

The Relationship Between Green Space Exposure and Self-Perceived Stress

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INTRODUCTION

The purpose of this study was to determine whether there is any association between high school students' exposure to green space and their self-reported stress levels. There is a lot of evidence from diverse fields showing that exposure to nature can yield numerous health benefits (Kaplan, 1995; Ulrich, 1984; Ulrich et al., 1991).

In general, green spaces have the capacity to help people feel less crowded. Since high school students spend much time in small spaces with lots of people, green and open spaces might be a relaxing retreat. It was hypothesized that students who are exposed to green space more frequently will report lower levels of stress than students exposed to less green space.

METHOD

Twenty-two BASE students (12 females, 10 males) participated in this study (Age: ...)

Green Space Exposure

Green space exposure was assessed by a questionnaire developed by class consensus. It measured several factors, such as the number of plants and windows in one's room and one's home, the distance between one's home and a park/green space, etc. Participants also reported on how frequently they visit the nearest park/green space, how much they enjoy green space, and whether their commute passes through green space on a 6-point Likert scale ranging from 1 (*Never*) to 6 (*Always*).

Self-Perceived Stress

Through class consensus, stress was measured also measured on the 6-point scale, including questions such as

Do you become upset by unimportant things?

Do you find it difficult to relax?

Do you find yourself in a state of nervous tension?

How often do you feel like you cannot cope with what is happening in your life?

Demographics

Participants also reported on their number of siblings, their amount of exercise per week, and a few other variables.

RESULTS

Correlational analyses showed that there were significant relationships between the following variables:

Number of plants in one's home & stress

($r = -.508, p < .05$)

Green space commuting & stress

($r = -.697, p < .01$)

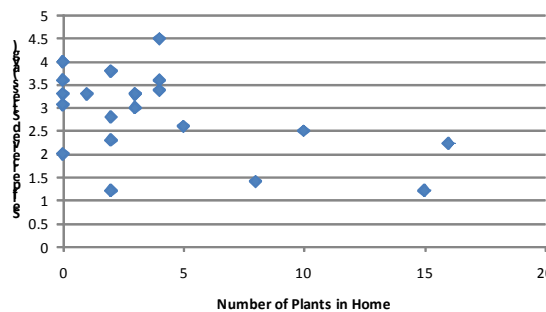
Number of siblings & how much one enjoys green space

($r = .452, p < .05$)

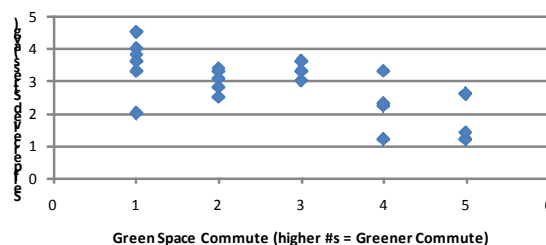
Green space commuting & number of plants in one's home

($r = .590, p < .01$)

The Relationship between Plants in Home and Stress



Relationship between Green Space Commute & Stress



DISCUSSION

The purpose of this research was to learn whether green space and stress are related to each other. It was hypothesized that more exposure to green space would be associated with lower levels of stress. The results showed support for our hypothesis. In particular, we found that the number of plants people had in their homes and whether they commuted through green space or not was significantly related to lower levels of self-perceived stress. The data also showed that people who commuted through green space had more plants in their homes than those who did not commute through green space on a daily basis. Results also revealed that individuals with more siblings had a greater appreciation for green space.

Future research should use experimental methods for exploring the affects of green space on stress. For example, will students fill out stress surveys differently in different environments? Will they feel differently about others as well?

The study suggests that high schools should consider developing green and open spaces for their students to help them reduce their stress levels, which might also improve their learning.



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