The symptoms of anxiety. researches have also

Nutrition

TheAffect of Sugar on Mood Introduction: Cansugar really make you happy? When sugaris consumed, then the mood will increase. When sugar is consumed, bloodsugar peaks.

Glucose, a type of sugar, helps provide energy for most cells inthe body. Nerve cells are included in that category. Nerve cells take up halfof the energy for sugar in the body. Therefore, glucose levels and brainfunction, like memory and learning, are very closely related. When the body’sglucose levels are low, energy is low. So, when sugar is consumed, then energylevels will increase. Increased energy levels will lead to a happier mood.

While doing this controlled experiment, 10 test subjects rated their mood on ascale of 1-5 before and after the consuming the sugar. An independentvariable is the object that isdifferent or changed between the experimental and control groups. It isthe factor the is being tested. It The independent variable of the experimentwas sugar.

The sugar used in the experiment was a Pixy Stix. One Pixy Stixincludes about 2. 14 grams of sugar. Sugar has been known to be harmful tomental health. Researchers have found when there is an abundant sugar consumptionthe risk of depression and other mental illness.

Sugar was also found to leadto addiction over time. It has also been found that sugar can worsen symptomsof anxiety. Researches have also found the sugar can decrease cognitivelearning abilities. Some of the cognitive learning abilities is decreases arememory and learning.

The sugar, when used in this experiment, will only begiven to the experimental group and not the control group. Adependent variable is the object thatis measured out of the experiment. it depends on the independent variable. Thedependent variable of the experiment was a mood scale. The mood scale measuredthe test subject’s mood before the experiment started and after it ended. Itwas a range of 1-5. The highest number, 5, on the scale represented thehappiest mood while the lowest number, 1, represented the saddest mood.

Themiddle number, 3, is expressed as neutral. However, number 2 on the mood scaleis defines a mood between neutral and sad. And number 4 on the mood scalerepresented a mood between happy and neutral. The mood scale showed thedifference that the independent variable would have on the test subjects. Theindependent variable and the dependent variable come together in the experimentto become the focus to the experiment. In the experiment the dependent variableis the mood scale and the independent variable is the sugar. That means thatthe mood scale is dependent on the sugar. When the test subjects are given the sugar, they must rate their mood based on the sugar.

Sugar has been linked to thebrain and how it functions. This means the mood scale is affected by sugar becausesugar affects the brain which affects how you create emotions. Thisexperiment’s overall goal was to prove that sugar can increase your mood. During this experiment the control group rated their mood 1-5 and waited 30minutes and rated their mood another time. The experimental group rated theirmood, ate a Pixy Stix and waited 30

minutes and rated their mood again. This experimentwill help scientist in discovering if sugar really does affect mental health andmood.

Methods: For thisexperiment to be conducted, there were a total of 10 subject. Then there was atotal of 30 Pixy Stix. The test subjects were each given 3 Pixy Stix and apaper that gave instructions and for them to record results. First, the testsubjects recorded their mood 1-5. Next, they ate the Pixy Stix and waited 30minutes. During those 30 minutes the test subjects did not consume any food.

After the 30 minutes was up, the test subjects recorded their mood. The testsubjects did this a total of 3 times to complete the 3 trials needed for theexperimental group. For the control group, the same 10 test subjects were used. They recorded their mood 1-5 and waited 30 minutes.

During this 30 minutes theydid not consume anything at all. After the 30 minutes was up they, recordedtheir mood 1-5. Results: Afterlooking at the results of the experiment, one should see that the mood of thetest subject’s mood increased significantly more in the experimental group thanthe control group.

The average mood increase of the experimental group was 1. 2, while the average increase in mood for the experimental group was 0. 1. It isalso interesting to see that the experimental groups mood increased to a 4 or 5, with only increasing to a 3 one time, and the control group increased to mostly3 and 4’s with one increase to a 5 and to a 2. The mood of the test subjects inthe experimental group always increased or stayed the same. But

in the controlgroup, subject’s moods increased, stayed the same, and decreased.

The moods ofthe test subjects in the experimental group were a lot more positive than theones of the control group. Control Group Subjects Trial 1 Trial 2 Trail 3 Initial Mood Mood After 30 minutes Difference of Mood Initial Mood Mood After 30 minutes Difference of Mood Initial Mood Mood After 30 minutes Difference of Mood 1 4 4 0 3 3 0 4 3 -1 2 5 5 0 4 4 0 3 4 +1 3 2 3 +1 3 3 0 2 3 +1 4 3 3 0 2 3 +1 4 4 0 5 4 4 0 3 3 0 4 4 0 6 3 3 0 2 3 +1 3 3 0 7 4 4 0 5 3 -1 2 2 0 8 3 3 0 4 4 0 5 4 -1 9 2 3 +1 4 4 0 3 3 0 10 3 3 0 4 4 0 2 3 +1 Average: +0. 2 +0. 1 +0. 1 Table 1: To find the difference of the moods beforeand after 30 minutes, is calculated by subtracting the initial mood by the moodafter 30 minutes. Then all the differences of moods were added together anddivided by 10 to find the average increase/decrease in mood. The sum of thedifferences of mood was divided by 10 because there were ten pieces of data. Experimental Group Subjects Trial 1 Trial 2 Trail 3 Initial Mood Mood After 30 minutes Difference of Mood Initial Mood Mood After 30 minutes Difference of Mood Initial Mood Mood After 30 minutes Difference of Mood 1 4 5 +1 3 4 +1 2 4 +2 2 3 4 +1 4 4 0 3 3 0 3 3 4 +1 2 5 +3 3 4 +1 4 4 4 0 3 4 +1 2 4 +2 5 4 5 +1 4 5 +1 3 5 +2 6 3 4 +1 4 5 +1 3 5 +2 7 3 5 +2 4 4 0 2 4 +2 8 3 4 +2 4 5 +1 5 5 -1 9 3 4 +1 3 5 +2 4 5 +1 10 2 4 +2 4 4 0 3 5 +2 Average: +1.

2 +1. 2 +1. 3 Table 2: To find the difference of the moods beforethe sugar was consumed and after 30 minutes, is calculated by subtracting the initialmood by the mood after 30 minutes. Then all the differences of moods were addedtogether and divided by 10 to find the average increase/decrease

in mood. Thesum of the differences of mood was divided by 10 because there were ten piecesof data.

Mood Scale # Meaning 1 Angry 2 Grumpy 3 Neutral 4 Happy 5 Ecstatic BarGraph: The bar graph shows the average of increase in mood for each trial. Onecan look at the graph and easily see that the control group has a very smallincrease in mood, but the experimental group has a much larger increase inmood. Discussion: Theoverall goal of this experiment was to prove that sugar can increase mood. The experimental groups average increase inmood was 1. 2 and the average for the control group was 0. 1.

That’s a 1. 1increase. Therefore, the overall goal was proven to be correct. The resultsalso showed that the increase of the experimental group was mostly 4 or 5s. While, the control groups increase was mostly 3 and 4s. The experimental grouphad a more positive outcome. Thehypothesis was proven by the results. The results show that the experimentalgroup had more of an increase in mood than the control group.

Sugar is adopamine. A dopamine is a “ feel-good” chemical in the brain. It activates areward center in the brain. And overtime, with addictive eating habits, it canchange how the brain functions. It is important to know this data because itcan help prove that sugar is not as bad and doesn’t lead to many issues withthe brain. Thisexperiment is relevant to the scientific community because it can help provethat sugar may not be as bad as scientist think. Currently, scientist thinkthat sugar is as addictive as some drugs, but researchers can now use thisexperiment to test and see if it is really that bad.

They can do this many moretimes than just once and see how the results change overtime. This experimentalcould maybe change the course of what they have found. Scientist will be ableto track how sugar effects mood in short and long-term situations. Some potential modifications that could bemade to this experiment is not letting the test subjects do this on their own. During this experiment, the test subjects may have forgotten that they couldnot eat in the 30-minute waiting period.

They could have also done theexperiment all in one day, when it was supposed to be done in 6 days. A way tofix this problem is too sit the test subjects down one by one and do theexperiment and watch them record their results. Some other modification thatcould be made to this experiment are the use of more sugar or a differentwaiting period. This could make for more accurate results in the experiment andseeing how sugar affects mood in different amounts of sugar and time. WorkCited (Documentation):(n.

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