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Data Wrangling Writeup

The dataset was first subsetting to include only the relevant variables to answer the overall question: how does ASMR affect mental and emotional health? To reiterate and give context, ASMR is a tingling bodily response to visual or auditory stimuli that is generally considered relaxing or calming. It's important to know the context for why participants would choose to watch ASMR videos, and what types of effects may exist by watching these videos. Therefore, the variables that were relevant included data of: the scores measuring levels of depression and anxiety, putting the participants into three groups of varying depression levels based on those scores, any chronic illnesses participants may have, participants' viewing habits with ASMR videos, and the effects of those ASMR videos on the mood, mental and emotional health of participants. Next, the column names of the variables were changed in order to provide more detail or clarity on what the variables represent. After renaming the variables, some of the variables were converted from the numeric type to character type since those numeric vectors were categorical variables that can be represented by using character values. In general, vectors that were initially numeric that were then changed to categorical variables were for the purpose of better representing "Yes" or "No" data, to provide category names, or to change values of 0 to NA values. For the numeric variables, the mean and standard deviation were chosen because the data does not have any outliers, since there is a specific range of what the values can be for all numeric variables. All were grouped by the "BDI_group" to better answer the overall question. For the categorical variables, a frequency table was used only for the "Illness_Type" variable since it would make sense to pick out the chronic illness with the highest frequency and connect it to the idea of how chronic illnesses may affect mental and emotional health across all participants. However, it also made sense to use a two-way table with the "BDI_group" and "Illness_Type" variables to see how the chronic illnesses with the highest frequency are related to groups of varying depression. For the rest of the categorical variables, most of them pertained to how ASMR affected the participants. Only two-table summaries were used to group these with the "BDI_group" variable since the frequency data of the other categorical variables alone do not hold meaning when answering the overall question.

After data wrangling, it was found that the BDI and BAI total mean score was the highest for the group with the highest levels of depression, and lowest for the group with the lowest level of depression, with the middle being the group with mild depression. This is expected as the BDI and BAI score measure the levels of depression and should increase as the score increases. The standard deviation of the BDI and BAI score were highest for the highest depression level group, lowest for the mild depression group, and with the lowest depression group in between. This means that within the group of the highest depression levels, there is a wider range of moderate to severely depressed or anxious participants in this group. The mean mood before watching ASMR videos is lowest for the group of highest levels of depression, and highest for the group of lowest levels of depression, with the mild depression group in between. The standard deviation for this variable is higher for the group with the highest levels of depression, which is expected since this group contains participants of more varying levels of depression compared to the two lower groups. The mood of the participants after watching ASMR videos decreases as the time after watching increases, but the mean is consistently highest for the group of lowest levels of depression, and is lowest for the group of highest levels of depression. The standard deviation for the variables pertaining to the mood of participants is highest for the group of highest levels of depression, lowest for the group with little to no depression, and the middle group is in between. This makes sense since the group with the highest levels of depression have more varying depression levels and therefore would have more varying moods. For the chronic illness variable, the most common type related to the brain are migraines. This could mean that with migraines being more common, issues with depression and anxiety become more prevalent among individuals. The majority of all groups watch ASMR videos before sleeping. In regards to the variables that categorize the participants in levels of agreement to statements representing how they feel when watching ASMR videos, all of the groups share similar traits of how they feel when watching -- most are focused on watching, focused on how they feel, and feel at ease and stable. The mildly depressed and highest levels of depression groups mostly said that ASMR videos improved their sleep quality, but

not for the group of lowest levels of depression. The majority of all groups watch ASMR videos to relieve negative mood, enjoy asmr videos overall and even without the full experience of ASMR sensation, and to relax. The bulk of the lowest and highest levels of depression groups watch to deal with anxiety, but the group in the middle was split between neutral and fully agreeing to that statement. Also, almost all of the groups watch to deal with stress and help them sleep. Most of the group with the lowest levels of depression do not watch to deal with depression. On the other hand, the mildly depressed group somewhat watches ASMR videos to deal with depression, while the majority of the group of highest level of depression watch to deal with depression.