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### IMPACT OF SLEEP ON MEDICAL STUDENTS ' ACADEMIC PERFORMANCE

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**Abstract:** Sleep is the main factor determining the quality of life of any person, especially students. In the conditions of the modern educational system, students face a high academic load, which often leads to a lack of sleep. This causes a deterioration in physical health, a decrease in mental performance, and an unstable emotional state.

#### Keywords: sleep, students, quality of life, mental performance, healthy lifestyle, academic load.

**Introduction:** Sleep plays a key role in maintaining a person's physical and mental health. It is essential for restoring the body's energy resources, regulating metabolic processes, and strengthening the immune system. For students who are under constant informational and emotional stress, a good night's sleep becomes an integral part of a high-quality lifestyle. However, according to research, more than 60% of students experience various sleep disorders, which leads to a decrease in their academic performance, motivation level and overall well-being.

The aim of this work is to analyze the impact of sleep on the main aspects of students ' quality of life and to identify recommendations for improving sleep patterns in conditions of intensive learning activities

1. The impact of sleep on physical health: Sleep has a direct impact on health. During sleep, the processes of tissue repair, hormone regulation and detoxification of the body are activated. Lack of sleep leads to the following negative consequences for students ' health:

\* reduced immunity, which increases the risk of infectious diseases;

\* the development of chronic fatigue, which reduces the level of physical activity;

\* disruption of the cardiovascular system, including increased blood pressure and stress levels. Students who experience chronic lack of sleep are more likely to complain of headaches, decreased performance, and general deterioration of health.

2. Effects of sleep on cognitive function: Cognitive abilities such as memory, attention, learning, and decision-making are directly related to the quality and duration of sleep. Insufficient sleep reduces the efficiency of information processing, which is a critical factor for students. Studies have shown that students who sleep less than 6 hours a night are less likely to remember learning material, make more mistakes in tests, and are less likely to be creative in solving problems. Sleep also plays an important role in memory consolidation.

3. Psychoemotional state and sleep: Lack of sleep negatively affects emotional stability. It leads to increased irritability, decreased motivation, anxiety, and depression. Students who regularly lack sleep experience an increase in the level of cortisol, the stress hormone, which increases the feeling of fatigue and emotional exhaustion. Particularly vulnerable are medical students who face high levels of stress and often neglect sleep in order to prepare for exams. This creates a vicious circle: stress disrupts sleep, and lack of sleep increases stressful states.

4. Social aspects of quality of life: Sleep also affects students ' social adaptation. Fatigue caused by lack of sleep reduces the desire to participate in social events, makes it difficult to build interpersonal relationships, and worsens the quality of communication. Students with chronic

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sleep deprivation are more likely to experience feelings of loneliness and social isolation, which can lead to a deterioration in their psychoemotional state.

5. Main causes of sleep disorders in students: Among the main factors affecting students ' sleep, we can distinguish:

1. Irregular sleep patterns. Late falling asleep and early rising disrupt the body's circadian rhythms.

2. Excessive use of gadgets. Blue light from screens suppresses melatonin production, making it harder to fall asleep.

3. Training load. Overexertion during exam periods leads to a decrease in the duration and quality of sleep.

4. Stress. Psychoemotional stress often causes insomnia.

5. Poor sleeping conditions. Noise, bright lights and an uncomfortable sleeping place also degrade the quality of rest.

6. Recommendations for improving sleep: To improve sleep and improve the quality of life, students are recommended to:

\* Set the sleep mode. Go to bed and get up at the same time, even on weekends.

\* Restrict the use of gadgets. Stop working with screens 1-2 hours before bedtime.

\* Maintain good sleep hygiene. Create a comfortable environment in the bedroom: ensure silence, darkness and optimal temperature.

\* Reduce stress levels. Use relaxation techniques such as meditation, yoga, or breathing exercises.

\* Balance your physical activity. Moderate exercise has a positive effect on the quality of sleep.

For students, sleep plays a key role in learning information, developing cognitive abilities, and managing stress. During sleep, the brain processes information received during the day, forms long-term memory and restores nerve cells. The recommended sleep duration for young people is 7-9 hours per day. However, studies show that many students sleep significantly less due to overload, which leads to a decrease in their academic performance. During the deep phases of sleep, cell regeneration increases, muscles are restored, cortisol (the stress hormone) decreases, and the immune system is strengthened. Neglect of this process can lead to poor health, increased fatigue, and even chronic diseases.

Effects of sleep deprivation: Lack of sleep can have both short-and long-term negative effects on students. Among all the consequences listed earlier, the most common problems are:

- Cognitive impairment. Reduced ability to concentrate, slower reactions, poorer memory and ability to solve complex problems. This directly affects academic performance.

- Emotional disorders. Chronic lack of sleep increases stress levels, provokes irritability, depression, and apathy.

- Physical exhaustion. The body, deprived of proper rest, gets tired faster, its height and working capacity decrease.

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- About the weakening of the immune system. Constant lack of sleep makes the body vulnerable to infections and chronic diseases.

Ways to improve sleep: To improve the quality of sleep and improve the overall standard of living, students can take the following steps:

1. Setting the daily routine. Go to bed and get up at the same time, even on weekends. Regularity helps to normalize the biological clock.

2. Limiting the use of gadgets. Turn off all electronic devices at least an hour before bedtime to reduce exposure to blue light.

3. Creating a comfortable environment. The bedroom should be quiet, dark and cool. These conditions promote deep and uninterrupted sleep.

4. Physical activity. Regular exercise improves your overall health and helps you sleep better. However, intense workouts are best avoided in the late evening.

5. Relax before going to bed. Light meditation, breathing exercises, or reading a book can reduce your stress levels and make it easier to fall asleep.

**Conclusion:** Sleep plays a crucial role in students ' lives. It has an impact on their academic performance, physical health, and emotional state. Despite the high academic load, students should be aware of the importance of quality rest and strive to create conditions for a good night's sleep. Smart time planning, avoiding bad habits, and maintaining sleep hygiene will help you not only improve your well-being, but also achieve great success in your studies and life.

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