

The Relationship Between Green Spaces and Mental Health in New York City



INTRODUCTION

During the pandemic, mental health concerns became more relevant, since people weren't allowed to leave their houses for long periods. This limited social interaction and exposure to the environment, and our team "...explored [...Urban Green Spaces and how it effects during ...] stressful events on health."(Science Direct, 2023). The purpose is to further investigate whether there is a positive/negative association between stress levels and exposure to green spaces.

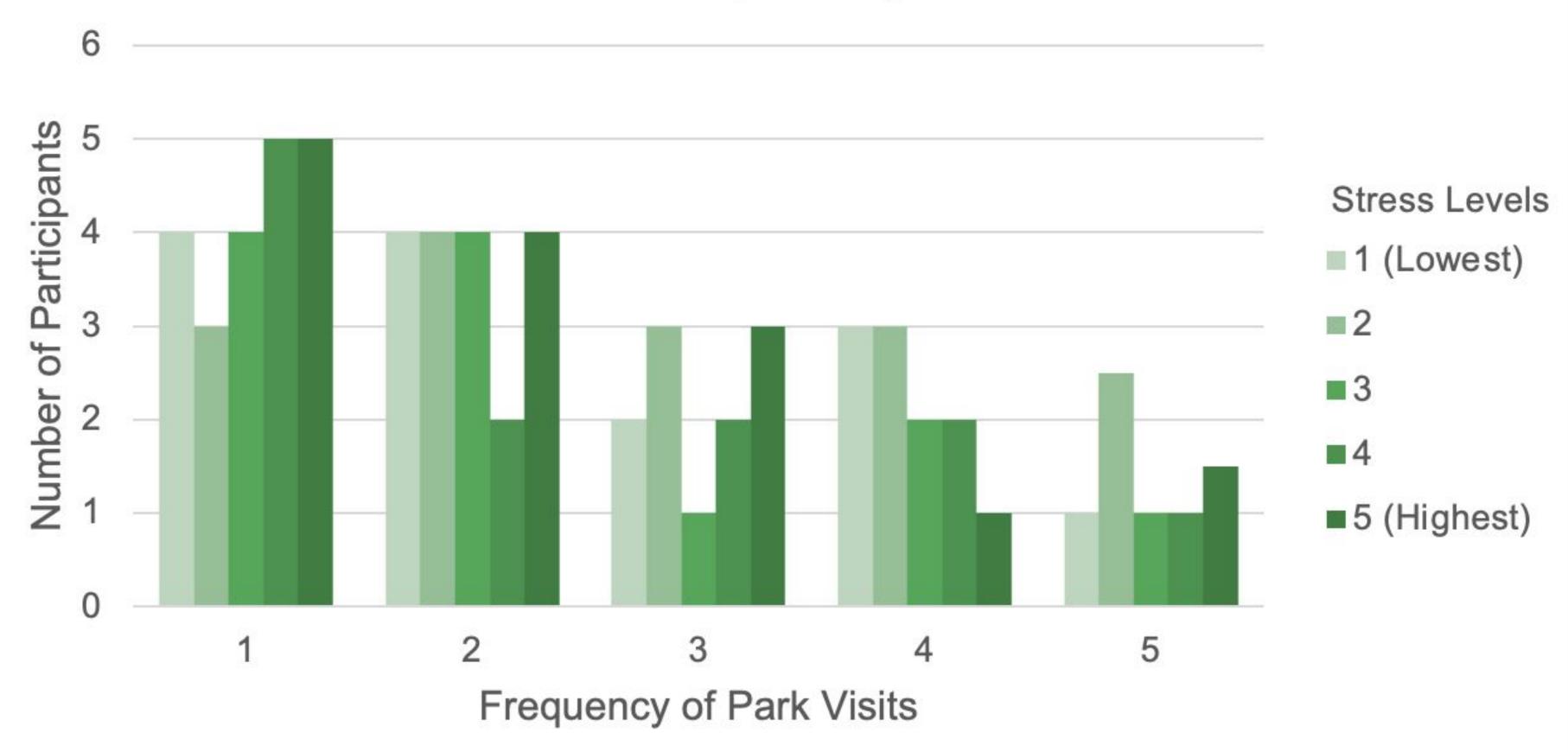
METHODS

We created a google survey to residents of the five boroughs. The sample size was 25, and had questions about stress levels and time spent in green spaces. We generated three groups with different means of mental health scores: low, medium and high exposure to green spaces. We used the ANOVA test and input these groups into the test to find a p-value, which represents the significance of our data. The purpose of using the ANOVA test is to find the association in stress levels.

RESULTS

The ANOVA test gave us a p-value of 1.62x10^-11. This proves the alternative hypothesis that the correlation between green spaces and mental health is positive. NYC residents enjoy being in green spaces to escape the busyness and stress of the city. Residents feel mid-to-high levels of stress, but exposure to green spaces helps maintain their stress levels.

Comparison of Stress Levels and Park Visit Frequency



FUTURE RESEARCH

A study with a larger range of participants from all five boroughs of NYC would be more effective in achieving concrete results. A more intensive observation would also allow us to see the accurate amount of time spent in green spaces. This would create a better statistical model to prove that there is a positive correlation with the relationship between green space and its effects on mental health.

CONCLUSIONS

Our group concludes that there is a negative association between green spaces and NYC residents' mental well-being. The survey illustrates how those who experienced mid-to-high stress levels find the presence of green space makes them feel more calm and relieved.

REFERENCES

- Barton, J., & Rogerson, M. (2017, November 1). *The importance of greenspace for Mental Health*. BJPsych international. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5663018/
- Boys & Girls Club of America. (n.d.). *Mental health & covid-19: What parents and caregivers should know.* Boys & Girls Clubs of America Providing millions of kids and teens a safe place to develop essential skills, make lasting connections and have fun. https://www.bgca.org/news-stories/2020/May/Mental-Health-COVID-19-What-Parents-and-Car egivers-Should-Know?&c_src=idm_cm_googleads&gad_source=1&clid=CjwKCAiAjrarBhAW EiwA2qWdCNsOYsUdXzTB8b_t2TgP5BP5pNEMrZcMD-sMDHpDlRT9sAAdcpsy7BoC_5QQ
- Hwang, T.-J., Rabheru, K., Peisah, C., Reichman, W., & D. (2020, October).

 Loneliness and social isolation during the COVID-19 pandemic. International psychogeriatrics.

 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7306546/

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Mustafa, A., Kennedy, C., Lopez, B., & McPhearson, T. (2023, September 28). Perceived and geographic access to urban green spaces in New York City during COVID-19. ScienceDirect. https://www.sciencedirect.com/science/article/pii/S0264275123003840

