Survey on EUI Students Sleeping Patterns

Question: Is there a relation between commute time from Uni and time slept after uni ?

Population of Interest:
The population of interest is the students of the Egypt University of Informatics (EUI).

Sampling Method:
The survey employed a convenience sampling method where the questionnaire was shared with EUI students. This method was chosen for its accessibility, speed, and relevance, ensuring that responses came from students who experience similar academic schedules and environments.

Bias Identification:
One potential source of bias is self-reporting bias where students might exaggerate or minimize their sleep quality or sleeping hours. To minimize this, the questions were designed to be neutral, clear, and easy to understand without leading the participants towards a particular answer.

Survey Questions:
- Academic Year

- Gender

- How far do you live from campus?

- How much sleep do you get after coming home from university? (in minutes)

- On a scale of 1 to 5, do you have enough time to get your university work done after returning from university?

- On a scale of 1 to 5, do you have enough time for personal activities after returning from university?

- How many hours do you sleep at night on average?

- When do you usually go to sleep at night ?

- How would you rate your overall sleep quality ?

Online survey link:

https://forms.gle/Dgqc9LMxKSCB1iGg9

Number of samples collected:
37

**Analysis:**

8. Describe Dataset

`[12] df.describe()`

|	Sleep after Uni	AssignmentTime (1-5)	ActivitiesTime (1-5)	SleepDuration (hrs)	SleepQuality (1-5)
count	37.000000	37.000000	37.000000	37.000000	37.000000
mean	92.162162	2.810811	2.432432	6.756757	2.810811
std	102.473171	0.938019	1.093936	2.046751	1.075945
min	0.000000	1.000000	1.000000	3.000000	1.000000
25%	0.000000	2.000000	2.000000	6.000000	2.000000
50%	60.000000	3.000000	2.000000	7.000000	3.000000
75%	120.000000	3.000000	3.000000	7.000000	4.000000
max	420.000000	4.000000	5.000000	15.000000	5.000000

Means, Standard Deviations and other statics in non-categorical statistics.
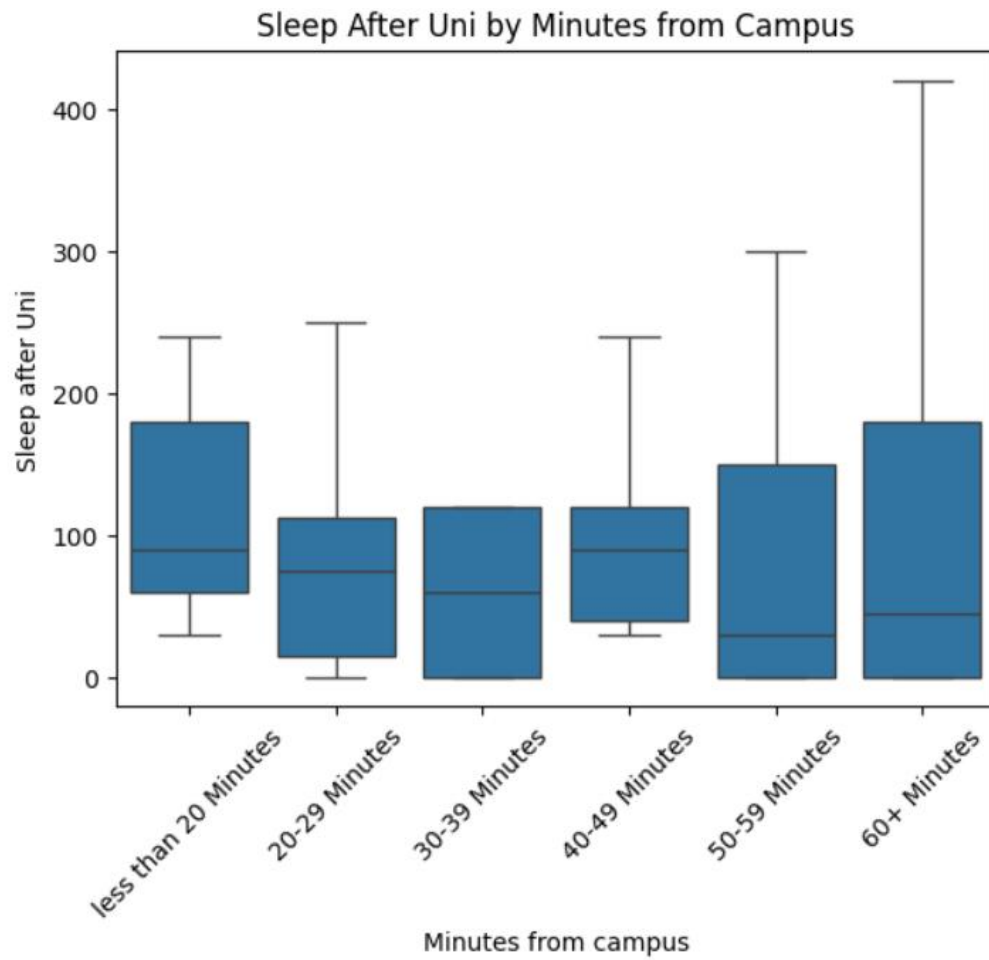
Pie Chart for Minutes from campus
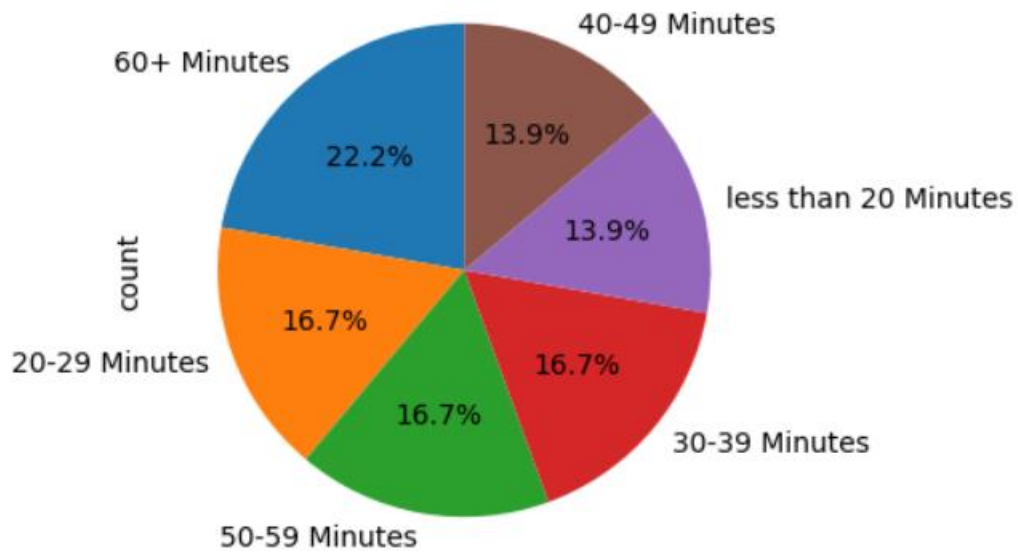
Responses are almost equally distributed over how far away they live from University.

## Pie Chart for ActivitiesTime (1-5)
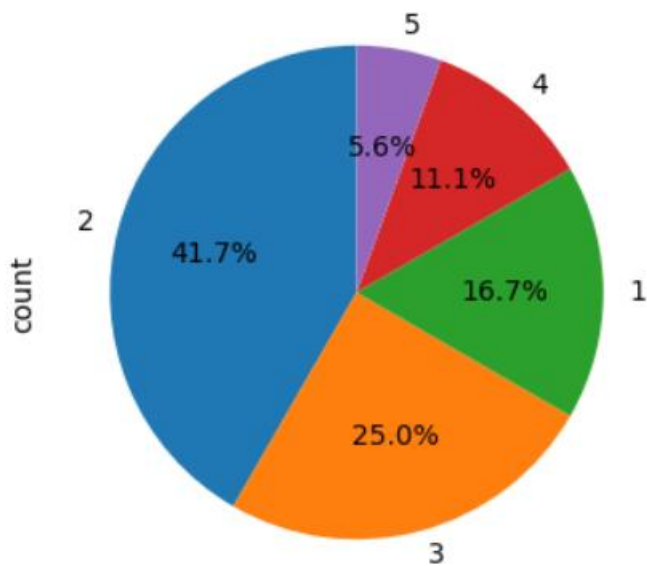
Most Students feel like they don't have enough time to do activities outside of university

Sleep After Uni by Minutes from Campus

We find no significant relation between Commute Time from EUI and time slept after University.

Pearson correlation coefficient: -0.007264027623442632

p-value: 0.4832308162896804 There is no Correlation
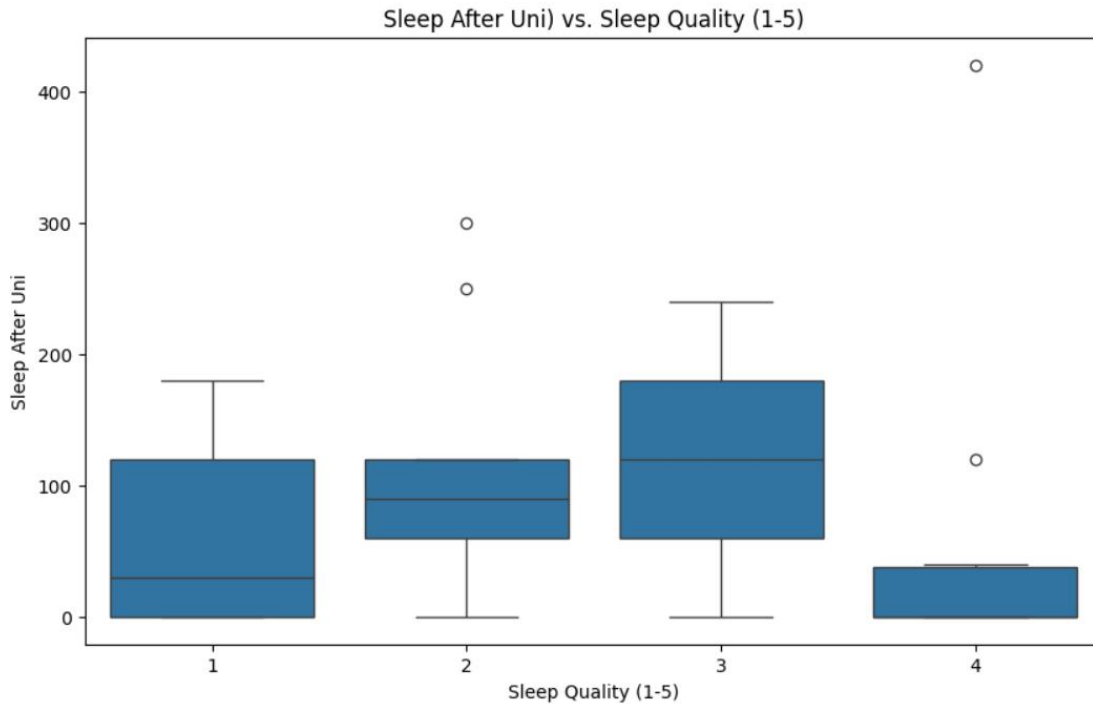
Sleep Duration (hrs) vs. Sleep Quality (1-5)
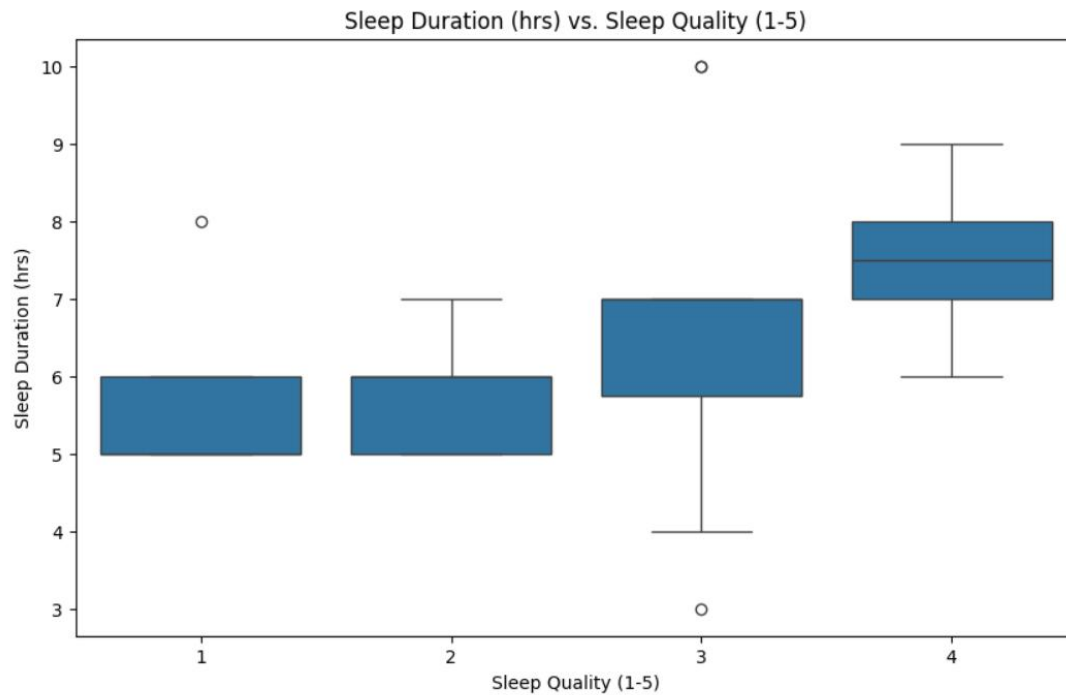
We can clearly see that the more time slept at night correlates with higher sleep quality

Pearson correlation coefficient: 0.3987149870701398

 p-value: 0.01600955142485 2067

♡ There is a significant correlation.

Sleep After Uni) vs. Sleep Quality (1-5)

We find no real relation between sleep after university and sleep quality

Pearson correlation coefficient: –0.0536105679000195

p-value: 0.7561543488636573

✘ *No significant correlation.*

Conclusion:

Based on the analysis, most EUI students reported sleeping between 6 to 8 hours on average. Many students struggle with balancing university tasks and personal activities due to long commute times. However, the overall sleep quality rated by students was moderate, suggesting potential room for improvement in time management or university scheduling.

We Also Found Significant Correlation between Time slept at night and Quality of sleep, but found no real correlation between commute time and duration of sleep after university.

Any potential issues:

A potential issue is the small sample size (37 responses), which might not fully represent the entire student body. Additionally, the convenience sampling may have led to under-representation of certain academic years or genders. Also this form being taken in Ramadan may have caused some bias in the responses.