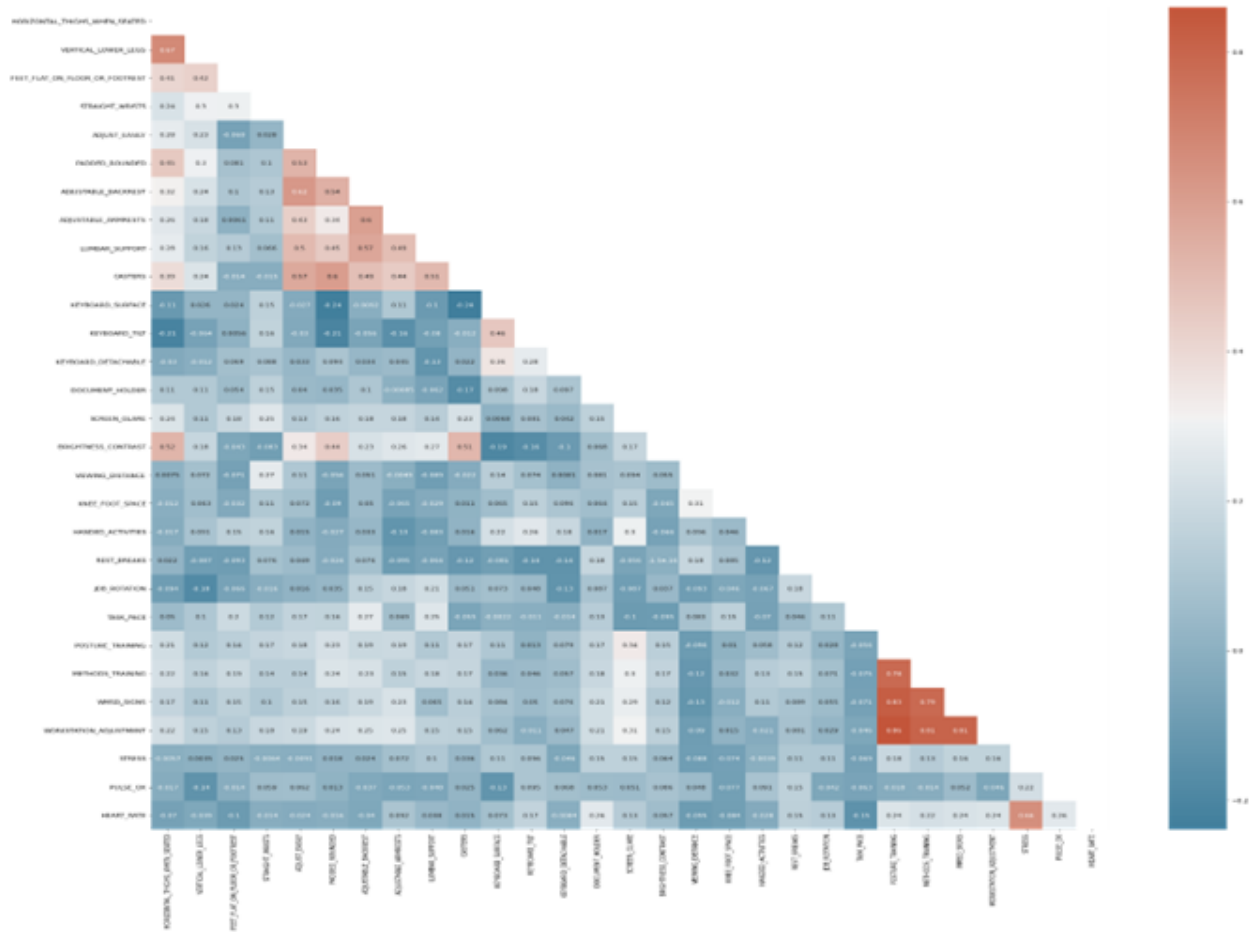
Team 2 WFH

Background

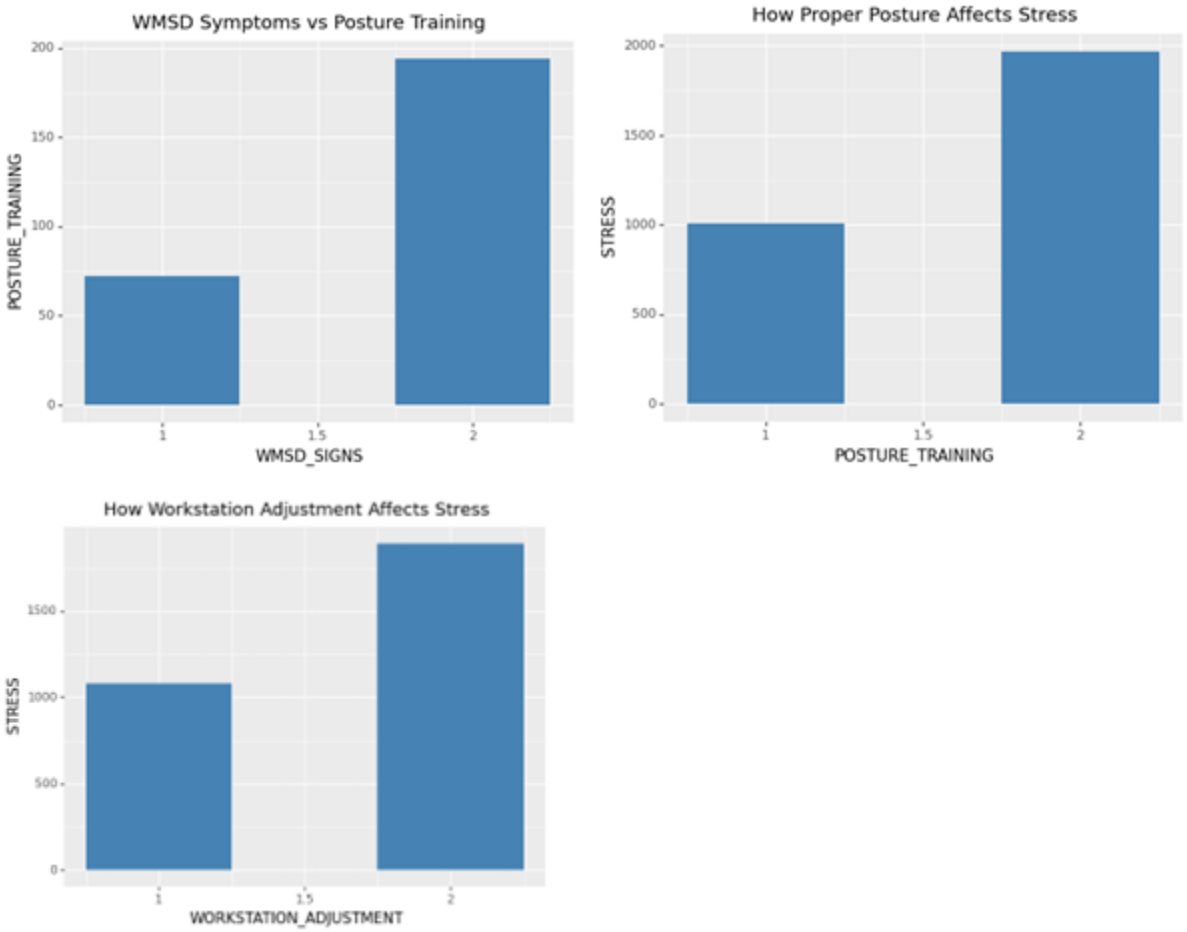
This study was conducted over the course of 6 months, where a total of 70 participants with full-time jobs worked remotely, using the computer at least 4 hours a day, and periodically recorded their progress. Participants were also given a Garmin watch to wear which “pinged” them three times a day to share information such as their current location, musculoskeletal discomfort, and the number of breaks they took. This project aims to study the effects of remote work on overall health, and any findings from the data given can potentially provide insight on the future of remote work.

Preliminary Analysis of Data Collected

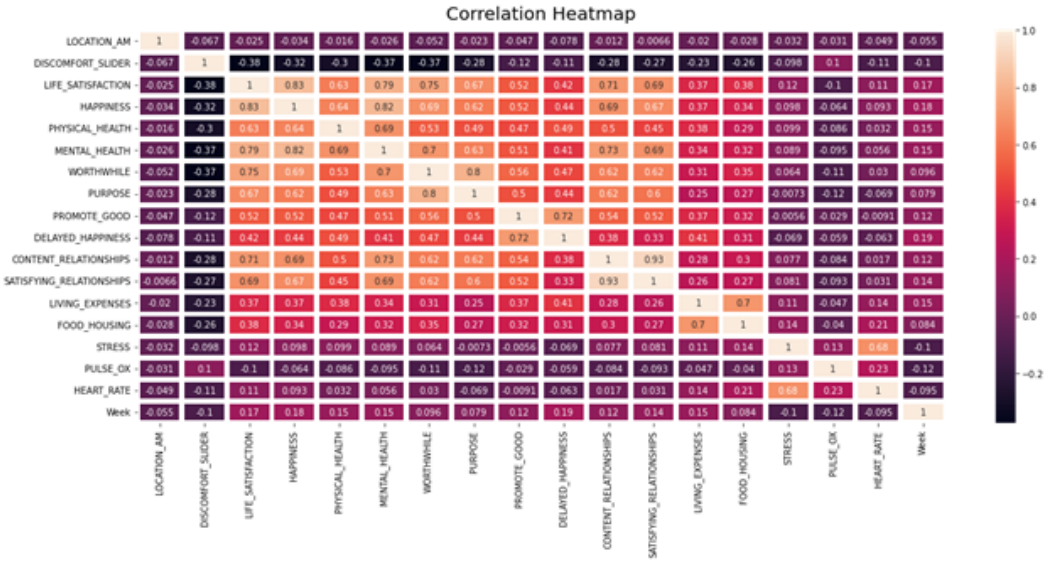
Our team collected data from the 6-month data for the final report. Based on information gleaned from correlation heatmaps of the Computer Workstation and Friday AM data, we found new correlations we decided to look into as to how these factors, in addition to the number of locations each participant worked each week, affected overall mental and physical health.

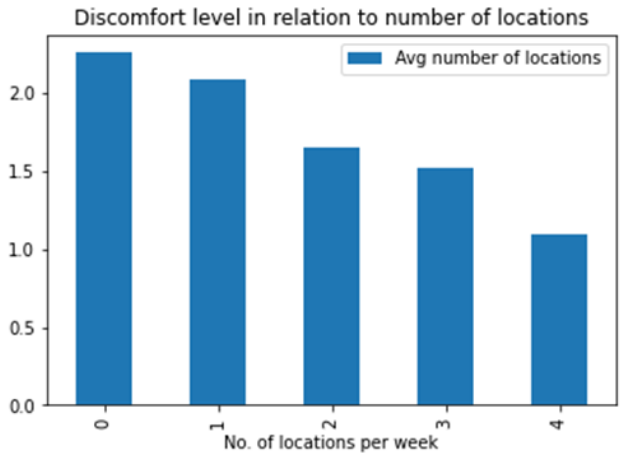


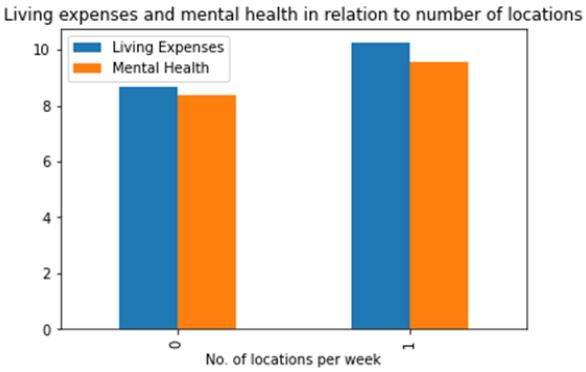
Shown above is the correlation heatmap used to analyze the Computer Workstation data. We found that posture_training, methods_training, wmsd_signs (Work-related Musculoskeletal Disorders), and workstation_adjustment (where workers were taught when and how to adjust their workstations to avoid musculoskeletal discomfort) were closely related and plotted it against information about stress to see how the presence of these types of practices and symptoms affected it.



In all three barplots, where 1 is “True” and 2 is “False” for the presence of signs or prior training in proper posture and work methods, we can see that stress tends to be lower when the worker did receive proper training and higher when the worker did not receive proper training.







We also took a look at how living expenses played a part in relation to the number of locations and the participants' mental health. Both the mental health and the living costs of the participants increased as the average number of locations increased. However, mental health did not increase in proportion with living costs, implying that living costs do have an effect on mental health along with the number of average locations.

In general, it seems that working from home decreased the overall health of the participants as they have less mobility working from home.

Challenges Faced

There are a couple limitations with our analysis as we have not yet considered the age and occupation of the participants and it is extremely likely that these factors also play a significant role in their health. We would like to take these into consideration moving forward. There are an innumerable amount of factors that play a role in the overall health of people and it would be impossible to take all of them into consideration but we would still like to focus on how the number of locations affect the health of the participants. For the final report, we plan on finalizing our exploration on the hypothesis that we have been working on and examining how demographics data such as age and occupation relate to the aforementioned data we analyzed and determining whether certain participants in age ranges or occupations are more susceptible to general health deficiencies.