**What impact does opioid usage have on American college students' ability to sleep?**

We have a data set that gives American college students information. In this part, we are going to show the relationship between the impact of opioid use on American college students’ sleep ability. We have so many variables in this data set.

**Dependent variables**

Variable name Variable label

N3Q13 Time to fall asleep

N3Q14 last 2 weeks, Average sleep per weeknight

N3Q15 last 2 weeks, Sleep - Have an extremely hard time falling asleep?

N3Q16D last 7 days, Sleep - Get enough sleep so that you felt rested.

**Independent variables**

Variable name Variable label

N3Q22B11 last 3 months, frequency of substances used Prescription Opioids ( morphine )

N3Q22I last 3 months, Opioids prescribed

Now we run the multivariate regression to see the effect of opioid use on American college students’ sleep ability. Here,



**Result**

Based on the regression analysis results, it appears that there is a relationship between opioid usage and American college students' ability to sleep.

Specifically, the frequency of prescription opioid usage (morphine) in the last three months (variable N3Q22B11) is negatively (-.0245132) associated with the time it takes to fall asleep (variable N3Q13), the average sleep per weeknight in the last two weeks (variable N3Q14), and the difficulty falling asleep in the last two weeks (variable N3Q15).

This means that as the frequency of prescription opioid usage increases, it takes longer for college students to fall asleep. They have less average sleep per weeknight and experience more difficulty falling asleep.

Additionally, the frequency of prescription opioid usage is positively ( .3882723 ) associated with the likelihood that college students will get enough sleep to feel rested in the last seven days (variable N3Q16D).

This means that as the frequency of prescription opioid usage increases, the likelihood that college students will get enough restful sleep also increases.

However, it is important to note that the coefficient for the variable N3Q22B11 is not statistically significant (p=0.659> 0.05) for the variable N3Q13, which means that the relationship between opioid usage and the time it takes to fall asleep is not statistically significant.

Overall, these results suggest that opioid usage negatively impacts American college students' ability to sleep, which could have negative consequences on their academic and personal lives.