

CALIFORNIA STATE SCIENCE FAIR 2016 PROJECT SUMMARY

Name(s)

Anthony M. Howard

Project Number

J0413

Project Title

The Relationship between Exam Stressors and Eating Behaviors

Abstract

Objectives/Goals

The purpose of this project was to examine the association between academic exam stressors and executive functioning and negative eating behaviors.

Methods/Materials

Field Experiment: random test group; random control group; random nine-digit assigned numbers; verbal assignments; 30' marked walking path; interruption with choice of either Fuji apple or Hostess Cupcake offered

Results

In attempt to trigger exam stressors by overloading brain with long numbers to memorize, we interrupted test group while they walked along marked path from Experimenter A to Experimenter B and offered choice of healthy or unhealthy snack. My results were inconclusive and further research must be conducted. Of 15 participants in test group, only one chose the cupcake and two chose the apple. Of the control group, three chose apples and zero chose the cupcake.

Conclusions/Discussion

My results were inconclusive. I need to conduct experiment again with a larger group of random participants. I need to repeat experiment across unaccounted for variables, such as time of day, day of week, and geographic location. Further, I want to administer a questionnaire, such as The Three-Factor Eating Questionnaire-R18 (TFEQ), so participants can also self report.

I am passionate about this topic because childhood obesity is a dangerous and ultimately fatal epidemic. After the increase of standardized testing resulting from The No Child Left Behind legislation from 2001, to the implementation of Common Core, children and adolescents are experiencing more exam and academic stress than ever, however I don't see that adults in our society are doing enough to help them cope with the added stressors and anxiety these academic changes have brought. Obesity negatively impacts social relationships, self-confidence, health and academic performance. I feel strongly that more emphasis must be placed in helping students manage their physical and emotional responses.

Summary Statement

I hope to examine and bring light to the impact academic and exam stressors have on the childhood obesity epidemic in our country. Our education system must take greater ownership in the resulting disinhibitive eating behaviors.

Help Received

I designed my experiment myself. For lab assistants, I enlisted the help of my 22 year old brother, Garrett Thomas, his 19 year old friend, Morgan Minhall, and my mother, Victoria Howard. While researching, scientific method and best practices, I interviewed the following scientist and engineers: Mark