DSC 530

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Final Project

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Analyzing Sleep

Sleep is an important necessity for cognitive function. Are aspects of sleep such as duration and quality, determined by other aspects such as age, physical activity, heart rate, or gender? There were not outliers present in the data and no need for cleansing of the data. According to the analysis, there is a strong significant difference between quality of sleep and gender. The regression analysis showed that 26.9% of the variability in heart rate can be explained by sleep duration and age. When controlling for sleep duration and age, sleep duration has a statistically significant negative affect on heart rate. Sleep duration and age are also statistically significant predictors of heart rate. JB and Omnibus indicate that the data may not be normally distributed. I feel it is possible statistically significant relationships were not identified due to the limitation of variables. I feel as though sleep disorders and blood pressure could have been helpful in the analysis. When making the choice for variables, I chose the variables I assumed had the greatest possibility of affecting sleep. I also assumed that the subjective data such as quality of sleep was accurate. I also assumed that the uneven distribution of careers had little to no effect on the data. I felt as though the careers were not evenly distributed. There was a large amount of healthcare professionals who often work long and possibly overnight shifts which can affect not only quality, but also duration of sleep. I also assumed that physical activity level was in direct correlation with the number of daily steps. I was challenged with

remembering all the key aspects of some of the analysis. However, I believe that with time and use that will improve.