

Effects of Course Load Demands on Average Amount of Sleep Received by College Students

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Introduction

- Sleep is an important and vital part for optimal functioning. Often, students do not realize that poor sleep habits contribute to health problems and decreased academic performance.
- Health problems may affect a student's ability to attend classes, hindering their education.
- It has been found that those who experience sleep deprivation report lower levels of life satisfaction, impaired social relationships, and more frequently partake in risk-prone behaviors such as frequent drug and alcohol use.
- Sleep problems are associated with deficits in attention and academic performance. Those who experience sleep deprivation have slower psychomotor functioning, which contributes to confusion and concentration problems, irritability and increased tension.
- Determinants of sleepiness include the quantity and quality of sleep, the misalignment of circadian rhythms, or irregular sleep-wake habits. The regularization of sleep-wake schedules is associated with less daytime sleepiness when nocturnal sleep is not disturbed or deprived.
- Sleep may be voluntarily sacrificed due to social factors, or involuntarily reduced due to environmental factors such as noise in a residence hall. Typically, students will sleep in on the weekends in order to make up for lost sleep. However, it has been found that this coping mechanism worsens the problem of excessive sleepiness.

Research Question

- On average, do students with a heavy course load receive less sleep on weeknights compared to students with a less strenuous course load?

Methods

- Participants were surveyed via Qualtrics. The survey included a series of questions related to the number of credits each student was taking this current semester, and the time they usually go to sleep on weeknights. Factors that influence the time students go to sleep such as social activities, work, or the inability to sleep were acknowledged.
- After the survey was distributed, the collected data was uploaded into SPSS statistics. An independent T-test was conducted in order to determine if there was a significant difference between the strength of course load, and the average amount of sleep a student received on weeknights. A heavy course load was defined as taking 16 or more credits. A light course load was defined as taking 15 or less credits.

Hypothesis

- H_0 — There is no significant difference between the hours of sleep received by students on weeknights due to course load.
- H_1 — There is a significant difference between the hours of sleep received by students on weeknights due to course load. Students with a heavier course load will receive less sleep on weeknights since they spend more time in class and have more assignments to complete.

Group Statistics

	Credit Load	N	Mean	Std. Deviation	Std. Error Mean
On average, how many hours of sleep do you get on weeknights?	Low Credit Load	66	6.76	1.124	0.138
	Heavy Credit Load	33	6.45	1.092	0.190

Independent Samples Test

	Levene's Test for Equality of Variances	T-Test for Equality of Means								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
On average, how many hours of sleep do you get on weeknights?	Equal Variances Assumed	0.061	0.805	1.276	97	0.205	0.303	0.237	-0.168	0.774
	Equal Variances Not Assumed			1.289	65.776	0.202	0.303	0.235	-0.167	0.773

Results

- There are no significant differences between course load and the amount of sleep a student receives on weeknights, $t(97)=1.276$, $p=0.205$.

Discussion

- The number of credits taken per semester correlates with how many hours a student is spent in class each week. It is suggested that for every hour a student is spent in class, they should spend three hours of their own time studying.
- Students have extremely busy schedules where they must correctly manage their time to be able to balance attending classes, studying and completing work, socializing, exercising, and more. This does not leave a lot of time for students to sleep or relax.
- Having a heavier course load causes a student to spend more time in class weekly, and typically be assigned more work to complete. However, it was found that there is no significant correlation between the strength of a student's course load and the amount of sleep they receive on weeknights. These results may indicate that students who typically have more demanding schedules are efficient at managing their time. This is an important quality for students to have when taking challenging courses, as they must stay on top of their work and complete it in a timely manner.

Limitations and Future Research

- When reviewing results, it was found that multiple participants would report a range for how many hours of sleep they receive on weeknights. If this study was re-conducted, instead of leaving answers open-ended, the survey would have participants choose one multiple choice answer only.
- Multiple factors that influence the amount of sleep students receive on weeknights were acknowledged within the survey. Multiple tests could have been conducted in order to determine if these variables had a significant effect on average hours of sleep received on weeknights by students.
- In order to provide a more accurate record for the amount of sleep a student receives nightly, students could keep a sleep diary. Within the sleep diary, students would note what times they go to sleep each night, and what time they wake up in the mornings. If the amount of sleep received nightly were similar, this would note normalization of a sleep schedule.

References

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