ADHD Diagnoses in Children post COVID-19

DSC530 Term Project

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The hypothetical question I chose to research was: There was no significant change in the post-COVID-19 in the number of children diagnosed with ADHD. This stemmed from the Drug shortages that started in 2023 for medication used to manage ADHD. I had done a smaller study on this data, consisting of data from 2016 to 2023, and saw some trends I wanted to research more. The data for this study comes from the National Center for Health Statistics yearly National Health Interview Survey. This survey was conducted back in 1963. I reviewed survey results from 2005 to 2023 for this study.

For the most part, I was able to disprove my hypothesis. There are two key pieces of data: the first was the chi-squared test, and the second was the PMF being diagnosed for each year of the survey. Both tests showed that the probability of being ADHD did change after COVID-19 started.

I could have done a better job of using the weighted values for every complete analysis. I just wasn’t sure how to transform the value each time. I also should have spent more time with demographic variables. It would have been interesting to see the effects of, say, family income or parental marriage status on the results. I also would have liked to take the time to plot out predicted values for pre-COVID-19 and post-COVID-19 Data.

I ran into several challenges during the process of my EDA. The first deals with 18 years of survey data. They can change the survey slightly yearly and have major updates every 5 to 10 years. It took a lot of time to ensure that I was pulling data from the correct columns and ensuring that they were encoded the same from year to year. I had to back and fix my code to load the data several times through this process.

I also had trouble finding enough noncategorical data elements to satisfy the assignment requirements. Sadly, this did not click for me until after I spent a lot of time creating the dataset. However, I was able to get enough elements.

When it comes to what I don’t understand, I feel bad and just want to say all of it. I feel a little better after completing the assignment on the when and why to use things. The part I’ve been having difficulty latching on to is the way. I don’t feel the book explains that very much or just missed it. These are topics I plan to spend time working on in the future.