

# UNLOCKING SUCCESS: THE POWER OF QUALITY SLEEP FOR UNIVERSITY STUDENTS

**Anastasia TIGANESCU, Daniela COJOCARI, Janeta GRIGORAS\***

*Department of Software Engineering and Automation, group FAF-231, Faculty of Computers, Informatics, and Microelectronics, Technical University of Moldova, Chisinau, Republic of Moldova*

\*Corresponding author: Janeta Grigoras, [janeta.grigoras@isa.utm.md](mailto:janeta.grigoras@isa.utm.md)

Tutor/coordinator: **Elena GOGOI**, university lecturer, Technical University of Moldova

**Abstract.** *Sleep is a key component of human health and cognitive function; it is necessary for mental clarity, emotional equilibrium, and physical well-being in addition to physical health. However, it is often overlooked and undervalued despite its vital role, especially in the hectic lives of university students. Based on a study with 108 participants, this article explores the effects of sleep deprivation on university students' academic performance and general well-being. The prevalence of insufficient sleep duration and its effects, such as trouble concentrating, mood swings, and physical health problems, were investigated through survey data analysis. The study identifies common sleep-deficiency causes, including excessive academic workloads, chaotic sleep schedules, and using electronics right before bed. It also discusses the dependence on caffeine as a means of combating daytime fatigue and the possible long-term consequences this may have on the quality of sleep. The paper stresses how crucial it is for students to get enough sleep, emphasizing how it improves cognitive performance and lowers stress levels. Useful suggestions are also proposed for enhancing the quality of your sleep, such as controlling light exposure, keeping your room at the ideal temperature, and avoiding using electronics right before bed. Students can develop healthier sleep habits and enhance their overall health and academic performance by putting these strategies into practice.*

**Keywords:** *academic performance, advantages, consequences, sleep deprivation, strategies*

## Introduction

It is a well-known fact that humans spend approximately one-third of their entire lives sleeping. It is not surprising, then, that the science behind sleep has been studied for centuries. From the ancient Greeks, who linked sleep to a reduction in blood flow to the brain [1], to the most recent research on the effects of sleep, the study of sleep has been ongoing. Currently, in a time of digital consumption, social media use, and round-the-clock connectivity, sleep science is receiving more attention, especially concerning how it affects college students' personal and academic lives. Students frequently sacrifice adequate rest in an unending cycle of juggling coursework, jobs, and extracurricular activities.

The negative effects of sleep deprivation go beyond just poor academic performance. This article seeks to shed light on the crucial role that sleep plays in this situation by examining the relationship between sleep deprivation and its effects on students' academic performance and general well-being through the analysis of survey data. Our results highlight the need for focused interventions and the advantages of making sleep a priority, not only for the students' long-term health but also for their academic success.

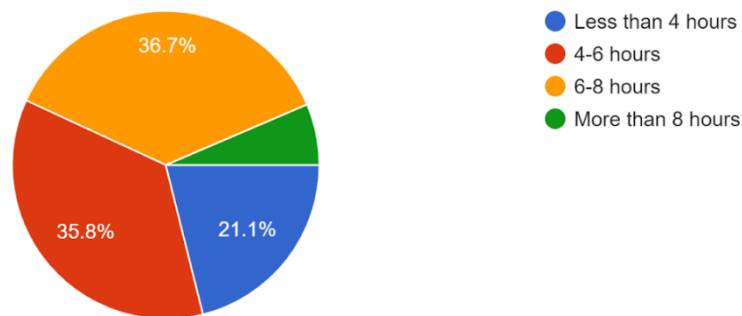
## Sleep patterns of university students

According to the Cambridge Dictionary, sleep is “the resting state in which the body is not active and the mind is unconscious” [2]. Moreover, it is a crucial component of health, since its timing, length, and quality influence emotion regulation, metabolism, memory, acquiring new information, etc. Unfortunately, the importance of sleep on well-being and performance is

frequently overlooked, especially in the case of students, who due to the massive changes in their lives, are prone to oblivion towards sleep. A small study was conducted to gain insightful data on their sleep patterns and their effects on their performance.

To begin the study, participants were asked the following question: “How many hours of sleep do you typically get on a weeknight?” While 36.7% of the respondents reported receiving a total of 6-8 hours of sleep on weeknights, a substantial part, accounting for 35.8%, did not meet this recommended range. Furthermore, 21.1% acknowledged sleeping for less than 4 hours, indicating a serious sleep deficiency.

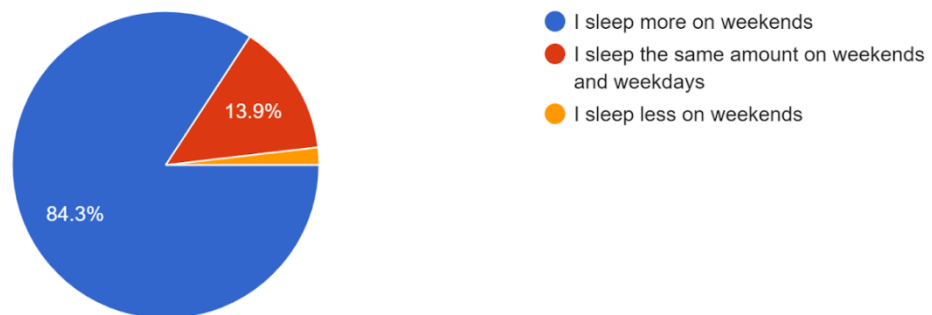
How many hours of sleep do you typically get on a weeknight?  
 108 responses



**Figure 1. The number of hours of sleep students get on weekdays**

When asked about the hours of sleep the students get on weekends compared to weekdays, the vast majority (84.3%) replied “I sleep more on weekends”. This fact suggests a common pattern of compensating for weekday sleep deficits by sleeping more on weekends.

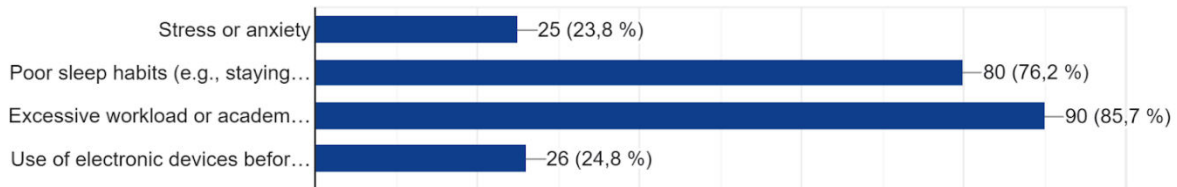
On average, how many hours of sleep do you get on weekends compared to weekdays?  
 108 responses



**Figure 2. The number of hours of sleep students get on weekends**

When asked what factors contribute to inadequate sleep, a startling 85,7% of respondents cited heavy workloads and pressure from school. 76,2% place the blame on their bad sleeping habits, which include irregular sleep schedules and staying up late. Finally, 24,8% identified using electronic devices before bedtime as a contributing factor, with 23,8% citing stress or anxiety.

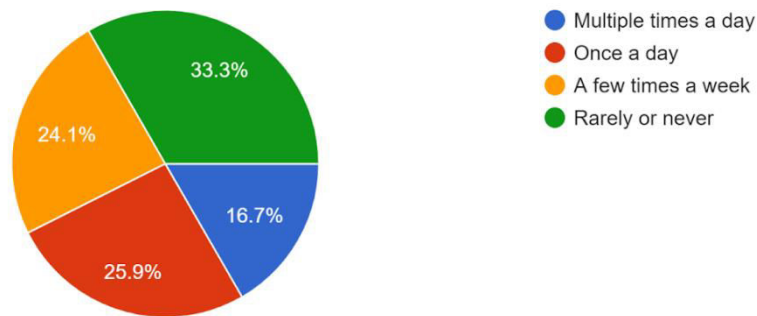
What do you believe are the reasons behind your insufficient sleep? (if you get insufficient sleep)  
105 răspunsuri



**Figure 3. The reasons behind insufficient sleep**

In contrast to the 33.3% who either rarely or never use caffeine or energy drinks, 25.9% of participants said they drink energy drinks once a day and the other 24.1% consume them a few times per week. Moreover, the 16.7% percent who rely on energy drinks/caffeine multiple times a day further emphasizes their need for caffeine as a boost of energy. The fact that many people rely on caffeine to keep them going during the day suggests they might not be getting enough sleep at night, needing a boost to keep them alert during the day.

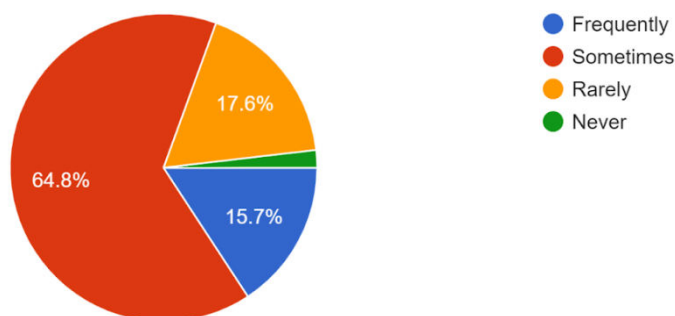
How often do you consume caffeine or energy drinks to help you stay awake?  
108 responses



**Figure 4. Frequency of caffeine/energy drink consumption**

Additionally, the insufficient amount of sleep is known to disrupt concentration. Among participants, 64.8% report occasionally difficulty concentrating in class, potentially affecting their academic performance. Another part (15.7%) encounter this issue frequently, while 17.6% rarely do. Interestingly, only two persons selected "never", which indicates that the problem of trouble concentrating due to insufficient sleep is pervasive among the students.

Have you ever experienced difficulty concentrating in class due to lack of sleep?  
108 responses

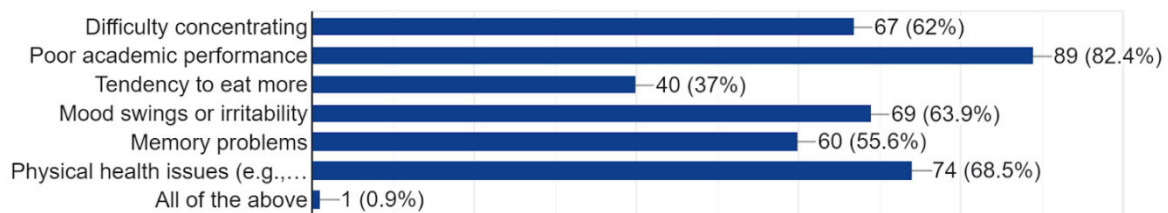


**Figure 5. How sleep deprivation influences concentrating in class**

Sleep deprivation has various serious consequences. Among the most prevalent are poor academic performance (82.4%) and physical health issues (68.5%). Furthermore, the vast majority experience mood swings or irritability (63.9%) and difficulties concentrating (62%) because of sleep insufficiency, which highlights the significant impact on cognitive functions and educational outcomes. Additionally, some participants reported experiencing nosebleeds and anxiety as further adverse effects of sleep deprivation.

What do you believe are the consequences or outcomes of sleep deprivation?

108 responses



**Figure 6. Consequences of sleep deprivation**

Deriving from the study, it is easy to observe the pervasive issue of inadequate sleep among students, influenced by stress, irregular sleep schedules, and academic pressure. This lack of sleep adversely affects concentration, mood, memory, and academic performance. Urgent interventions are needed to promote healthy sleep habits and mitigate these detrimental effects on students' well-being and academic success.

### Advantages of a high-quality sleep

So, what happens when a young adult makes getting enough sleep a top priority? Building upon the survey's insights presented previously, which showcase the effects of sleep deprivation in university students, it stands to reason that maintaining a healthy sleep schedule can yield significant benefits. With adequate rest, students are likely to find it easier to concentrate, support their memory retention, and ultimately enhance their academic performance.

Indeed, in a Harvard article about the importance of sleep, Associate Professor Edward Franz Pace-Schott, an expert in psychiatry and sleep medicine, states that sleep plays a crucial role in strengthening memory. Specifically, sleeping on the material you've just learned facilitates the retention and integration of information, ultimately enhancing learning outcomes [3].

Moreover, getting enough sleep correlates with feeling less exhausted during the day. This in turn leads to a heightened ability to concentrate and be more productive. Last but not least, sleep is an amazing regulator for stress, since they are highly intertwined. Insufficient sleep contributes to heightened stress levels, while conversely, stress hinders the brain's ability to relax and enter restorative sleep cycles. Thus, the relationship between sleep and stress forms a detrimental cycle that can significantly impact overall well-being.

### Quality sleep recommendations

Now that a better understanding of the impact that quality sleep has on general well-being has been obtained, some helpful tips for achieving a better night's rest will be presented in the subsequent paragraphs.

Firstly, one should block out the light during the night to ensure a better sleep [4]. Light has been proven to disrupt the secretion of melatonin, a hormone that regulates the sleep-wake process. According to a survey conducted in the United States, by a leading expert on innovation and entrepreneurship Pankaj C. Patel, a 10-unit increase in night-time light caused a prevalence of insufficient sleep by 13.77% [5]. Therefore, using block-out curtains can contribute to melatonin secretion and a better quality of sleep.

Another factor that can help increase the quality of one's sleep is to keep the room's temperature at a comfortable level. Studies have shown that there is a direct relationship between thermoregulation and sleep. Even getting ready for sleep is considered a thermoregulatory behavior [6]. Nonetheless, during REM sleep the brain stops regulating body temperature, which is why ideal external temperature conditions are essential. Chartered Institution of Building Services Engineers (CIBSE - Guide A) recommends a range of 17-19 °C in bedrooms during the winter and 23-24 °C - during the summer to ensure a great night's sleep [7].

Moreover, shutting down electronic devices before bedtime can significantly contribute to the overall quality of sleep. Exposure to the blue light of smartphones, computers, tablets, etc. has been proven to have the same effect on the sleep-wake process as daylight has. As mentioned above, this contributes greatly to melatonin suppression and thus makes it harder for people to fall asleep, while also reducing the total duration of sleep. Using electronic devices before bedtime is especially a problem for young adults. Research involving 369 students from Vietnam showed its effects [8]. Out of the 98.1% who reported using at least one device within two hours before bed, 48.8% had poor sleep quality. This further demonstrates that the usage of electronic devices before bedtime should be minimized.

Furthermore, it is recommended to limit the consumption of caffeine. Caffeinated drinks have become extremely popular in the past few years, being rated as the most widely consumed stimulant in the world [9]. For students, it's particularly important to watch their caffeine intake. One might think that drinking coffee, energy drinks, etc. will help them overcome daytime sleepiness caused by deadlines, busy schedules, etc. However, it has been reported that the long-term usage of this stimulant can lead to detrimental effects on subsequent sleep, therefore worsening the feeling of sleepiness [10].

Finally, one last tip to increase the quality of one's sleep is to meditate before bed. Meditation induces similar physiological changes as sleep does, with the exception that the person remains alert [11]. As a result, meditation facilitates melatonin production and helps regulate the natural sleep cycle. Meditating before sleep removes troubled thoughts - thereby relieving anxiety and stress, which are common factors that cause sleep deprivation.

By taking steps to control the factors that influence the quality of sleep, one can ensure a better night's rest. Furthermore, to maintain a healthy sleep routine, it is recommended to follow these steps regularly.

## **Conclusions**

To conclude, this article delves into the outcomes of sleep deprivation among understudies, as uncovered by the study conducted with 108 students. The discoveries highlighted the need for intervention to promote healthy sleep habits. There were emphasized the unpleasant impacts of insufficient sleep which impacts both your mental and physical well-being, resulting in a diminishing academic performance and possible long-term consequences. Some of them infer an expended risk of cardiovascular disease, weight loss or gain, diabetes, and elevated cholesterol levels. For this particular reason, getting an efficient night's rest should be a primary focus for university students. A well-organized sleep schedule will improve cognitive function and will serve as a preventive measure against episodes of depression or anxiety, moreover contributing to overall well-being. By implementing a few of the techniques given above, such as diminishing screen time, meditation, and moderating caffeine consumption, students can foster healthy sleep practices, guiding to a notable improvement of their state of being. By exploring all these components, students stand to establish better sleep habits, resulting in enhanced academic performance and overall welfare. Consequently, unlocking success begins with emphasizing quality sleep.

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