

Survey Project: Sleep and Anxiety in College Students

HPRB 5010



Importance

- Sleep problems and anxiety are two of the most common health concerns among college students¹
- Both strongly affect academic performance, memory, and overall well-being¹
- College students often face unique pressures like course load, work, finances, social stress, etc. which increase their risk



Context

- 60-70% of college students report getting less than 7 hours of sleep each night¹
 - The National Sleep Foundation recommends 7-9 hours of sleep for this population³
- Anxiety is frequently one of the top mental health concerns reported by college students²
- Approximately 34% to 36% of college students report experiencing moderate to severe anxiety symptoms or have been diagnosed with an anxiety disorder⁵

Consequences of Poor Sleep & High Anxiety⁴

- Worsened academic performance
- Less focus
- Worse memory and learning
- Increased risk of other mental health issues
- Physical health effects: headaches, weakened immune system, fatigue



College Students Are Especially At Risk

- Heavy academic workloads
- Social commitments
- Work
- Family
- Stress
- Living in shared spaces
- Technology and electronic use
- Anxiety and other mental health struggles



Purpose

To examine the association between **average sleep patterns** and **anxiety levels** in college students.





Research Questions

Does getting less sleep or poor quality sleep cause higher anxiety levels in college students?

Do college students get adequate amounts of sleep?

Are college students satisfied with their sleeping patterns?

Hypothesis

Getting less or worse quality sleep is associated with **higher anxiety levels** in college students.





Methodology

Survey Details

- Google form
- Survey was sent in cohort groupme and to peers that are UGA students
- Emails were not recorded, responses were anonymous
- Participants were told of the purpose of the study and the anonymity
- 20 responses

Please fill out this survey to the best of your ability regarding your average sleep patterns and anxiety levels. Your responses will help us better understand general trends in sleep and mental health. This survey is completely anonymous and your emails will not be recorded.

Survey Overview



Demographic Data

Age

Year in school

Gender

Race/Ethnicity

Sleep Trend Questions

How many hours of sleep do you get on an average weeknight?

How many hours of sleep do you get on an average weekend night?

Do you take naps during the day?

If you take naps how long are they on average?

How satisfied are you with your amount of sleep on average? (1 = not satisfied, 10 = extremely satisfied)

How would you rate your overall sleep quality?

What factors most affect your sleep amount/quality as a college student?

Anxiety Trend Questions

How would you describe your anxiety level during the school week (1 = no anxiety, 10 = extreme anxiety)?

How would you describe your anxiety level during the school weekend (1 = no anxiety, 10 = extreme anxiety)?

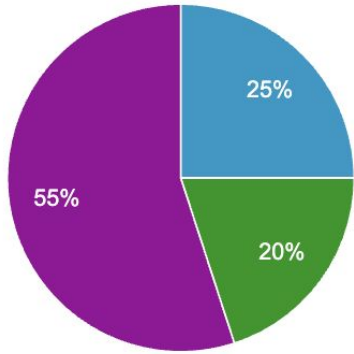
Do you feel that poor sleep increases your anxiety levels?

Results

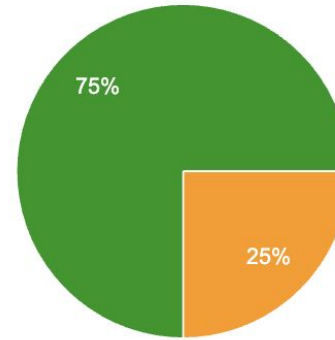


Demographics

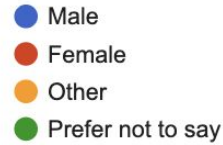
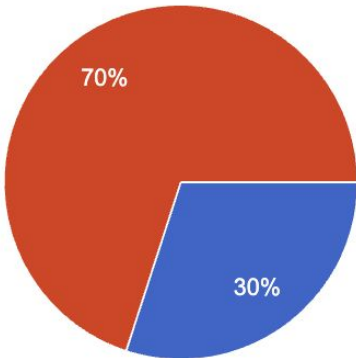
Age



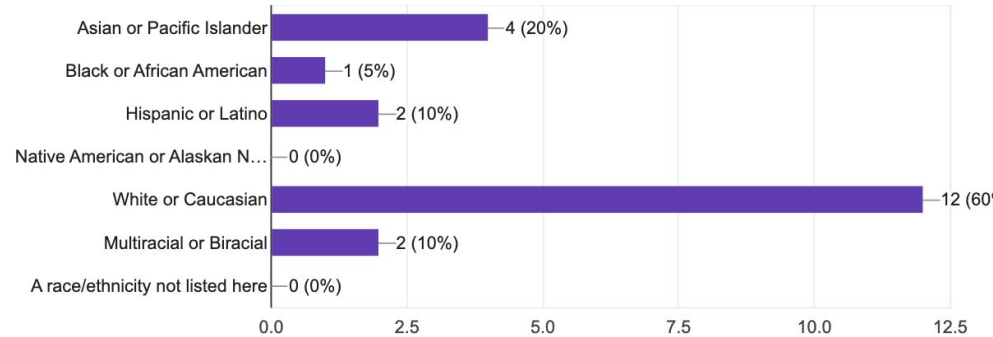
Year in school



Gender



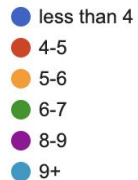
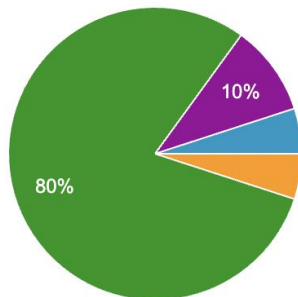
Race/Ethnicity



Sleep Patterns

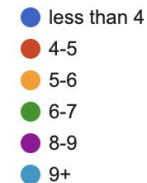
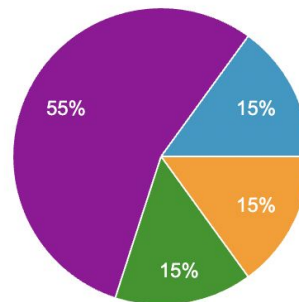
How many hours of sleep do you get on an average weeknight?

20 responses



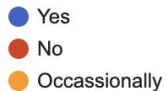
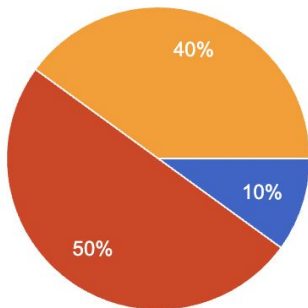
How many hours of sleep do you get on an average weekend night?

20 responses



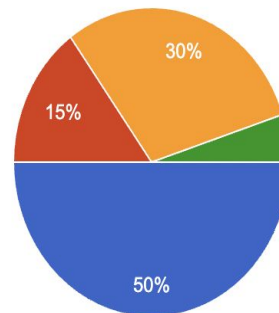
Do you take naps during the day?

20 responses



If you do take naps, how long are they on average?

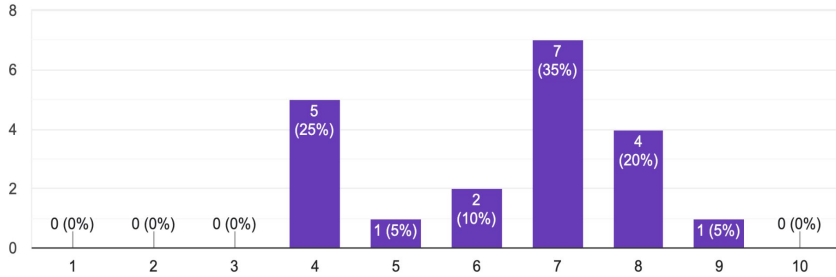
20 responses



Satisfaction and Influencing Factors

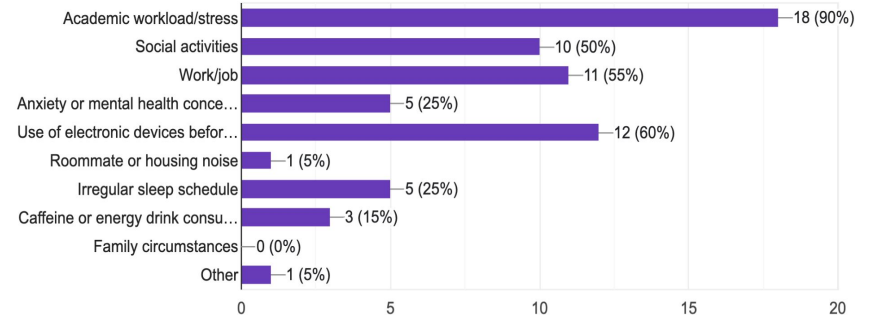
How satisfied are you with your amount of sleep on average?

20 responses



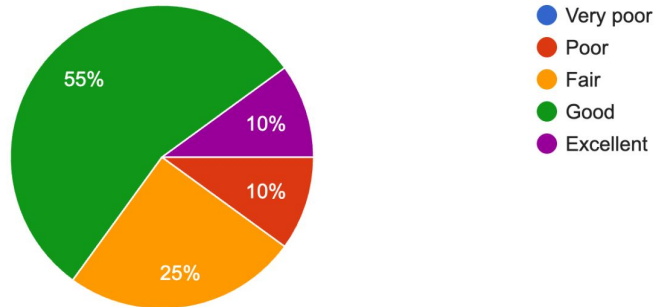
What factors most affect your sleep amount/quality as a college student?

20 responses



How would you rate your overall sleep quality?

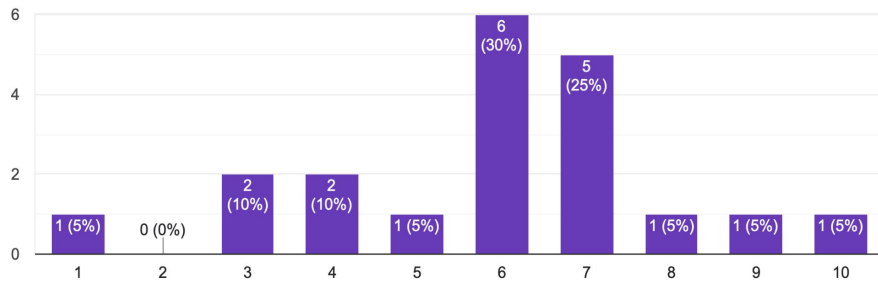
20 responses



Anxiety Levels

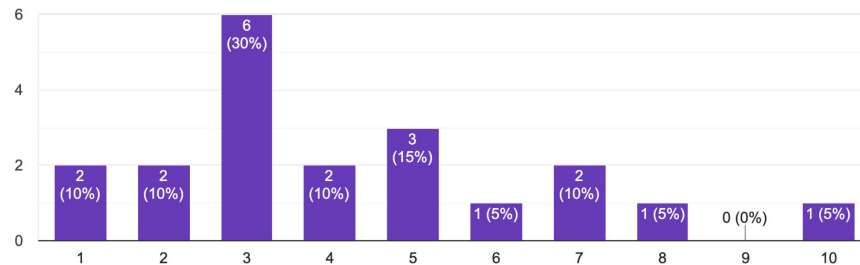
How would you describe your anxiety level during the school week?

20 responses



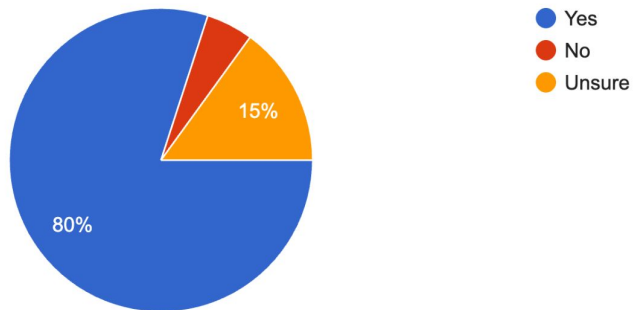
How would you describe your anxiety level during the school weekend?

20 responses



Do you feel that poor sleep increases your anxiety levels?

20 responses



Discussion



Interpreting Results

- **Demographics:**

- With 75% (n= 15) of participants in their Senior year and 25% (n= 5) of participants in their Junior year, there may be a significance between increasing rigor and year in school that impacts sleep and anxiety levels, but because no lowerclassmen participated in this study, we cannot identify causation between the two

- **Week Days vs. Weekends:**

- Participants reported getting significantly more sleep on weekend nights, with 55% (n= 11) sleeping 8–9 hours, compared to weekday nights, when 10% (n= 2) sleep 8–9 hours.
 - Average anxiety levels on the weekend (\bar{x} = 4.25) were significantly less than average anxiety levels during the school week (\bar{x} = 5.9)
 - Relatively 80% of participants attributed lack of sleep to increased anxiety levels
 - Hours of sleep were lower during the school week (80% reported 6-7 hours) and anxiety levels were higher during the school week (\bar{x} = 5.9), which may present a possible association with less hours of sleep during the school week and higher anxiety levels

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Interpreting Results

- **Factors affecting sleep:**
 - 90% of participants reported that academic workload/stress was a main factor in lack of sleep
 - 60% reported electronic use before bed, 55% reported work/job, and 50% reported social activities that contribute to their sleep amount/quality of sleep
 - With 35% of participants reporting fair to poor sleep quality and 40% of participants reporting a amount of sleep satisfaction score below average ($\bar{x} > 6.35$), academic workload may play a role in their sleep satisfaction and quality of sleep among participants
- **Naps:**
 - Relatively half (50%, n= 10) of the participants reported they do not take naps during the day, while 40% reported occasional naps and 10% reported frequent naps during the day
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Applications of Results

Validity

- Questions directly measure sleep and anxiety levels so results accurately reflect the relationship
- Clear, specific terms strengthen construct validity

Reliability

- Consistent 1-10 scales used when necessary
- Question formats are similar and ensure consistent reporting

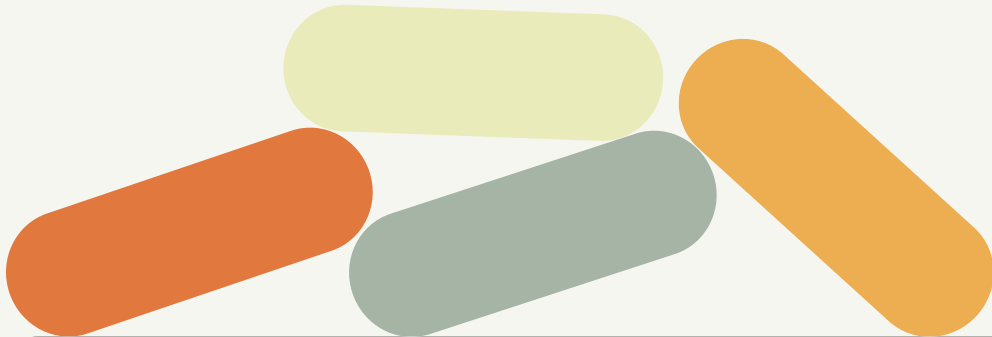
Bias Reduction

- Anonymous google form decreased social desirability bias
- Neutral question wording minimizes response bias

Data Collection Procedures

- Google Form ensured identical survey experiences for the participants
- Survey link distribution via GroupMe allowed for quick data collection
- Collected key demographics to interpret results in subgroups

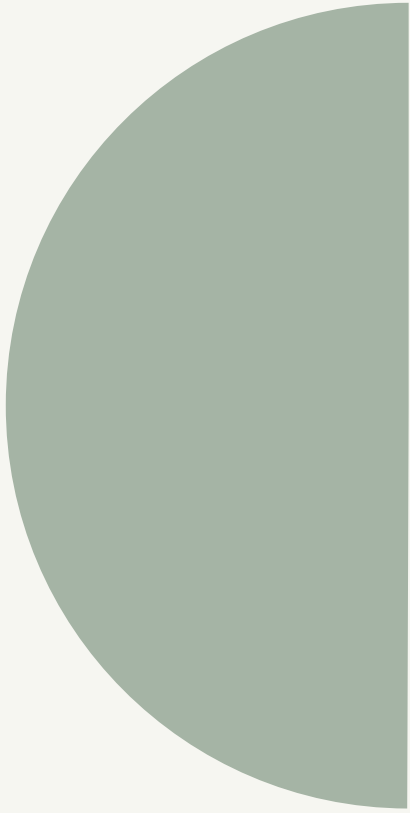
Limitations and Next Steps



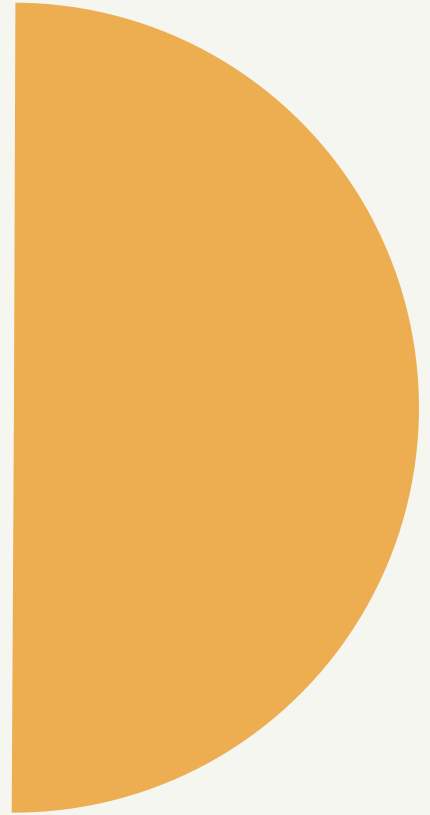
- Small sample size
- Participants were in a small cohort at one university
 - Lack of data on students in other majors, departments, and colleges
- Participants were 20, 21, and 22 or older
 - Lack of data on individuals 17 or younger, 18, and 19
- Participants were juniors and seniors
 - Lack of data on freshmen, sophomores, graduate students

Future Research

- Longer survey data collection time period
- Distribution to other colleges and universities to increase generalizability and diversity of demographics
- Surveying for participants' opinions of if their anxiety levels are correlated to their amount of sleep to analyze effects of perception
- More research and data collection around napping



Conclusion



Key takeaways

- With elevated levels of anxiety during the week correlating with lower hours of sleep during the week, it is possible that amount of sleep and anxiety levels have an inverse correlation.
- Not enough information was gathered on naps to determine the correlation between napping, anxiety, and nightly sleep.
- Over half of the participants also selected “use of electronic device before sleep” and “work/job” in addition to the 90% who indicated “academic workload/stress” as a main factor that limits sleep.

References

1. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4075951/>
2. https://www.cdc.gov/pcd/issues/2022/22_0060.htm
3. <https://www.sleepfoundation.org/school-and-sleep/final-exams-and-sleep>
4. <https://sleep.hms.harvard.edu/education-training/public-education/sleep-and-health-education-program/sleep-health-education-88>
5. <https://www.newportinstitute.com/resources/mental-health/college-anxiety/#:~:text=Anxiety%20Among%20College%20Students:%20Stats,transition%20well%20into%20the%20workplace.>



Thank You