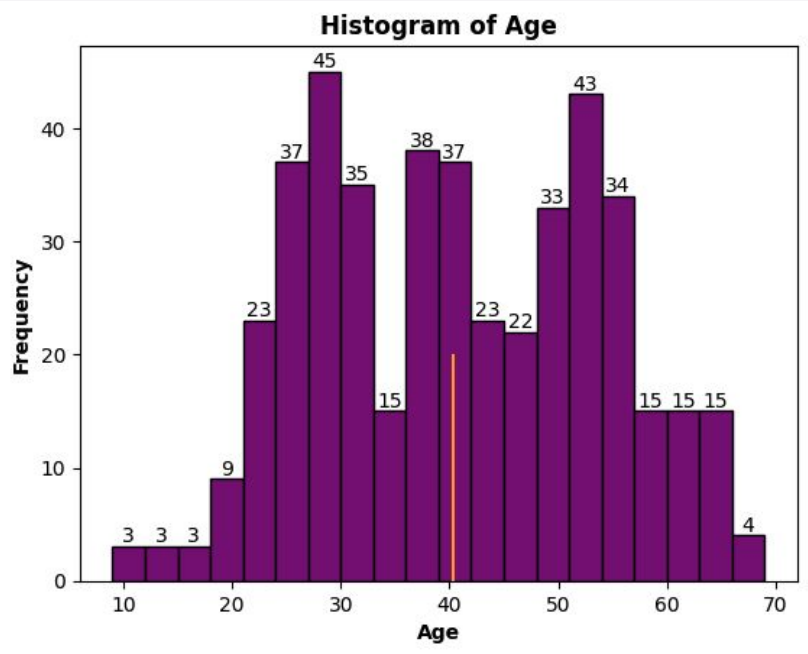
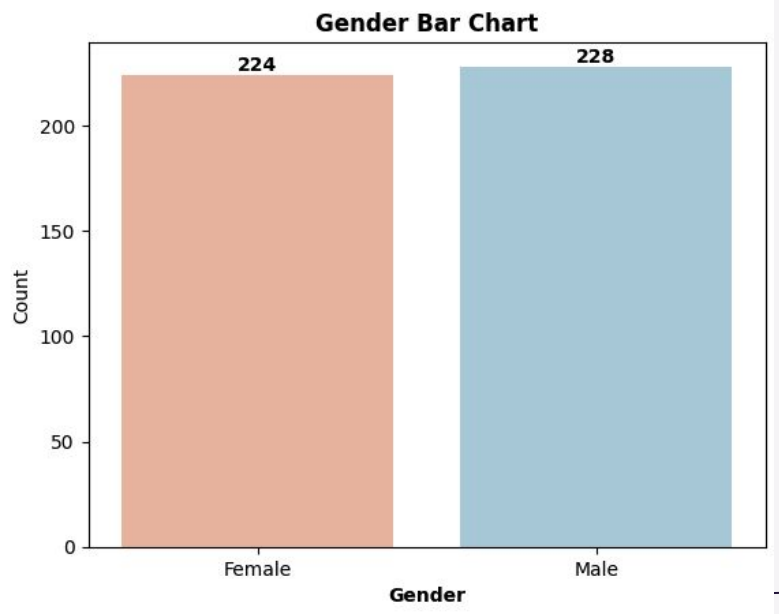
IMPROVING SLEEP EFFICIENCY

Edric Ma

DEMOGRAPHIC



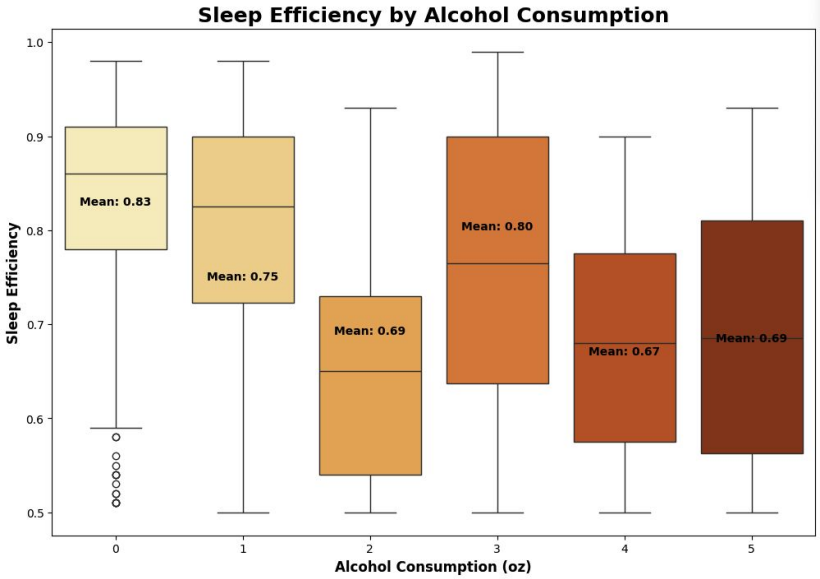


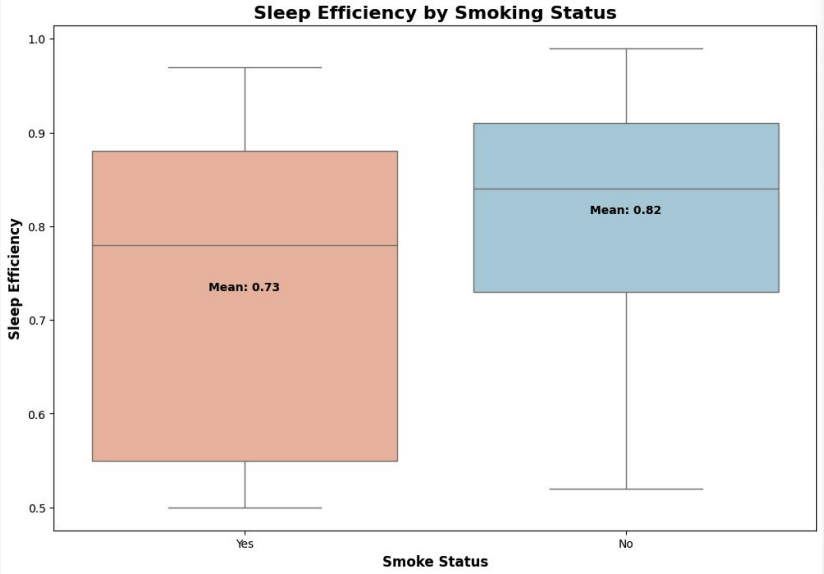
Approximately 81% of participants aged between 25-60

Average age around 40

Total number of participants: 452

SMOKING STATUS AND ALCOHOL CONSUMPTION

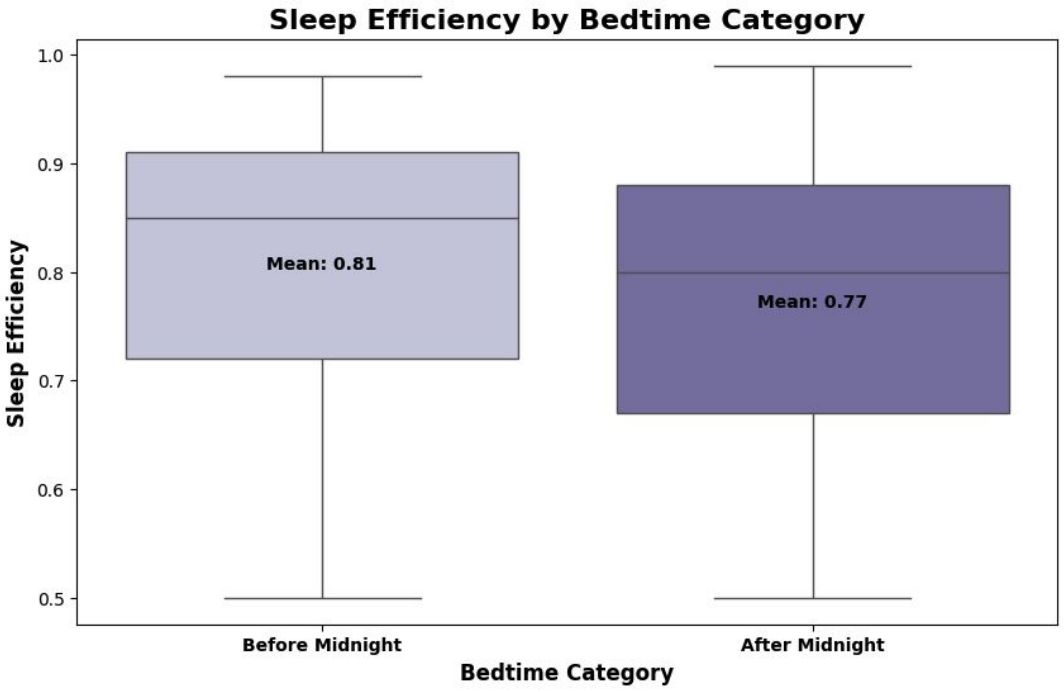




Lower alcohol consumption seems to result in a higher average sleep efficiency

- **Higher average sleep efficiency for non-smokers.**
- **Much higher volatility of sleep efficiency for smokers**

BEDTIME



AVERAGE SLEEP EFFICIENCY HIGHER FOR THOSE WHO SLEEP BEFORE MIDNIGHT

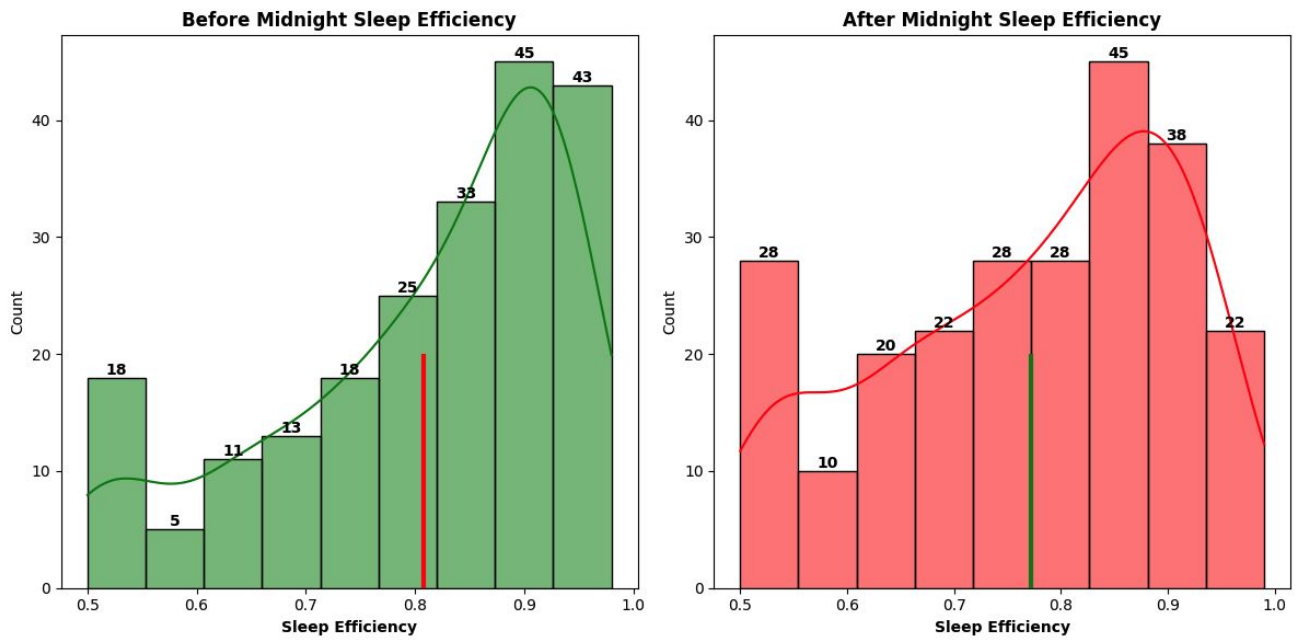
It is more likely for someone who sleeps before midnight to have more efficient night of sleep compared to those who sleep after midnight.

Samples

Before midnight = 211

After midnight = 241

INFERENTIAL ANALYSES PT. 1

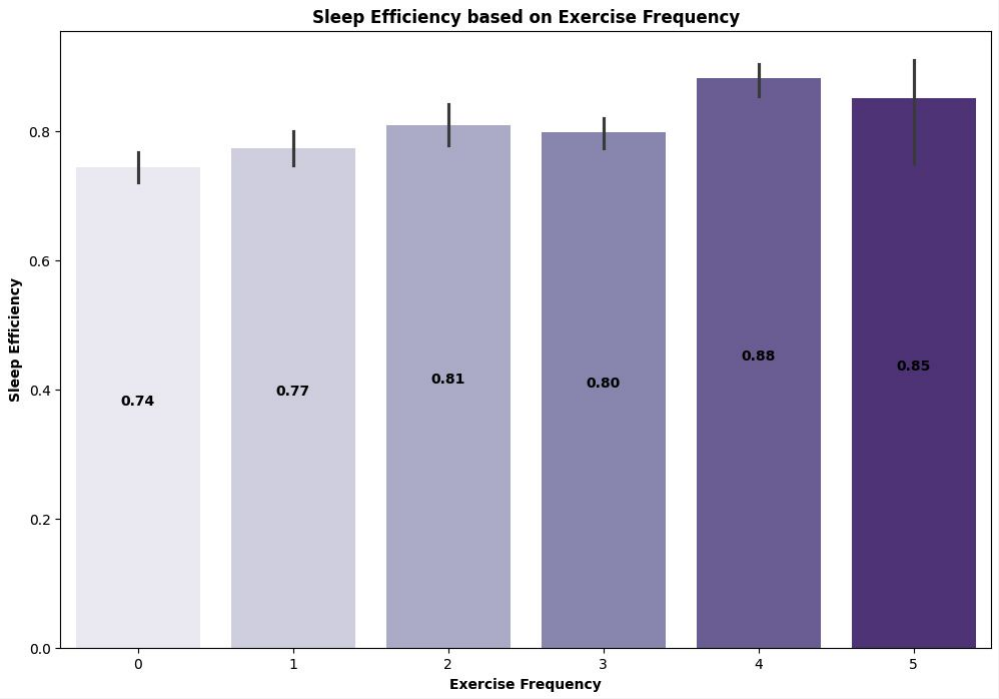


EVIDENCE HAS BEEN FOUND TO SUGGEST THAT THERE IS A STATISTICAL DIFFERENCE IN SLEEP EFFICIENCY BETWEEN THOSE WHO SLEEP BEFORE AND AFTER MIDNIGHT

Null hypothesis (H_0): There is no significant difference in the sleep efficiency between people who sleep before midnight and those who sleep after midnight.

Alternative hypothesis (H_1): People who sleep before midnight have higher sleep efficiency than those who sleep after midnight.

INFERENTIAL ANALYSES PT. 2



Null Hypothesis (H_0): The distribution of sleep efficiency is the same across all levels of exercise frequency (i.e., there is no difference in sleep efficiency between the groups).

Alternative Hypothesis (H_1): At least one level of exercise frequency has a different distribution of sleep efficiency (i.e., at least one group differs from the others in terms of sleep efficiency).

EVIDENCE HAS BEEN FOUND TO SUGGEST THAT THERE IS AT LEAST ONE LEVEL OF EXERCISE FREQUENCY WITH A STATISTICALLY DIFFERENT DISTRIBUTION OF SLEEP EFFICIENCY.

MAXIMIZE SLEEP EFFICIENCY

Bedtime

Aiming to sleep before midnight will likely improve sleep efficiency.

Smoking

Encourage removing smoking from daily routine could help improve sleep.

Less Alcohol Consumption

Lower alcohol consumption generally suggests higher sleep efficiency.

Exercise Frequency

Suggesting around 3 to 5 separate exercises throughout the day could help improve sleep efficiency.

THANK YOU FOR LISTENING

APPENDIX:

- https://slidesgo.com/theme/sleep-deprivation-symptoms#search-Sleep&position-5&results-45
- https://www.kaggle.com/datasets/equilibriumm/sleep-efficiency/data