Grade: 98 Alexandria Boyd

Psych 350 Project 2 Paper

For this project, the three variables that I selected to study about myself were stress, sleep, and mood. More specifically, I asked myself questions pertaining to how stressed I felt at a certain point in time, how much sleep I got the night before, and how I was feeling overall at that point in time. I selected these variables because I knew that these three things are the most important factors that determine my psychological state, especially when external factors such as school work, my job, and my student organizations come into play. I also figured that all three of these variables would be interdependent of each other; I figured this would be true because I know that whenever I am stressed, I usually don’t sleep as much and that usually ends up having a negative effect on my mood. Of course, any of these factors could be the catalyst for the others to be positively or negatively affected, it just depends on what is going on in my life at the time that determines from which factor the domino effect originates. Nonetheless, I know that these factors always play a big role in determining how my day (or even my week) will go, so this is the reason why I chose them.

For my first variable (stress), I decided to assess it by creating a module with four statement. The stress module was assessed in a continuous way, as each statement would require one to respond with Strongly Agree, Agree, Disagree, and Strongly Disagree (a rating scale). The statements were as follows: 1. I have been feeling very stressed out today, 2. I feel pretty organized and on top of things currently, 3. I have been feeling extremely overwhelmed lately, and 4. there is not enough time in the day. I chose this method because I felt that this would be the easiest way to assess stress, because the level of stress that a person experiences is not always cut-and dry (either I’m stressed or not stressed). Rather it is a variable that has requires a continuous scale in order to accurately measure that stress level. For my second variable (sleep), I decided to use a binary method to assess the amount of sleep I received at each point in time. For this module, three statements: 1. I got at least 7 hours of sleep last night, 2. I feel well rested, 3. I need a nap. Each statement would require a response of Yes or No. I chose this binary method of assessment because I feel like, for me at least, being tired is something that I either definitely am or definitely am not. Although I must admit that I do feel tired most of the time (even when I do get a lot of sleep), I know that when I answered this module I was thinking of it in terms of either I was extremely tired or not tired at all (or feeling well rested). For my third variable, which was mood, I created a module with 4 statements. Again, this used a continuous assessment method (similar to the one I used when assessing my first variable), with the responses being either Strongly Agree, Agree, Disagree, or Strongly Disagree. The statements used in this module were as follows: 1. I feel excited, 2. I feel sleepy, 3. I feel hungry, and 4. I feel sad. This variable is also something that I thought would be smart to assess via a continuous scale, because the level of each emotion I felt could correlate with the level of stress that I was experiencing at that same point in time. I thought that, by assessing these two variables the same way, the correlation between the two would be much more clear and would the data would (hopefully) match up for each day that I took the module.

When I created the first module for the Stress Assessment, I made the values for each response as follows: 1=Strongly Agree, 2=Agree, 3=Disagree, 4=Strongly Disagree. With that being said, the mean score for the stress variable during the 15-day span of data was 2.25. This means that, on average, I chose “Agree” for most of my responses to the statements assessing my level of stress. The calculated standard deviation for this set of data was 0.91. This result was not very surprising to me, because most of the data I collected throughout the 15 days was during spring break and the week right after spring break, and I know for a fact that I was pretty stressed the majority of that time, especially because I was worried about a test that I needed to study for and tasks that I needed to accomplish for my sorority. The standard deviation is not surprising either, because there were random times throughout the 15 day period when I was extremely stressed (such as on March 29th when I pulled an all-nighter so that I could study for an exam) and there were times when I was not stressed at all (such as when I took a vacation to Atlanta during the weekend before Spring Break). This would explain the large spacing of the standard deviation (.91), because it means that my scores would deviate to “Strongly Agree” (1.34) at times, and it would also deviate to “Disagree” (3.16) at times.

For my second variable, which is sleep, the values for each response was 1=No and 2=Yes. After making calculations, I found that the mean for this set of data was 1.58, and the standard deviation was 0.50. That means that the majority of the time during the 15 day period, I answered “Yes” to the module questions, which meant that I felt pretty well rested overall. This also was not surprising to me, because as I said before most of the data was recorded during Spring Break when I was sleeping in and resting. But I also did have times when I did not sleep at all (like when I pulled that all-nighter) or got very little sleep, which would explain the 0.5 standard deviation.

My last module was assessing my mood, which was the third variable used for this project. Since I also used the continuous method to assess this data, I used the same data equivalents for each response (1=Strongly Agree, 2=Agree, 3=Disagree, 4=Strongly Disagree) as I did with the first module. After making the necessary calculations, I found the mean for this set of data (during the 15 day period) to be 2.35 and I found the standard deviation to be 0.73. This means that, most of the time when I was responding to the statements in the module, I would agree with them. This was a little surprising for me because I didn’t really know to interpret the data, especially because the questions are all very different. So if I said yes to feeling excited, sleepy, and sad, I’m not sure how I would interpret those results. My feelings are the same for the result of the standard deviation, because I’m not sure which question the deviation would specifically apply to.

The plots that I have created for all three variables are pictured below:

As far as the Stress Assessment data goes, I feel that there wasn’t much of a consistent pattern going on throughout the entire 15 day period. I did, however, see some patterns during different chunks of time (specifically when I would experience a major life event). For instance, from March 16th to March 20th, it seems that I consistently did not feel stressed or overwhelmed at all. This could be attributed to the fact that that was the same weekend that I took my vacation to Atlanta. Contrarily, from March 27th to April 2nd, I experienced significantly higher levels of stress and felt like there was not enough time in the day (which is probably attributed to the fact that I was cramming for my exam during most of those days). The sleep assessment graph also exhibited similar results, although that graph had a little more consistency than the stress graph. For example, although it is hard to see on the actual graph, I know that I consistently got at least 7 hours of sleep from March 21st to March 27th. This would make sense because that was basically the entire week of Spring Break, so it makes sense that I would be able to sleep in during that time. Also, the fact that I needed a nap was pretty consistent throughout the entirety of the 15 days as well, and I would attribute that to the fact that I always feel tired (even when I do get to sleep in). The mood assessment graph probably shows the least consistent results, and I think this is because the statements that were asked in the modules were so different from each other. There were, however, some pretty consistent patterns. For instance, I didn’t really feel sad at all until March 27th, which was the night before school was resuming after a fun and relaxing Spring Break. Other than that, I couldn’t really find a pattern that was consistent enough to mention for this project.

The correlation between stress and sleep seemed to be fairly high; the calculated correlation coefficient that I found was r=0.43. According to Cohen’s Standards, this correlation has medium strength. The correlation coefficient between stress and mood was r=0.27. This means that the correlation between my stress levels and my mood correlated positively, and according to Cohen’s standards this was a small (almost medium) strength correlation. The correlation between sleep and mood, however, came out to be r=0.38. This, according to Cohen’s standards, is also a medium strength correlation, and it shows that there is a positive correlation between the amount of sleep I get and my mood on a daily basis.

Because of this project, I learned that quite a few of the assumptions that I have made about my own personality are correct. The positive correlation between my sleep levels and my mood is something that I have definitely noticed, because when I am extremely tired or sleep-deprived I tend to either cry or quickly get an attitude about the littlest things, which leads to my mood not being as great as I would like it to be. The fact that my stress and sleep levels are positively correlated with the strongest correlation strength out of all of the other combinations was quite surprising and unexpected to me. I never really realized that, as my lack of sleep increases, my stress levels increase as well (and vice versa). I think this can be attributed to the fact that, when I am stressed out, it is usually because I have to get a lot of work done in a little bit of time, which usually leads to me staying up late and losing precious hours of sleep in order for me to get these things done in a timely manner. But when I referenced the graphs once again, I did notice that the dates that I consistently felt rested (March 19th through March 21st) did positively correlate with the fact that I did not feeling stressed or overwhelmed during those same days. However, I do know that correlation does not mean causation, and that other outlying factors could have contributed to these outcomes. Regardless of that fact, it was definitely really interesting to see how different variables or factors in my life are interconnected with each other and produce a specific outcome!

**Data Collected (My data was collected manually due to technical difficulties)**

**Stress Module**

3/16/16: 1, 4, 1, 1

3/17/16: 3, 2, 3, 2

3/18/16: 4, 2, 3, 2

3/19/16: 2, 1, 2, 1

3/20/16: 1, 2, 1, 2

3/21/16: 3, 2, 2, 3

3/22/16: 4, 3, 3, 2

3/23/16: 4, 3, 3, 2

3/24/16: 2, 3, 2, 2

3/25/16: 3, 3, 2, 3

3/27/16: 2, 3, 2, 2

3/29/16: 1, 4, 1, 1

3/31/16: 1,3,2,1

4/2/16: 4, 2, 2, 1

4/6/16: 2,2,3,2

**Sleep Module**

3/16/16 2,2,1

3/17/16 1,1,2

3/18/16 2,1,2

3/19/16 2,2,2

3/20/16 1,2,1

3/21/16 2,2,1

3/22/16 2,2,1

3/23/16 2,1,2

3/24/16 2,2,1

3/25/16 2,1,2

3/27/16 2,2,2

3/29/16 1,1,2

3/31/16 1,1,2

4/2/16 1,2,1

`4/6/16 1,1,2

**Mood Module**

3/16/16 2,3,2,3

3/17/16 1,1,3,3

3/18/16 2,2,3,4

3/19/16 1,2,2,3

3/20/16 2,2,3,2

3/21/16 3,2,2,3

3/22/16 3,2,3,3

3/23/16 3,2,2,2

3/24/16 2,3,3,3

3/25/16 3,2,2,2

3/27/16 2,3,2,1

3/29/16 4,1,3,2

3/31/16 3,2,1,2

4/2/16 2,3,2,3

4/6/16 3,1,2,3