

Caitlin and I worked as a team throughout ND612 doing our research paper, but we worked through a lot of possibilities of what our paper should be on. We first thought of the idea of caffeine but while we were doing our preliminary research, we found that caffeine is consumed in many different ways and trying to do a study with all these types was achievable but with the time and research we had to we decided to focus on drinkable caffeine. So, our research paper examined the effect of caffeine on sleep quantity, quality and efficiency and we also learned that our cohort does not consume as much caffeine as I would have thought. When doing our systematic review with several studies on sleep disruption, caffeine dosage and its effects, the effects on adolescents helped us better understand the way caffeine can affect the body and more importantly sleep. We found that caffeine prolonged sleep latency, reduces the total time of sleep, negatively affects the perceived quality of sleep and which groups could be more affected by caffeine. We wanted to include a lot more findings, but they were not truly relevant to our study but very interesting especially for our class to learn. We also found that caffeine even in small doses (100mg-200mg) this is small to me but the average dose for most people, it can exacerbate many issues in groups that are more vulnerable, which would include shift workers and adolescence. I knew a lot of these effects before starting this research project but learning about the studies was very interesting.

Although this was on the effects of caffeine has the several factors, we also learned about how the mechanisms like adenosine receptors, genetics, timing, and demographics all play a role in the recommendations for the public was formed regarding caffeine consumption. However, every country is different, for example, Canada has a mandate that includes the limitation of caffeine drinks over 200mg for public safety. While we did to a research paper around caffeine, we didn't just learn about the nutrition side of things, but we also learned a lot more of data and

how to parse through it all and how to work SPSS. I have taken a research psychology class in my undergrad, where I had to use SPSS and run analytics, but this was about 7 years ago. I want to add that we didn't necessarily run SPSS ourselves but a program just like this with the help of our professor where we spent over 2 hours taking our data and learning how to utilize this course to get our final data sets. I enjoyed this type of learning and doing analytics because in the past it was a play with it and understand how to do it, but with this research paper, we got a hands-on approach with mentorship that not only allowed us to get the data but also understand it.

While we already know that we should take one study with a grain of salt and look for more data, doing this paper made this clearer. While reading through the literature, we found conflicting studies and by taking all the studies and considering everything and using our statistical analysis it came clear there is an effect but just like MNT it should be tailored to the person.

While we learned a lot about the nutrition science side of things related to caffeine, we also walked away from the paper with a profound understanding of analytics and data driven methods to help us better understand outcomes from studies and not to just read the results but rather take a deeper look into that the findings and data actually means for the findings. I think having this format within the class where we not only did the requirements but also spent hours with one-on-one sessions with the professor outside of class to learn about the background side of things and to be able to record the session and go back after and do our research project with ease. The most challenging part of this study was the analytics but after the session I mentioned above I think it helped us not only for the class but for our future careers and to better understand the research and analytics side of not only nutrition but studies themselves.