**Group 7**

**Group Project Proposal**

**Group Members**

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**Group Project Title**

Sleep Apnea and Hypertension as Predictors of Depression Risk in the Population

**Data Collection Plan**

We did an extensive dataset search on the Google Dataset Search website and IEEE DataPort. The dataset encompasses information about depression risk and was downloaded from the National Health and Nutrition Examination Survey (NHANES). Data was pooled from the 2005-2020 study cycle [1]. There are a total of 28 .csv files containing information on participant demographics, depression, sleep disorder, and hypertension. Data was collected with informed consent from participants using structured questionnaires framed by NHANES. The combination of these descriptive-analytical cross-sectional studies conducted across the US is used in our study. We will extract the required data from each .csv file for our analysis.

**Community Contribution**

Studying how sleep apnea and hypertension might relate to depression can truly make a difference in our communities. First off, it raises awareness about how these health factors can impact our mental well-being [2]. When people understand the potential links between these conditions and depression, they're more likely to take proactive steps to care for their health. Additionally, the insights gained from this research can guide hospitals in offering more comprehensive care. By recognizing the correlation between physical and mental health, healthcare providers can offer more personalized support to those dealing with sleep apnea, hypertension, and depression [3]. This consolidated approach means individuals get the care they need, and resources can be allocated more effectively, ultimately improving the overall well-being of our communities.

**References:**

[1] <https://wwwn.cdc.gov/nchs/nhanes/continuousnhanes/default.aspx?Cycle=2017-2020>

[2]

<https://www.frontiersin.org/articles/10.3389/fpubh.2023.1348803/full>

[3]

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0272330>