Educating Students on the Dangers of Weight Gain

Introduction
It is important to understand the significance of weight management. College students especially face many obstacles when it comes to weight management. Young people in college are more susceptible to gaining weight than the general public (Strong, Parks, Anderson, Winett, & Davy, 2008).

Effective weight management techniques are a tool that can be used throughout life and will be more beneficial the earlier in life they are implemented. Preventing weight gain and informing young adults about the dangers of obesity are two of the underlying factors we will be studying throughout this research brief.

The reader will overview an experiment that deals with educating students throughout the semester on their dietary intake and the effects the education they receive has on their weight gain. The reader will briefly look at a study conducted on educating students through a two year seminar-based intervention program and the effects it had on weight gain.

Purpose
The purpose of this research brief is to describe the dangers of weight gain for college students and to facilitate a better understanding of the importance of effective weight management.

Beliefs about Causes of Weight Gain
Obesity has become a widespread concern in recent years; researchers need to determine the causes for this issue. Hajhosseini et al. (2006) reported that studies evaluating self-report data suggest that approximately 27% to 35% of college students are overweight or obese. It is estimated that the average American adult gains around two pounds per year, but college students gain between four and nine pounds during their freshman year of college (Strong et al., 2008).

In order to better understand the potential causes of weight gain in early college years, it is important to take notice of the major differences in the surrounding environment. For most students it is an expected change, but for others the changes can be devastating to their healthy habits.

A major change student’s face is their food environment. They are now eating three meals per day without any supervision and advice. The decrease in parental supervision of food choice can lead some students to make unhealthy decisions on a regular basis. Students tend to find a greater variety and choice when selecting what to eat away from home, and the social circumstances of eating play a much larger role than they did at home (Pliner & Saunders, 2008).

Exercise is an important factor in weight management. Some college students prioritize working out over anything while others do not seem to think it is as
important. Strong et al., (2008) reported that college students might not work out due to lack of time management, poor body image, deficient accountability, and feelings of laziness. Social support for exercise is an important aspect of weight management as well. Students need to find an accountability partner that will encourage them to work out and stay fit on a regular basis.

Research Conducted on Preventing Weight Gain

Forty-one female students over the age of 18 were recruited for the study conducted by Levitsky, Garay, Nausbaum, Neighbors and Della Valle (2006). They were recruited by flyers distributed throughout the Cornell University campus. The initial mean weight of the participants was 136.4 lbs (62.0 kg) and they were randomly divided into two groups, experimental and control.

Each participant in the experimental group received an analog scale and was instructed to weigh themselves first thing in the morning upon waking up and in the evening before bed. Neither group was given instructions on diet or exercise. Participants were told to e-mail weights daily to coordinators in order to keep accurate data during the experiment.

The daily weights were analyzed and entered into a Microsoft Excel Worksheet. During the study the students were e-mailed daily on the amount of calories they could eat or not eat depending on the situation, in order for them to manage their current weight (Levitsky et al., 2006).

Levitsky et al. (2006), stated “This calculated value was sent to the participants in each day with the following message: ‘In order for you to maintain the average weight of your first seven days, you should ______ (increase/decrease) your intake by ___ calories’” (p. 1006).

The control group had no more contact with the administrators of the study until the 10-week mark. At the end of the semester both groups were weighed again by the staff.

Figure 1 shows the mean beginning and ending weight of all participants. The change in weight within the participants is shown in the right-hand panel. The left-hand panel shows the different groups and the actual weight changes by numbers.

![Figure 1](image-url)

**Figure 1.** The mean beginning and ending weight of all participants and the changes in individuals’ weights. Adapted from “Monitoring weight daily blocks the freshman weight gain: A model for combating the epidemic of obesity,” by D. Levitsky, J. Garay, M. Nausbaum, , L. Neighbors, and D. Della Valle, 2006, *International Journal of Obesity*, 30, p.1007. Copyright 2006 by Nature Publishing Group.

Hivert et al. (2007) showed that conducting a two year seminar-based
intervention program on first year college students could help keep weight down. The intervention was based on education and behavioral programs that would interest students while still aiming at improving their overall lifestyle habits. Its purpose was to help prevent the usual weight gain in college freshman and potentially educate them in a way that is lasting. The students who participated in the seminar saw no significant change in weight. They gained less than one pound on average.

Strong et al. (2008) conducted a theory-based study where they focused on the different lifestyle changes that college freshman face. They looked at issues such as: body weight, body composition, cardiorespiratory fitness, diet and activity habits, and some psychological characteristics. They found 43 participants who were no older than 18 years, which consisted of freshman and sophomore level students. Like the previous studies the participants were recruited through posters and flyers that were distributed throughout the Virginia Tech campus.

The participants in the Strong et al. (2008) study height, weight, BMI (Body Mass Index), and resting blood pressure were measured at the beginning of the study. Participants were told to log their daily activities including: time spent watching television, time spent browsing the internet, time spent sleeping and or napping, and time spent doing any sort of physical activity along with intensity ratings (Strong et al.).

The participants were also required to attend 30 interviews or focus groups. The interviews allowed the interviewees to get used to the interviewers and hopefully bring out more honesty in their answers.

The Strong et al. (2008) study showed that the lifestyle changes from high school to college greatly affect weight gain in college freshman. Although most students reported being involved in some sort of aerobic activity in college they also reported that their workouts were less intense, less structured, and consisted of more voluntary activities rather than mandatory organized sports practices (Strong et al.).

The students reported drinking more alcohol, and the women participants reported eating dessert daily. The study found that the snacks students had available to them in their dorm rooms were unhealthy.

During the Strong et al. (2008) study, interviewers found that “having social support from friends encouraged students to be physically active, and they reported that exercising with friends is socially rewarding” (p. 1713).

Discussion

The findings of these experiments supported the theory behind the “Freshman 15.” The “Freshman 15” is the belief that many college students gain a significant amount of weight (possibly up to 15 pounds) during their first year of school.

In the Levitsky et al. (2006) study, the control group gained a significantly greater amount of weight than the experimental group. The experimental group actually managed to lose weight during the study.

Apparently communicating to students the amount of calories that they can consume or that they do not need to consume is a very effective way to help change the aspect of their behavior and prevent weight gain throughout the semester (Levitsky et al., 2006).

Educating students in the form of a daily e-mail is obviously not feasible for every college freshman, but there are ways to get the message out there and inform the young adults about the importance of eating healthy and managing weight in a lifelong effective way.

In the Hivert et al. (2007) study, the students were effective in keeping their
weight down. The seminars they attended educated them on the dangers of weight gain.

Strong et al. (2008) found target areas that the students, if educated in those areas, could manage their weight. In general, the students agreed that if they had someone or something (a class) to help keep them up to date or educate them in those targeted areas that they would be more cautious about weight gain.

Conclusion

A common factor of education permeates the studies conducted. In the Levitsky et al. (2007) study the participants were educated daily about their caloric intake and how to properly manage their weight based upon the caloric levels. In the Hivert et al. (2007) study the participants actually attended a seminar- based intervention program where they were instructed on different aspects of college life and how these aspects affect their weight.

In the Strong et al. (2008) study the students were questioned about targeted areas in their lives that encouraged weight gain. In general, these areas were found to be the same throughout the whole group. Strong et al. (2008) stated that “weight gain prevention interventions aimed at this population should instill skills in goal setting, planning, and self- monitoring” (p. 1714).

It is possible that students who participated in some of these studies and successfully lost weight were also implementing other healthy lifestyle features such as exercising.

The findings in these studies support having a required education course during the first semester of college. It would give every student the opportunity to learn about the dangers of obesity, and the importance of weight management early on in life. The first few years of college are a pivotal time to instill aspects of a healthy lifestyle.

Audience

This research brief is of interest to anyone wanting to gain insight on weight gain associated with first-year college students. Also, individuals interested in educating such students about a healthier lifestyle and early obesity prevention.

References


