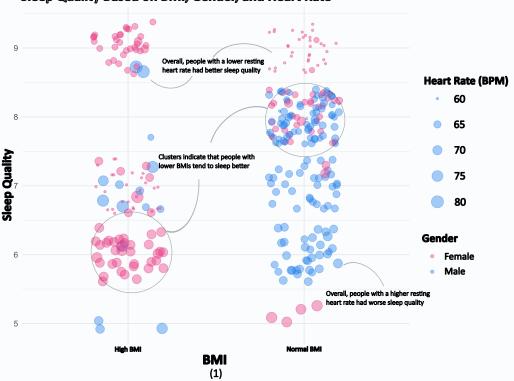
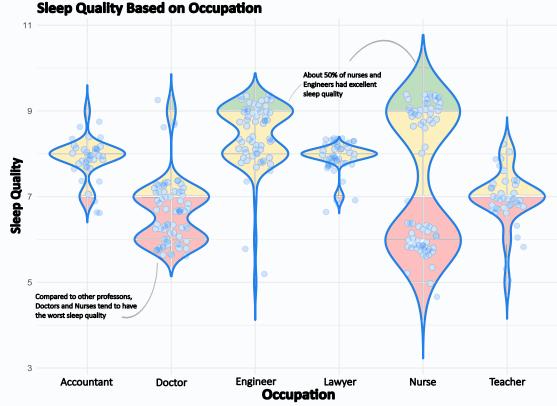
Source: Sleep Health and Lifestyle Dataset https://www.kaggle.com/datasets/uom190346a/sleep-health-and-lifestyle-dataset

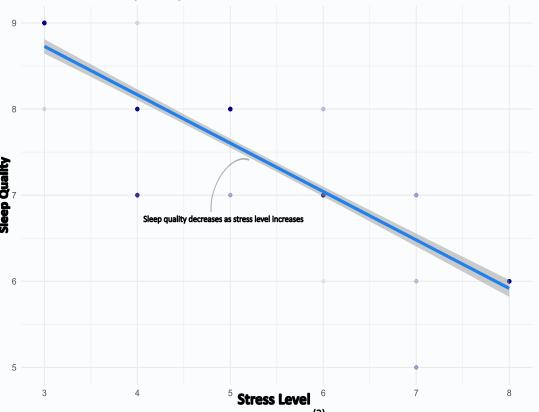
## Sleep Quality Based on BMI, Gender, and Heart Rate





(3)





## Sleep Quality Analysis

Sleep is essential to good health and certain lifestyle choices and habits have a detrimental effect on sleep quality.

In figure (1) the data is seperated between normal BMI and high BMI and the results indicate that people with a higher BMI tend to have less sleep quality. Women's sleep quality tended to be in the extremes while men's sleep quality was more spead out. Furthermore, people with lower heart rates had better sleep quality.

Figure (2) shows the overall trend of sleep quality as stress increased. Sleep quality and stress level portayed an inverse relationship, so stress management is essential for good sleep.

Figure (3) plots a violin plot for each occupation in the data set. As we can see in the graphic, around 75% of Doctors, 50% of nurses and 50% of teachers have below average sleep quality while 25% of nurses, 25% percent of engineers and 10% of doctors experience great sleep quality.