



Healthy Sleep Lifestyle for College Students

Group 116

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Introductions!

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Background

Background Info per the CDC:

- 75% of students report poor sleep quality due to demanding schedules and lifestyle factors
- caffeine intake, stress, and screen time disrupt sleep consistency, affecting performance

Aims of our Project:

- identify which lifestyle factors most affect sleep quality
- provide insight for healthier sleep routines



Hypothesis

We hypothesize that, among U.S. college students aged 18-25, factors such as consistent bedtime and wake time, average duration of sleep, lower caffeine intake, limited screen time, and reduced substance use will correlate strongly with maintaining a sleep schedule of 7-9 hours. We predict these variables will have a significant positive impact on sleep quality due to their direct influence on sleep duration and overall sleep hygiene. The positive impacts of a sleep schedule of 7-9 hours will contribute to positive mental health and stress levels and GPA of at least 3.5.

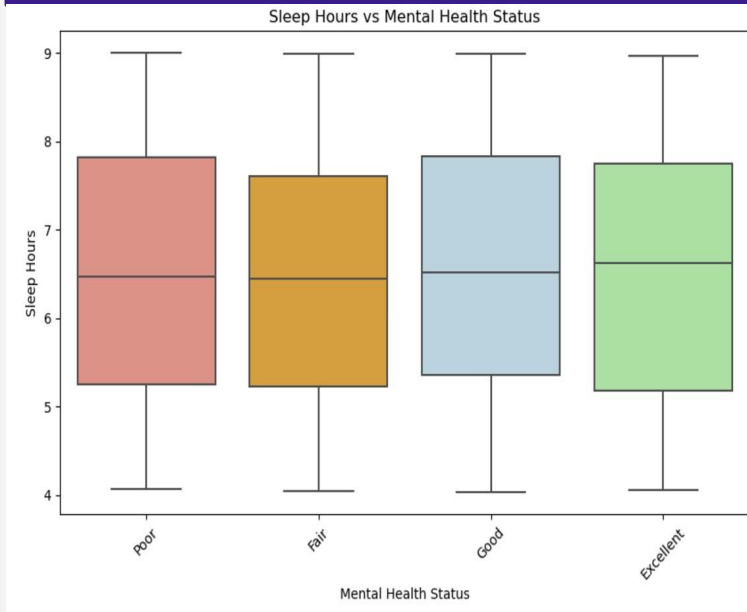
Research Question



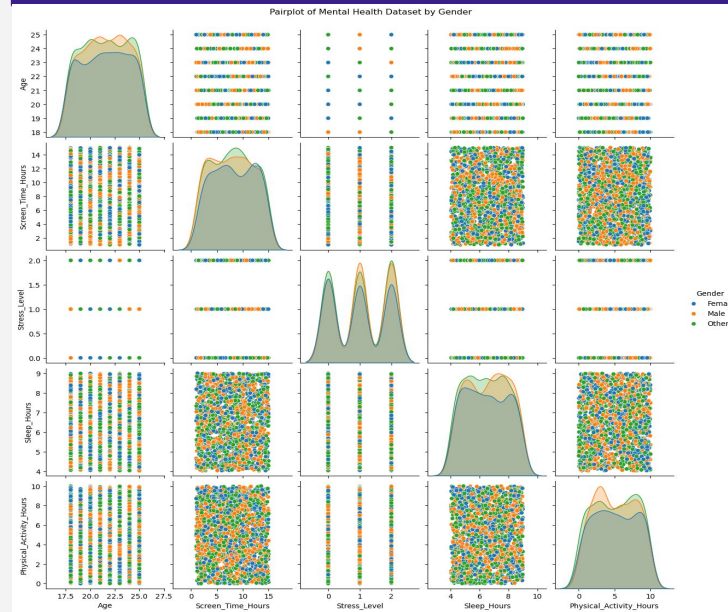
Which measurable factors, reported through self-surveys—such as sleep duration, physical activity, and screen time—are most strongly associated with getting adequate sleep schedules (7–9 hours per night) among college students (ages 18-25) in the US?

Dataset 1: Mental Health and Data Usage

Sleep Hours vs Mental Health



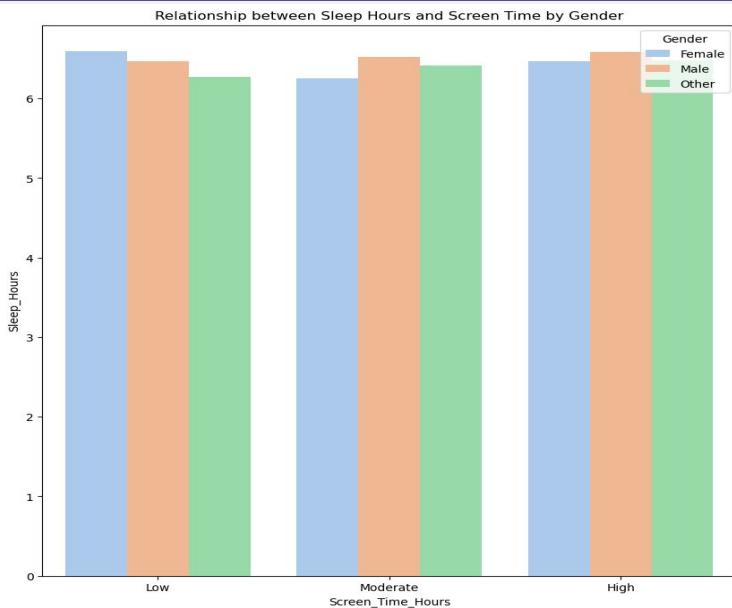
Pairplot of Mental Health by Gender



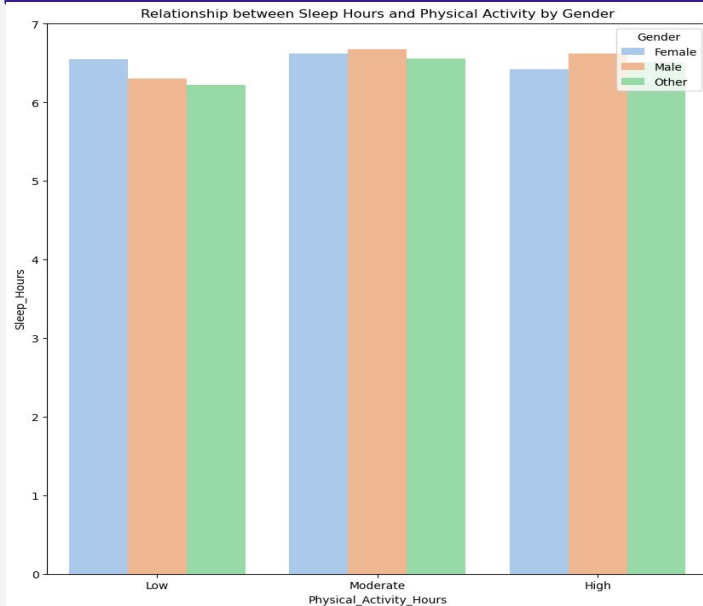
Takeaway: Better sleep improves mental health; females report less activity overall.

Dataset 1: Mental Health and Data Usage

Screen Time vs Sleep Hours



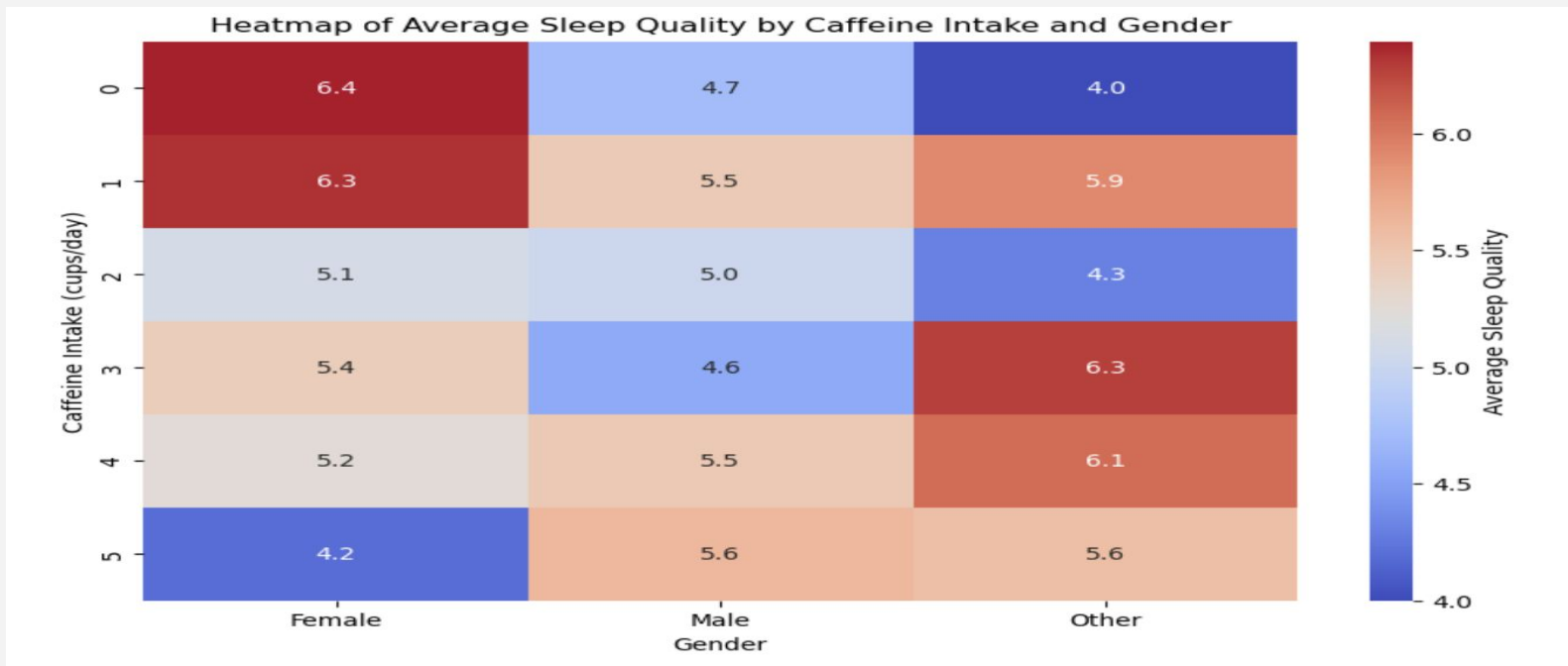
Physical Activity vs Sleep Hours



Takeaway: Sleep patterns vary by gender, influenced by screen time and activity.

Key Insights from Dataset 2

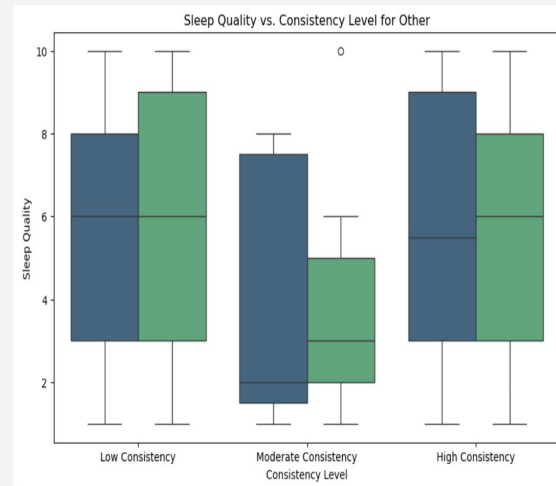
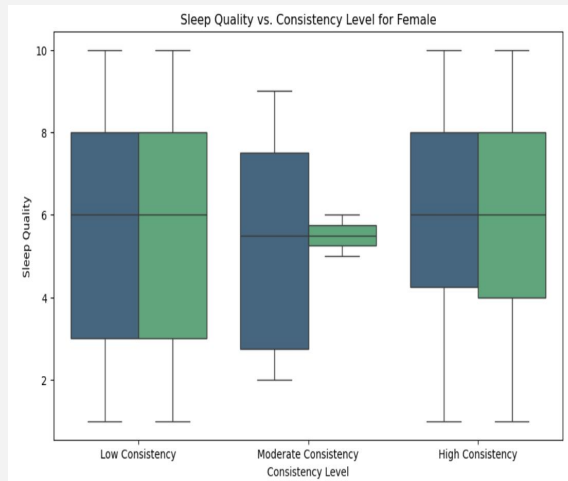
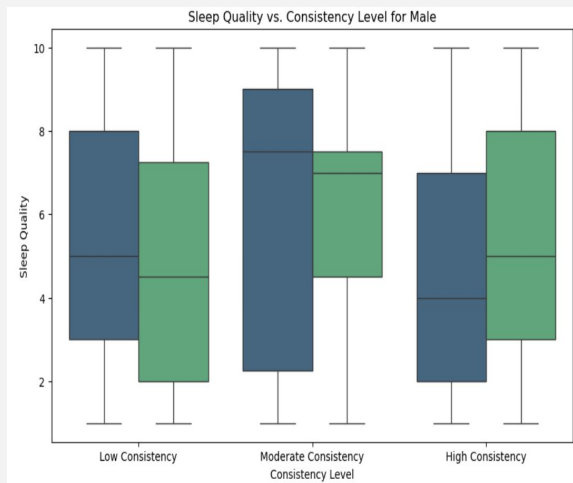
Impact of Caffeine Intake on Sleep Quality Across Genders



Takeaway: Reducing caffeine consumption can enhance sleep quality, especially for females

Key Insights from Dataset 2

Impact of Sleep Consistency on Sleep Quality Across Genders



Takeaway: Maintaining consistent sleep schedules improves sleep quality, especially for males.



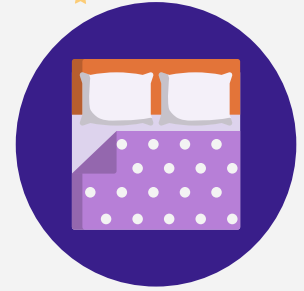
Ethics & Privacy



- **Anonymized Data:** No personal identifiers; limited demographic diversity.
- **Biases in Self-Reporting:** Potential inaccuracies due to social desirability bias.
- **Exclusion Risks:** Data may omit students with chronic conditions or unique socio-economic challenges
- **Limitations:** Socioeconomic and environmental factors not fully addressed.



Conclusions



- **Consistent sleep and wake times improve sleep quality.**
- **Low caffeine intake, reduce screen time, and regular physical activity positively impact sleep.**
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- **Women report lower sleep quality, highlighting gender-specific concerns.**