

CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s)

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Project Number

S0418

Project Title

The Effect of Stress on Impulsivity Levels in Adolescents

Abstract

Objectives/Goals

The objective of this study was to learn about whether or not students who were stressed, whether it be about money or school, would also have higher delay discounting rates, or impulsivity levels.

Methods/Materials

A two part questionnaire was administered to 49 juniors and seniors at a local high school. The first part of the survey asked the students to rate how stressed they were on a scale of 1-10 when it came to school, GPA, college, etc. The second part of the survey was the Kirby monetary choice assessment (1999), which helped to give students a k-value, or disocunt rate parameter. The higher the k-value, the more impulsive the individual.

Results

After analyzing the data, a significant Pearson r correlation was found between the students that were stressed, and delay discount rates, or k-values. Therefore, students who claimed to be more stressed in their daily lives also tended to have higher impulsivity levels. Another positive correlation was found between students who were stressed about money and higher k values.

Conclusions/Discussion

My results supported my hypothesis because students that attested to having more stress in their lives also had higher impulsivity levels. This research is important because similar assessments can be used in real high schools to help students. Since high stress can be linked to being susceptible to high risk behaviors such as substance abuse, knowing which students are at risk is useful. This way, teachers and counselors can reach out to these stressed students and assist them.

Summary Statement

This project looked at high school students and their stress in order investigate their impulsivity levels, information that also tells us about whether or not individuals are susceptible to high risk behaviors.

Help Received

A class at the Center for Advanced Research and Technology allowed me to use their students as test subjects.