The Effects of Stress and the Freshman Fifteen:

Are Males or Females More Affected?

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**Introduction**

This study will focus on the effects stress has on weight gain in college freshman and try to prove or disprove the “freshman fifteen” legend. The key research questions include: How and why does stress effect weight gain? Do female or male freshmen tend to gain more weight than the other? The “freshman fifteen” is a well known ideal that plagues the thoughts of most freshman entering college. Stress can be a major factor in weight gain, along with the added stress of being in a new environment, surrounded by new people. Weight gain can be a consequence of these social stressors. First, previous research on weight gain in college freshman will be introduced followed by an outline detailing how the experiment will be conducted.

**Literature Review**

In a study on weight gain among freshman, Vella-Zarb and Elgar (2010), weighed 84 freshmen at a university in Canada and then asked them to complete the Perceived Stress Scale. They found that although the amount of weight gained was small, averaging around 2 to 3 pounds, the frequency of this occurring was significant. The researchers found that students living on campus tended to gain more weight than students living off campus. Additionally, they found that there was no significant correlation between the amount of stress a student was feeling and their weight (Vella-Zarb, 2010).

In another study about the freshman fifteen phenomenon, Carithers-Thomas (2010) studied 52 college freshman enrolled in a physical education class at a university in Alabama. She analyzed three major concepts: the amount of weight gain, the perceptios as to why the weight gain was occurring and strategies for losing any unwanted weight gain. Carithers-Thomas’ (2010) results indicated that 62% of the freshman participating in the study gained an average of about 10 pounds during the course of their freshman year (Carithers-Thomas, 2010). The researcher’s results indicate that although the majority of participants gained weight in their freshman year, the amount of weight did not equal the 15 pounds that is commonly said to occur.

In their study about weight gain of first year college students, Mihalopoulos, Auinger, and Klein (2008) used an online survey to collect data about weight and social behaviors. The researchers surveyed 528 college freshman at a private university in northeastern United States over a period of two years, mainly trying to analyze if there was any change in weight over the participants first year at college. The researchers concluded that about half of the students gained weight, with the average weight gained around 2.7 pounds and that 15% of their participants actually lost weight. They were also able to conclude that men gained more weight than women in this particular study.

Gillen (2010) conducted a study focusing on the differences in weight gain among college freshman of different ethnicities. The researchers sample included 390 students, 32% of which were African American, 27% Latino American and 41% European American. She weighed them at three different types from their first through third semesters. Although students gained an average of 3.2 pounds, Gillen (2010) found that there was no significant difference between the different ethnicities. One interesting conclusion she did find however, is that students with lower SAT scores were more likely to experience weight gain within their first year of college (Gillen, 2010).

In the only study to really analyze the differences between males and females and weight gain, Cluskey and Grobe (2009) used a repeated-measure study design to weigh 379 college freshmen. Over a three month time period, they found that over 25% of the participants gained weight and of that 25%, males were more likely than females to have gained weight. The researchers analyzed potential causes for this and found that males tended to be less concerned about their weight in general and used fewer methods of weight control than females. Additionally, the students identified struggles in adapting to eating healthy and exercising in the new college life (Cluskey & Grobe, 2009).

All of these studies showed significant research in weight gain among college freshman, however, none of them really focused on whether or not men or women were more likely to gain weight and why this happens? Additionally, the studies did not ask why and how stress could play a key factor into the potential for weight gain and the “freshman fifteen” phenomenon.

**Method**

A survey will be developed to measure the amount of stress the freshman student is feeling and if this is affecting their weight. The instrument will contain about 35 questions, consisting of 5 open-ended demographic questions asking their age, sex, ethnicity, current weight and location of their dormitory on campus. The residence question is added to ensure that freshmen in every college dormitory are represented and to ensure validity of this survey. Additionally, the survey will consist of 15 questions measuring the student’s amount of stress and amount of adjustment to college life using a Likert Scale. The survey will include questions such as: “How stressed were you when you first moved into your dormitory?” “How well do you feel that you have adjusted to college life?” “How stressed are you about the amount of academic work you are required to do?” “How stressed are you about living in a new place with people you do not know?” Also, the survey will contain 10 questions asking about the students eating and work out habits, such as “Do you tend to snack or eat more when you are feeling stressed?” and “Do you have a routine workout plan, and if so how many hours a week do you spend working out?” These questions will help determine whether high levels of stress could be causing the weight gain, or if weight gain can be attributed to other factors such as eating more than the student did before they came to college, or working out less than they did before they came to college.

Before administering the survey to the participants, a pretest will be conducted on a smaller sample to ensure validity of the instrument. A convenience sample will be obtained of 30 Longwood University students by asking potential freshman who are here visiting at an Open House during the summer to take the survey and provide feedback about its readability and comprehensiveness. To ensure validity of the instrument, the results will be run through SPSS.

Once the validity of the survey has been confirmed, the survey will be administered to a random sample of 200 freshman females and 200 freshman males at Longwood University. These students will be randomly selected from their freshman class, and sent an e-mail asking them to complete the survey through an online system such as survey monkey. To get the most accurate results, the survey will be administered to the participants on the first day of class of their first semester and then again on the last day of class of their second semester as a freshman at Longwood University. The participants will take the exact same survey twice, to see how their answers have changed and if their weight has gone up or down or stayed constant over the course of one academic year. For incentive to participate in the study, students will be given a $5 Barnes & Noble gift card upon completion of the survey each time they take it.

The study will be conducted ethically and there will be no items on the survey that could be deemed unethical. The students will not be forced to participate without their consent. The first prompt of the survey will be an information page, informing them of the purpose of the study as well as how and why the study is being conducted. The first item on the survey will be “I consent to participating in this study and understand that if I feel uncomfortable at anytime and wish to terminate my participation I will be allowed to do so without any consequences.” This question will ensure that each participant has given consent to be a part of this study. After completing the survey, the final page of the questionnaire will debrief them and inform them of the nature of this study and state the purpose statement again. Additionally, this page will thank them for their time and tell them where and when to pick up their $5 Barnes & Noble Gift Card, this page will be used for both times the survey is taken by the participant.

References

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