

Exploring Health Behaviors on Campus: A Study on the Resting and Eating Habits of Williams College Students

Ashley Kim

Abstract

This study aimed to investigate the relationships between health behaviors, including sleep habits and eating habits, among Williams College students. A sample of students completed a survey in which they were asked about themselves, their diet, and their activity. Consistent with past evidence, sleeping more is associated with having a healthier diet and a higher self-satisfaction with eating habits. Williams students who indicated in the study that they sleep earlier rated the healthiness of and satisfaction with their eating habits significantly more positively than students who reported sleeping later. Participants who rest more are more likely to feel like they eat healthier per week, and participants who feel like they eat healthier are more satisfied with their eating habits. Overall, among Williams students, better sleeping habits are associated with healthier eating habits and with more positive self-perceptions of one's diet. These findings provide valuable insights to the well-being of Williams College students and may potentially inform strategies for promoting physical and mental health on campus.

Keywords:

Diet, Sleeping, Relaxation, Health, Self-Satisfaction, Williams College

Introduction

While the individual significance of dietary and sleeping habits is widely acknowledged, the mutual influence between these essential human functions often receives insufficient emphasis in everyday discourse and practice, especially on college campuses. Practice of poor eating and resting habits are especially prevalent among college students, putting students at risk for health problems and jeopardizing academic achievement and performance, relationships, and happiness (Sheldon et al., 2007).

Past research corroborates the hypothesis that better resting habits among young people are associated

with better diets. Among children, adolescents, and young adults, higher intake of unhealthy (e.g., processed, sugary) foods and drinks has been associated with worse sleep features (e.g., more hours of sleep, greater daytime sleepiness, greater sleep satisfaction), while consumption of healthy foods and drinks has been associated with better sleep quality (Godos et al., 2020). Unhealthy foods can affect hormone levels, which influence circadian rhythms; then, disturbed sleep-wake cycles can lead to a host of unwanted physiological and mental stressors as extreme as affective disorders and metabolic diseases (Li et al., 2018).

Important factors to consider regarding individuals' habits include not only the habit itself, but also the individual's thoughts and perceptions of their habit. Self-satisfaction with habits may be just as important to individuals as the actual healthiness of the habits. In fact, a study among Korean adolescents found that healthy eating is linked to higher sleep satisfaction, but not necessarily other indicators of better sleep (Hong & Peltzer, 2017).

Better resting habits include sleeping earlier and sleeping more; better diets include eating healthier foods (e.g., non-soft drinks, non-processed food). Past research highlights the significant link between good rest, a healthy diet, and optimal human functioning: we cannot optimize one without the others, especially in young people. This study will investigate the relationship between resting and dietary habits, as well as student satisfaction with these habits, at Williams College.

Methods

Participants

The online survey was completed by 259 Williams College students. Participation in this study was voluntary and anonymous. Each student in a 200-level Williams Psychology class conveniently sampled 5-10 participants for the study; those participants' participation was voluntary, and there was no incentive included. The remaining portion of volunteers were recruited

from an entry-level psychology class; an incentive (extra credit for the class) was included to bolster participation in the study.

Of survey participants who included their class year in the survey, there were 108 freshmen, 83 sophomores, 38 juniors, and 30 seniors. Two-hundred twenty-seven survey participants reported their family income in the survey. There were about 20 participants in each of 6 family income brackets, ranging from making under \$49,999 to making between \$150,000 and \$174,999; more than a third of participants (97) reported their family income as being \$175,000 or higher.

Materials and Procedure

Participants were first asked about rest, activities, food, and eating. Questions examined how many hours participants spent throughout the week resting (i.e., sleeping and relaxing, using a 12-point scale) and number of hours per day, on average, doing activities (i.e., homework, extracurricular activities, or time outside, each on a 10-point scale). There was also one question about when the individual goes to sleep (before 10 PM, 10 PM to 12 AM, 12 AM to 2 AM, or after 2 AM). Participants were also asked about their eating habits (i.e., satisfaction with their eating habits, healthiness of eating habits, effect of academic stress on eating habits, each on a 1-10 scale) and their campus dining preferences (i.e., how much they like each of 8 dining halls, on a 7-point scale).

Participants' demographics and background were also assessed. Participants were asked about their class year (and, if not a freshman, their GPA), their hometown (7 degrees of urban to rural), high school (6 types, e.g., private, public, boarding), household income (on an 8-degree scale), campus housing (i.e., which of 14 dorms they live in), and political orientation (5 degrees of very liberal to very conservative).

Results

The average number of hours the participants report resting per day was computed by summing the average number of hours the participants report sleeping on weeknights and the average number of hours the participants report relaxing per day. Participants' number of hours spent resting was positively and significantly correlated with how satisfied they are with their eating habits, on a scale of 1 being extremely dissatisfied and 7 being extremely satisfied ($r(257) = .14, p = .025$).

The entire sample slept about 7.1 hours per weeknight, on average. Furthermore, the analysis indicated that the more hours participants slept, on average, on weeknights was positively and marginally significantly correlated with how satisfied they are with their eating habits, on a scale of 1 being extremely dissatisfied and 7 being extremely satisfied ($r(257) = .12, p = .060$).

Participants' ratings of how healthy they feel they eat during an average week at Williams (on a scale of 1 being extremely unhealthy and 7 being extremely healthy) was positively and significantly correlated with how satisfied they are with their eating habits, on a scale of 1 being extremely dissatisfied and 7 being extremely satisfied ($r(257) = .39, p < .001$).

Participants who slept before 12 AM rated their satisfaction with their eating habits during the semester significantly better ($M = 4.31$) than participants who slept after 12 AM ($M = 3.94$) ($t(257) = 2.293, p = .023$). Participants who slept before 12 AM rated how healthy they feel they eat during an average week at Williams significantly better ($M = 4.25$) than participants who slept after 12 AM ($M = 3.84$) ($t(257) = 2.778, p = .006$).

Discussion

Consistent with previous research among college students, sleeping earlier and more is associated with healthier, and higher self-satisfaction with, eating habits among Williams students. Williams students in the study sleep an average of seven hours per weeknight. Those who slept before midnight were significantly more satisfied with their eating habits and the healthiness of their diet than those who slept after midnight. Participants who rest more (i.e., overall sleep more during the night and relax more during the day) tended to perceive their eating habits as healthier; those who sleep more reported higher satisfaction with their eating habits.

The study underscores the important relationship of relaxation and sleep with a healthy diet and greater self-satisfaction with one's diet. By implementing resources and regulations that promote restful behaviors among students, campus administration can empower students to prioritize their mental and physical well-being. Increasing access to healthy sleep information to college students is linked to better sleep and healthy behaviors (Athey & Grandner, 2017); the College should consider implementing stress management workshops, meditation and mindfulness group sessions, and sleep hygiene

(e.g., sleep schedule, caffeine, exercise) informationals. Other potentially supportive recommendations include designating more relaxation spaces on campus where students can take short breaks or naps during the day, providing items (e.g., eye masks, blackout curtains) to help students make their dorms more sleep friendly and encourage earlier sleeping times, and increasing access to discrete mental health services for students experiencing sleep-related issues or stress.

In this highly academic, rigorous, liberal arts college, prioritizing physical and mental health is crucial for fostering academic excellence, resilience and adaptability, personal fulfillment and happiness, creativity, and social connections. Embracing a holistic approach to student well-being aligns with the ethos of a liberal arts education: emphasizing the development of the whole person and preparing students for success both academically and in life beyond college.

A number of important questions related to the hypothesis remain to be explored. Now that the association between better rest and better eating habits has been established, the causal relationship(s) between them should be investigated. As this study relied on retrospective report, which is subject to recall bias (Crochiere et al., 2021), follow up studies on health behavior at Williams should consider utilizing momentary data collected by ecological momentary assessments (EMAs; brief, self-report surveys that are completed frequently in one's natural environment) and sleep/activity sensors.

Due to the sampling method, certain characteristics, such as the distributions of class years and of income brackets, are skewed. For example, the distribution of class years is skewed right because more underclassmen chose to and/or got a chance to participate in the study. Among other effects, this may have led to an inflated average number of hours of sleep per night used in our analyses (e.g., underclassmen may have lighter workloads and thus more hours in the day to sleep). To have a sample more representative of the Williams student population, future iterations of the study should utilize random sampling to recruit participants.

References

Athey, A., Grandner, M.A., Student athletes' access to healthy sleep information on campus: how does it relate to other types of health information and to sleep difficulties?, *Sleep*, Volume 40, Issue suppl_1, 28 April 2017, Page A451, <https://doi.org/10.1093/sleepj/zsx050.1208>

Crochiere, R. J., Abber, S. R., Taylor, L. C., Sala, M., Schumacher, L. M., Goldstein, S. P., & Forman, E. M. (2021). Momentary predictors of dietary lapse from a mobile health weight loss intervention. *Journal of Behavioral Medicine*, 45(2), 324–330. <https://doi.org/10.1007/s10865-021-00264-4>

Godos, J., Grosso, G., Castellano, S., Galvano, F., Caraci, F., & Ferri, R. (2021). Association between diet and sleep quality: A systematic review. *Sleep Medicine Reviews*, 57, 101430. <https://doi.org/10.1016/j.smrv.2021.101430>

Hong, S. A., & Peltzer, K. (2017). Dietary behaviour, psychological well-being and mental distress among adolescents in Korea. *Child and Adolescent Psychiatry and Mental Health*, 11(1). <https://doi.org/10.1186/s13034-017-0194-z>

Li, Y., Hao, Y., Fan, F., & Zhang, B. (2018). The role of microbiome in insomnia, circadian disturbance and depression. *Frontiers in Psychiatry*, 9. <https://doi.org/10.3389/fpsy.2018.00669>

Scott-Sheldon, L.A.J., Carey, K.B. & Carey, M.P. Health behavior and college students: Does Greek affiliation matter?. *J Behav Med* 31, 61–70 (2008). <https://doi-org.ezproxy2.williams.edu/10.1007/s10865-007-9136-1>

Author's Note

Thank you to Professor Steven Fein for his invaluable assistance to this project and paper.