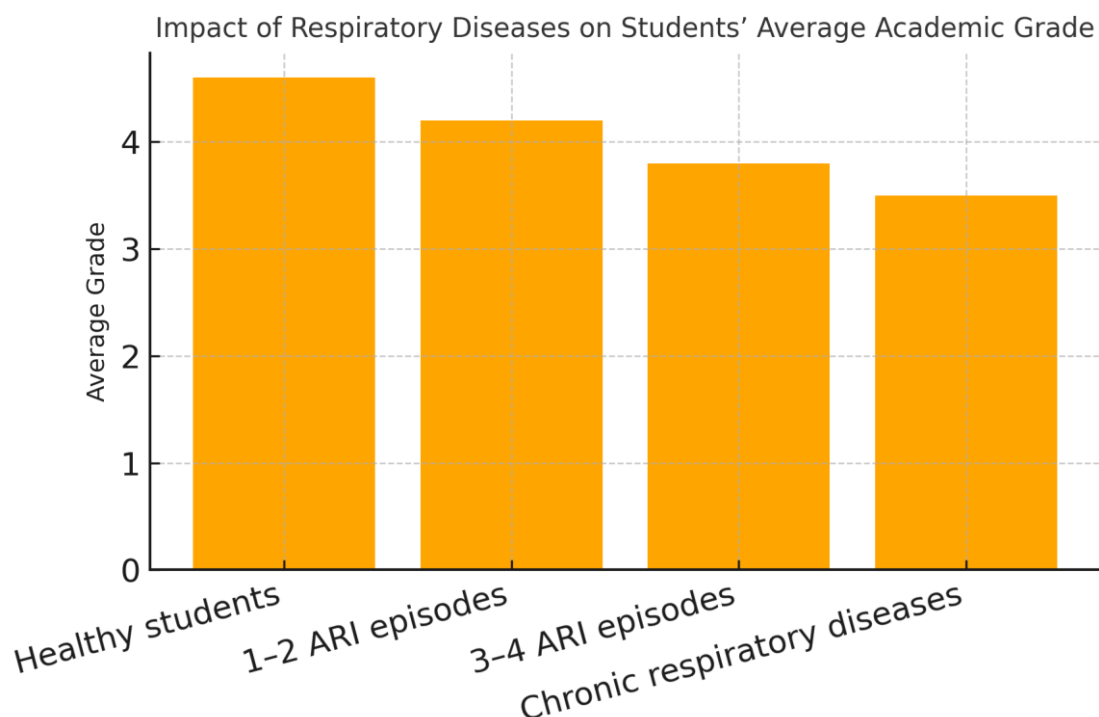


Figure 1. Influence of Disease Frequency on Average Academic Grade.

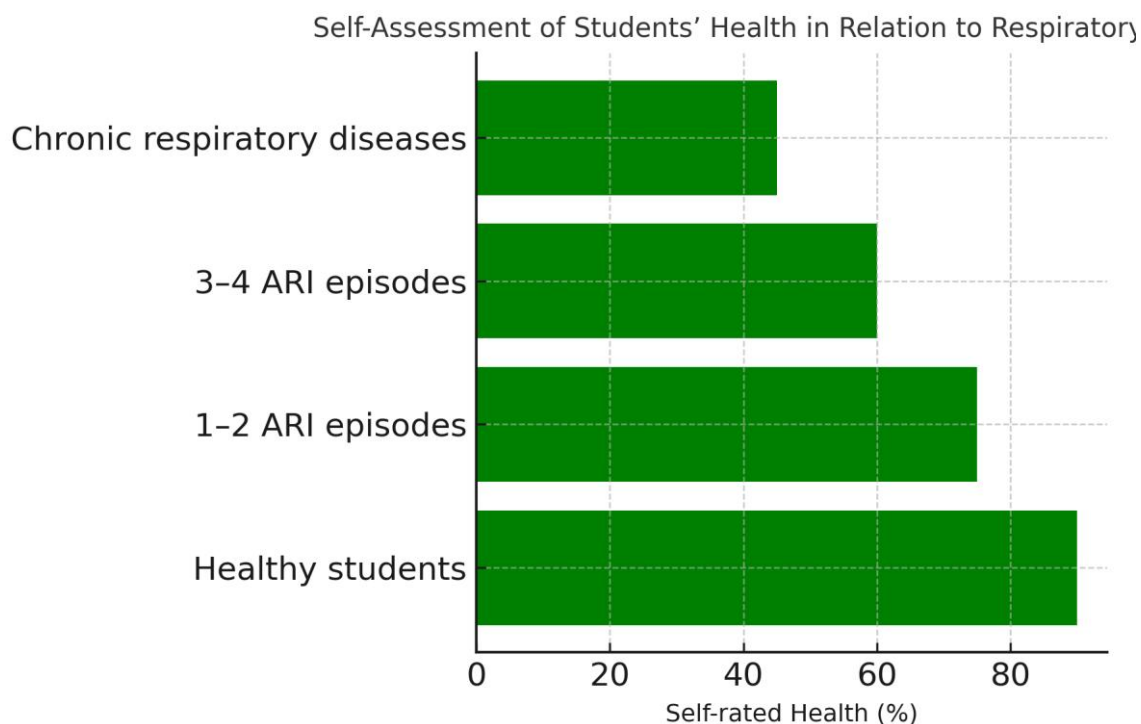


Figure 2. Self-Assessment of Health Status Among Students with Respiratory Diseases.

4. Conclusions

Frequent respiratory diseases negatively affect the quality of university education by reducing students' academic performance and cognitive productivity. Chronic respiratory disorders intensify fatigue, anxiety, and demotivation, further impairing academic outcomes. A comprehensive approach — including disease prevention, medical supervision, psychological support, and flexible educational policies — is essential to maintain the health and learning efficiency of university students.

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