Food Choices & Daily Health Habits Among College Students

Danielle Kruchowy

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Research Question: How important is it to make healthy food choices?

This question affects everyone. Everyone has different eating habits and access to different foods based on various factors such as motivations, geographical location, and socioeconomic status. My research exercise focused on college students, who have unique challenges when it comes to eating healthy foods, including living in dorms with set meal plans, lack of kitchen and food storage space, the added financial burden of healthy and organic foods, in addition to limited time due to classes, work, homework, and other responsibilities. I have recently learned a lot about the power of certain foods in preventing and treating various ailments and am generally interested in using foods to improve health, so this has been a topic that I have become passionate about. I was raised being very aware of what I put in my body, and I am curious to see how conscious others are about eating well and what their motivations to do so are.

Annotated Bibliography

1. Conner, T. S., Brookie, K. L., Carr, A. C., Mainvil, L. A., & Vissers, M. C. (2017). "Let them eat fruit! The effect of fruit and vegetable consumption on psychological well-being in young adults: A randomized controlled trial." *Plos One, 12*(2). doi:10.1371/journal.pone. 0171206

The physical benefits of fruits and vegetables have been established. In addition to the known physical benefits, there is increasing evidence that people who eat more fruits and vegetables have better mental health. Higher consumption of fruits and vegetables is correlated with multiple psychological outcomes, such as lower levels of depression and anxiety, greater happiness, higher life satisfaction, and greater social-emotional well-being. This study tested the psychological benefits of a 14-day preregistered clinical intervention to increase fruit and vegetable consumption in 171 low fruit and vegetable consuming young adults between the ages of 18 and 25. 56 were men, while 115 were women. It was found that providing young people with high quality fruits and vegetables, not texting them reminders to eat more fruits and vegetables resulted in improvements in their psychological well-being over the two week period. This was the first study to prove that providing high quality fruits and vegetables can result in short-term improvements such as these.

This article is important because many people aren't aware of the way food can affect their mental health in both positive and negative ways. Many people struggle with mental health and

knowing that simple things such as diet changes may improve mental health is extremely promising. It is also important because this study was one of the first that provided concrete conclusions, which will lead to more research and wider knowledge.

2. Massa, A. (2012, July 13). “Food for thought: The challenge of healthy eating on campus.” Retrieved March 24, 2019, from https://www.usatoday.com/story/college/2012/07/13/food-for-thought-the-challenge-of-healthy-eating-on-campus/37395423/

This article highlights the struggles of students to access healthy foods, such as fruits and vegetables on college campuses. According to a study of student eating habits published in the Journal of Nutrition Education and Behavior, many students are not even eating one serving of fruits and vegetables in a day, compared tot he average government-recommended 4.5-5 servings daily. Students are often bound to campus dining services by meal plans or convenience, which creates difficulties in balanced eating. CUNY’s initiative to promote healthy eating is mentioned here. The Healthy CUNY Initiative aims to transform CUNY into the healthiest urban university in America. It is acknowledged that students aren’t in a place to always pay extra costs for healthier foods. CUNY’s CHeF project coordinator, Patti Lamberson, said, “Cost is a challenge. Most students are on a tight budget and healthier foods can be more expensive.” Despite this, CUNY has made significant changes. The article goes on to acknowledge that many other colleges have not taken the same initiative, and they can take simple steps to improve their food choices. Tap water can be made freely available, processed snack food and candy offerings can be reduced, salad bars can be stocked with fresher ingredients.

This article is relevant because the people in my survey will all be college students, many of which do live on campus. This article also made me interested in people's motivations to eat healthy. It presents two sides of the conundrum by acknowledging that the dining services on many college campuses are not ideal, though there are always, at least some, options for students to make healthy choices. There is responsibility on both ends: the school and the student. What motivates a student to choose vegetables over cookies in the dining hall?

3. "Public views about Americans' eating habits." (2016, December 01). Retrieved March 24, 2019, from https://www.pewresearch.org/science/2016/12/01/public-views-about-americans-eating-habits/

Overall, Americans seem to be paying more attention to healthy eating due to many reasons. There has been an increase in public health concerns about the growing prevalence of obesity among children and adults, food allergies, and chemicals and additives in foods. These elements contribute to changing ideas regarding portion size, sugar, and fat content. According to research, 72% say that healthy eating habits are very important for improving a person's chances of living a long and healthy life. Consumption of sugary sodas has dropped to a 30-year low, while sales of bottled water rose dramatically in the past few decades and purchases of diet sodas and fast food has also decreased. However, it is not clear if people are actually eating healthier than in the past. About half of US adults think that the eating habits of Americans are less healthy today than

they were 20 years ago. Many people blame the quantity and the quality of what is available to eat.

This article is important for my research because it shows that many people today are concerned about what they are eating and how it affects them. Though there have been many positive changes in the eating and health habits of many Americans, there are still conflicting opinions.

4. Rabin, R. C. (2018, October 23). “Can Eating Organic Food Lower Your Cancer Risk?” Retrieved March 24, 2019, from https://www.nytimes.com/2018/10/23/well/eat/can-eating-organic-food-lower-your-cancer-risk.html?rref=collection/spotlightcollection/well-nutrition&action=click&contentCollection=eat®ion=stream&module=stream_unit&version=search&contentPlacement=18&pgtype=collection

Until recently, evidence of the benefits of eating organic foods has been lacking, but some recent studies have shown that eating organic foods can be very beneficial. In order for food to be certified organic by the Department of Agriculture, produce must be grown without the use of most synthetic fertilizers and pesticides and may not contain genetically modified organisms. Meat must be produced by raising animals fed organic food without the use of hormones or antibiotics. According to the organic trade group, only 5.5% of all food sold in retail outlets represent these characteristics. One study following 70,000 adults, most of them women, for five years, found that those who ate more organic produce, dairy, meat, and other products had 25% fewer cancer diagnoses over all, especially lymphoma an breast cancer. This study strongly

suggests, “That an organic-based diet could contribute to reducing cancer risk.” There are still controversial opinions from professionals in the field on the credibility and effectiveness of these findings and other findings. Dr. Hu, chairman of the department of nutrition at Harvard’s school of Public Health, says, “there is strong enough scientific rationale, and a high need from the public health point of view,” in regards to the need for government bodies such as the National Institutes of Health and the Department of Agriculture to fund research to evaluate the effects of an organic diet.

This article is important because it highlights promising studies regarding the consumption of organic foods and the reduction of different cancers. Many accredited professionals are featured in this article pushing for more research regarding this topic.

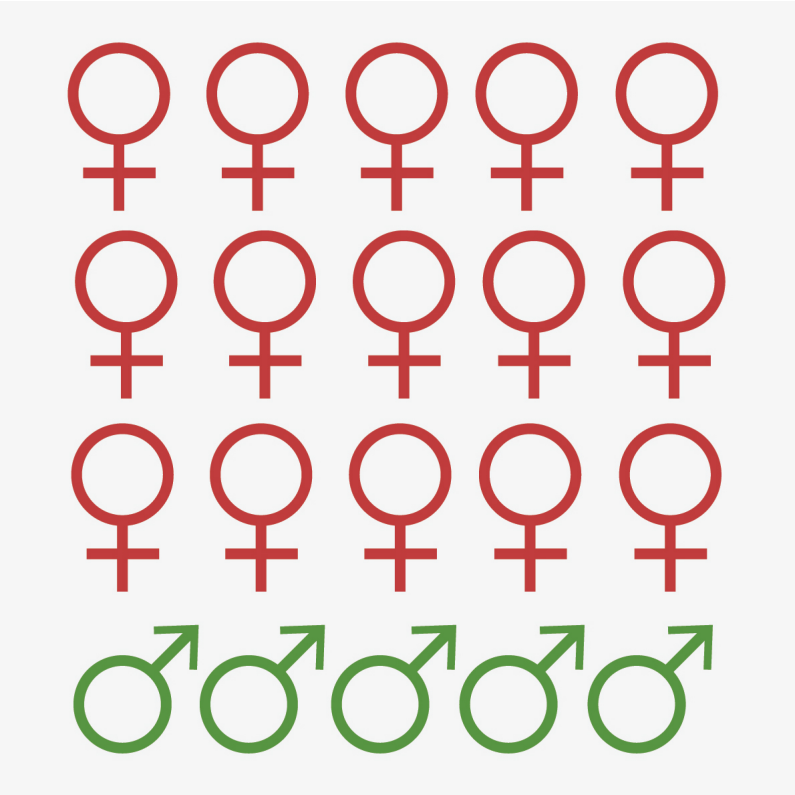
5. Skerrett, P. J., & Willett, W. C. (2010). “Essentials of Healthy Eating: A Guide.” *Journal of Midwifery & Womens Health, 55*(6), 492-501. doi:10.1016/j.jmwh.2010.06.019

This article is specific to women, which provided interesting insight into the benefits of healthy eating and lifestyle choices for women throughout their general life and also regarding specific situations such as diet and fertility, diet and pregnancy and diet and weight loss. The utility of healthy dietary patterns that emphasize whole-grain foods, legumes, vegetables, and fruits, and that limit refined starches, red meat, full-fat dairy products, and foods and beverages high in added sugars is explained here. It is acknowledged that there is still a lot we don’t know about the roles of specific nutrients in decreasing the risk of chronic disease, but diets similar to the one

previously described are associated with a decreased risk of a variety of diseases. The article goes on to define and describe dietary fat, carbohydrates, protein, vegetables and fruits, beverages, vitamins and minerals, weight control and exercise and dietary patterns. Positives and negatives of each category are explained, the benefits on overall health and statistics are given.

This article is important because it gives a clear and concise breakdown of the different food groups and their benefits to the human body. Though there are parts that are specific to women, there is also a lot of general information regarding food intake. The information may be interesting to analyze in comparison to results from women in my study to see if they appear to be more conscious of health or eating habits as compared to others.

Method #1- Survey: Results



Question #1: Please indicate your gender identity.

N= 20

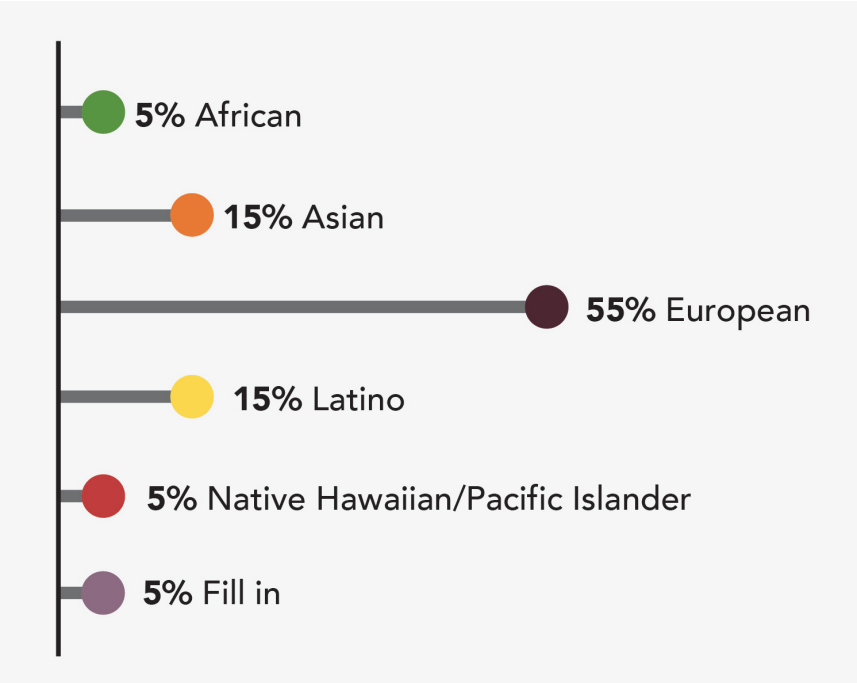
Raw Data:

Female: 15

Male: 5

75% women and 25% men were recorded as participating in this survey. This may or may not have had an effect on the overall data. I do not have much data on whether men or women are more likely to be conscious about what they eat, but this may have been a factor in the results.

<u>Question #2:</u> Please indicate your race/ethnicity.



N= 20

<u>Raw Data:</u>

African: 1

Asian: 3

European: 11

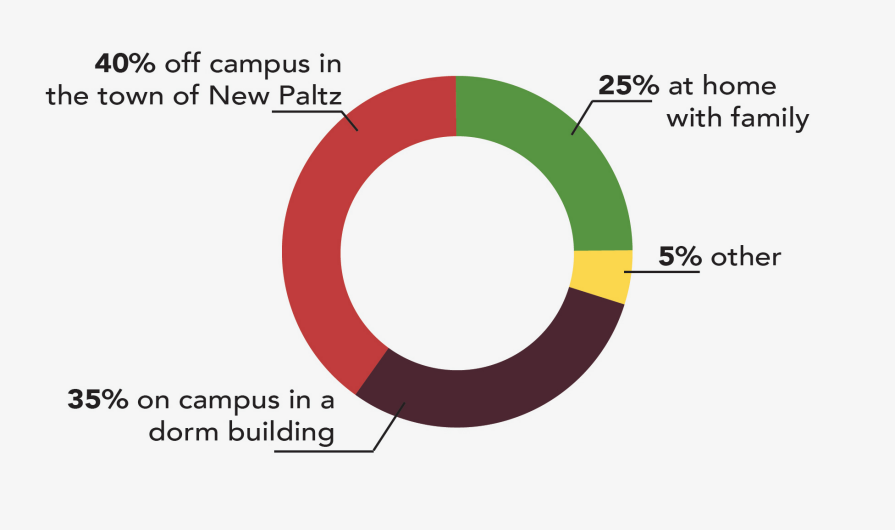
Latino: 3

Native Hawaiian/ Pacific Islander: 1

Fill in: 1 (specified answer: European/Native American)

Over half of respondents were European, 15% were Asian, 15% were Latino, 5% were African, 5% were Native Hawaiian/Pacific Islander, and 5% selected the fill-in option. Race and ethnicity is often linked to socioeconomic factors, which may have an effect on peoples' food choices. A more in-depth study would have to be done to determine this from my data, but research has suggested that these factors may influence eating habits.

<u>Question #3:</u> Where do you currently live?



N= 20

<u>Raw Data:</u>

Off campus in the town of New Paltz: 8

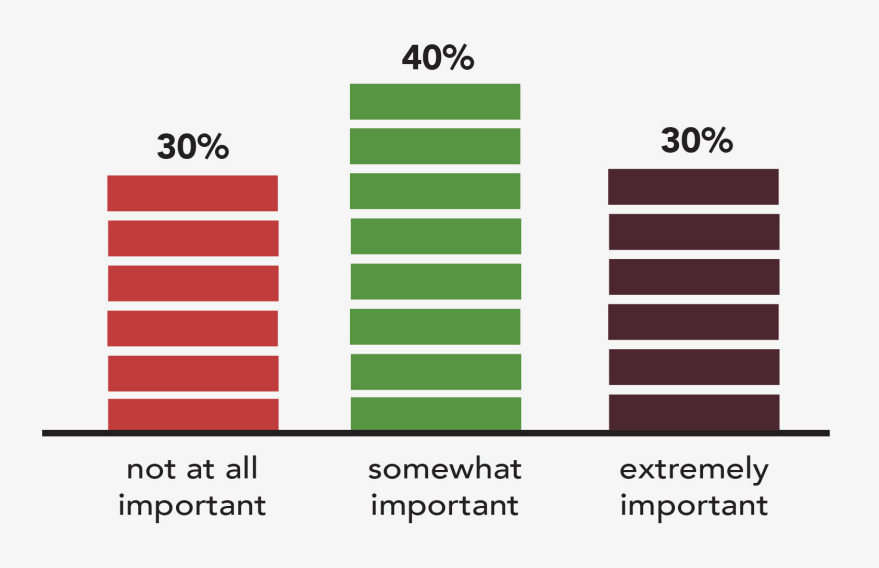
On campus in a dorm building: 6

At home with family: 5

Other: 1 (Fill in answer: off campus, on my own)

40% of respondents live off campus in the town of New Paltz, 35% live on campus in a dorm building, 25% live at home with their family, and 5% live elsewhere. The student's living situation can greatly influence their access to kitchen and refrigerator space, meal plan options, different foods, and influence from parents and/or guardians in terms of food availability, opinions, and cooking.

<u>Question #4:</u> How important is it for you to eat healthy foods everyday?



N= 20

<u>Raw Data:</u>

Not at all important: 6

Somewhat important: 8

Extremely important: 6

This question aimed to understand how important it was for respondents to eat healthy. It was interesting to compare this with other questions later in the survey which got into more specific questions. Often, someone may feel that something is important, but actual implementation of this in real life may be different. 70% said that eating healthy foods everyday was somewhat or extremely important. In the next question, comparisons between this activity and others in daily life are made, showing in context of real life how important eating healthy truly is.

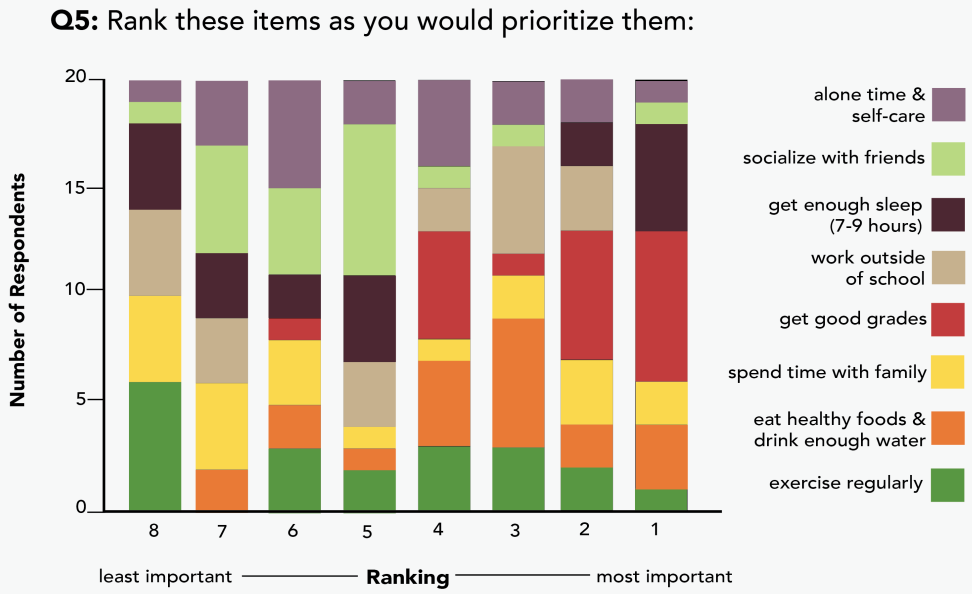
Question #5: Rank these items as you would prioritize them:

N= 20

Raw Data:

Number of Respondents for Each Ranking and Activity

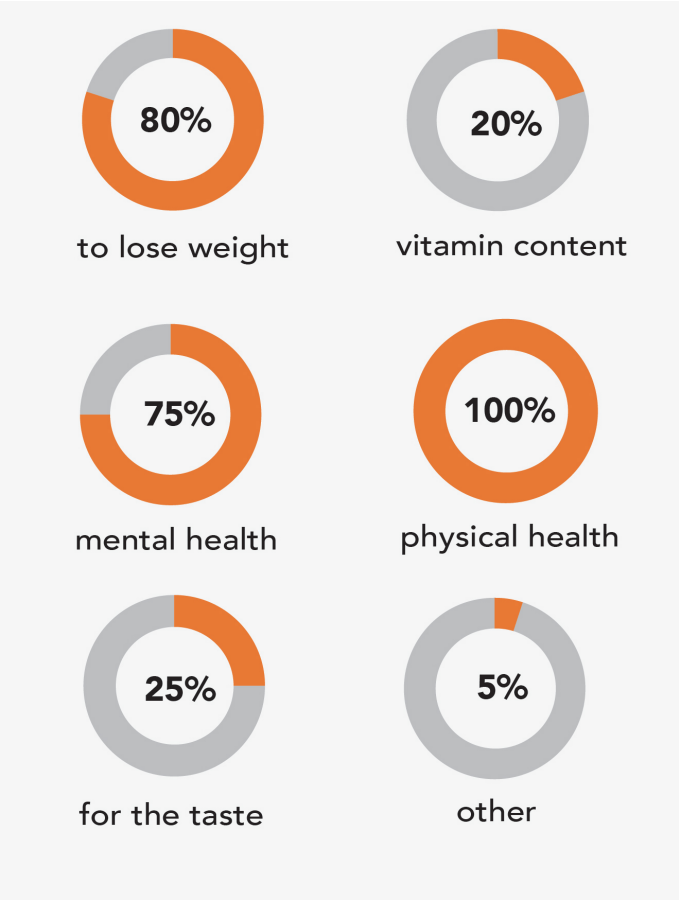
	#1	#2	#3	#4	#5	#6	#7	#8
Alone time & self-care	1	2	2	4	2	5	3	1
Socialize with friends	1	0	1	1	7	4	5	1
Get enough sleep (7-9 hours)	5	2	0	0	4	2	3	4
Work outside of school	0	3	5	2	3	0	3	4
Get good grades	7	6	1	5	0	1	0	0
Send time with family	2	3	2	1	1	3	4	4
Eat healthy foods & drink enough water	3	2	6	4	1	2	2	0
Exercise regularly	1	2	3	3	2	3	0	6



This question provided a lot of information. The most interesting bit of information in regards to my question is that 55% of respondents ranked “Eating healthy foods and drinking enough water” as one of their top 3 most important activities. 0% said that it is #8 (least important) on the ranking. “Exercise regularly” had fairly low rankings compared to the food and water question. Only 30% of respondents ranked it as in their top 3 most important activities, while 45% ranked it in their bottom 3 most important activities, with 30% saying it was their absolute least priority (#8). 65% of respondents said that “Getting good grades” was in their top 2 most important activities, which makes sense because all respondents in the survey were

college students. A surprising amount valued getting 7-9 hours of sleep, with 35% ranking it in their top 2 most important activities. One last point that was interesting is that most students ranked “Socializing with friends” as a lower priority than a higher one. 85% of respondents ranked it as #5 to #8 in terms of importance. Overall, this data shows that these college students are somewhat interested in maintaining their health.

<u>Question #6:</u> What motivates you to eat healthy? (Check all that apply).



N= 20

<u>Raw Data:</u>

To lose weight: 16

For the vitamin content: 4

Improved mental health: 15

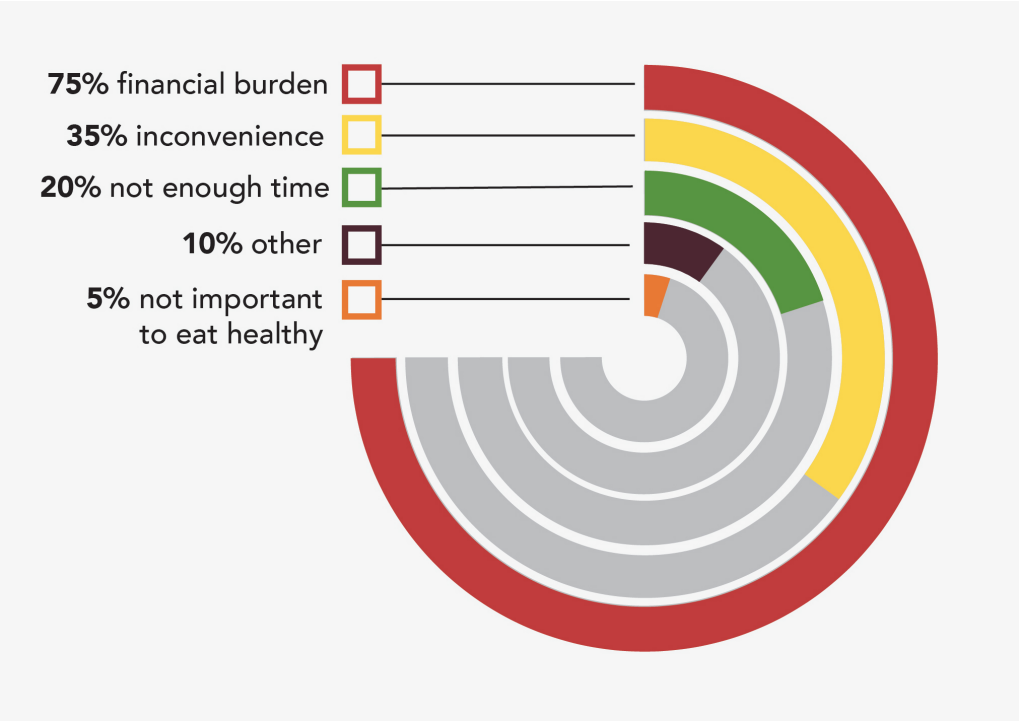
Improved physical health: 20

For the taste: 5

Other: 1 (specified answer: muscle gain)

This question allowed respondents to choose as many answers as they felt applied to them. 100% of people said that they eat healthy for improved physical health, while 75% said for improved mental health. 80% said they do so in order to lose weight. Physical health and weight loss are the 2 most popular answers, which I expected for this question. Many advertisements show these 2 things as benefits to eating healthy, and many people are concerned about them. The less advertised benefit of healthy foods is the vitamin content and the benefits this may bring to specific health ailments, so it makes sense that people are not consciously thinking about this when they make their food choices.

<u>Question #7:</u> What deters you from eating healthy foods? (Check all that apply).



N= 20

<u>Raw Data:</u>

Financial Burden: 15

Inconvenience: 7

Not enough time to: 4

Not important to: 1

Other: 2

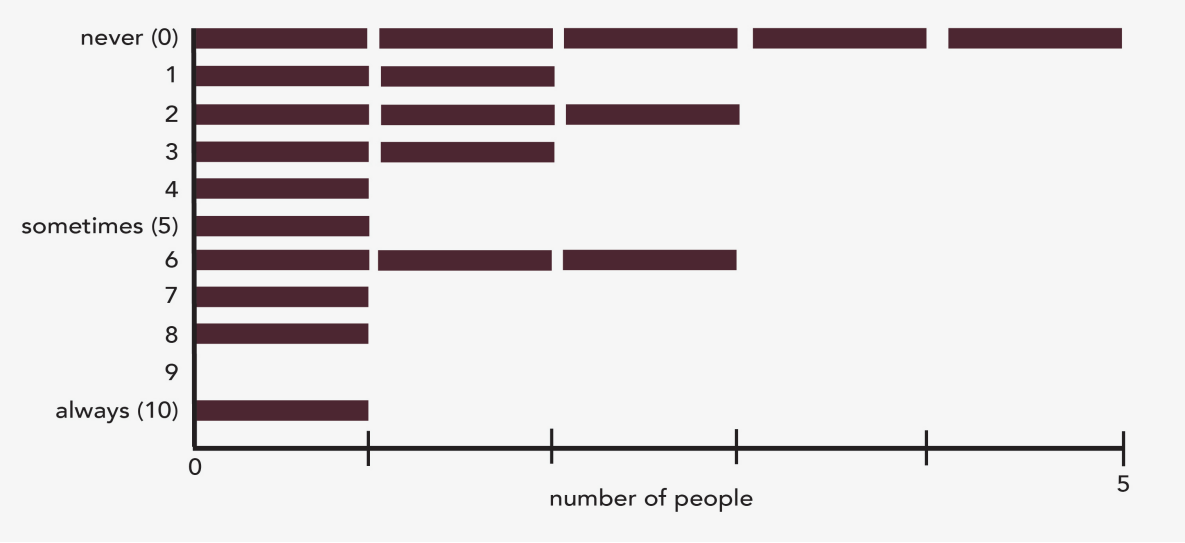
(Specified answers:

1. I don't make my own food or shop for it

2. I enjoy some food that you might not categorize as healthy)

This question allowed respondents to choose as many answers as they felt applied to them. The number 1 reason that people do not eat healthy is because of the financial burden. 75% chose this option. Students often do not often have the extra money to buy foods marked as ‘organic’ or even to spend the extra money on fresh fruits and vegetables. 35% said that it is inconvenient to eat healthy and 20% said there is not enough time to. Students may be faced with full schedules and the inconvenience of living in a dorm may contribute to the lack of time allotted to preparing, cooking, or shopping for healthy food.

<u>Question #8:</u> Do you pay attention to the vitamin content in different foods and does this contribute to your decision in eating them?



N= 20

<u>Raw Data:</u>

Never (0)- 5 people (25%)

1- 2 people (10%)

2- 3 people (15%)

3- 2 people (10%)

4- 1 person (5%)

Sometimes (5)- 1 person (5%)

6- 3 people (15%)

7- 1 person (5%)

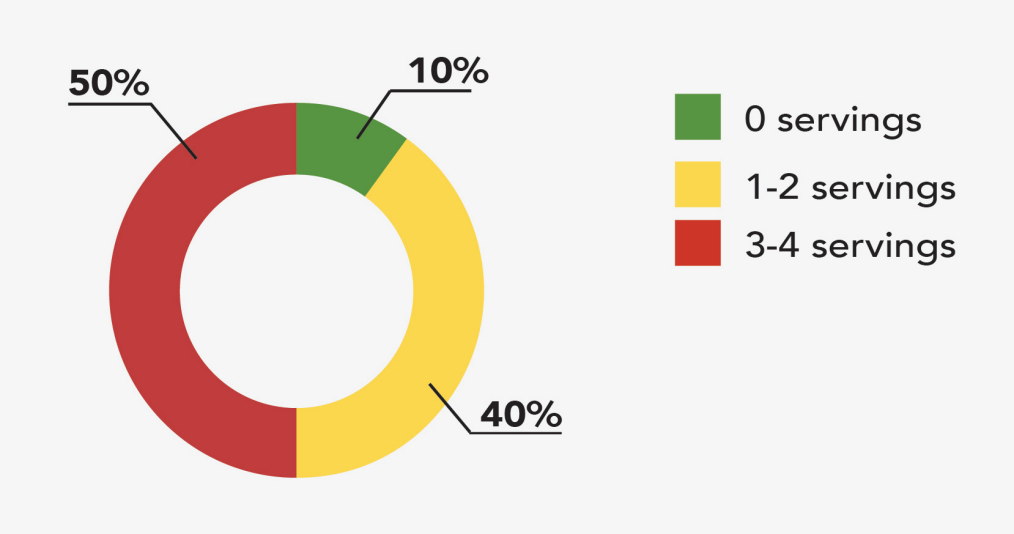
8- 1 person (5%)

9- 0 people (0%)

10- 1 person (5%)

This question's results seemed in line with one result from question #5 on motivations to eat healthy. Here, it was found that 65% of people said that they never to sometimes pay attention to the vitamin content in different foods. In this question, only 35% said that they sometimes to always pay attention tp the vitamin content. In question #5, only 25% said that vitamin content was a motivating factor in their healthy food consumption.

Question #9: How many servings of fruits and vegetables do you eat every day? (1 serving = 1 cup or 1 whole fruit).



N=20

Raw Data:

0 servings: 2

1-2 servings: 8

3-4 servings: 10

5 or more: 0

This question found that only 10% of respondents have 0 servings of fruits and vegetables daily, 40% has 1-2 servings, and 50% has 3-4 servings. 0% said that they have 5 or more servings per day. These results seemed fairly high, especially the percentage that have 3-4 servings, but they seem to be in line with other results, adding to the conclusion that most students seem somewhat conscious of eating healthily overall.

<u>Question #10:</u> Are you conscious of choosing foods marked as, “organic?”

<u>N= 20</u>

<u>Raw Data:</u>

Never (0)- 1 person (5%)

1- 0 people (0%)

2- 1 person (5%)

3- 4 people (20%)

4- 4 people (20%)

Sometimes (5)- 1 person (5%)

6- 3 people (15%)

7- 2 people (10%)

8- 2 people (10%)

9- 2 people (10%)

Always (10)- 0 people (0%)

This question found that it is about even between students that do not choose foods marked as “organic” and students that do. Most respondents seemed to be around the middle areas on the scale or around never to always. 70% chose from #3 on the scale to #7, which was right around “sometimes.” This finding is in line with the response from question #7 asking about deterrents of eating healthy. 75% of respondents in that question said that the financial burden is a reason they do not eat healthy. Organic food is significantly more expensive that non-certified organic foods, so it is logical that many college students may not be that concerned with choosing organic.

Method #2: Log Results

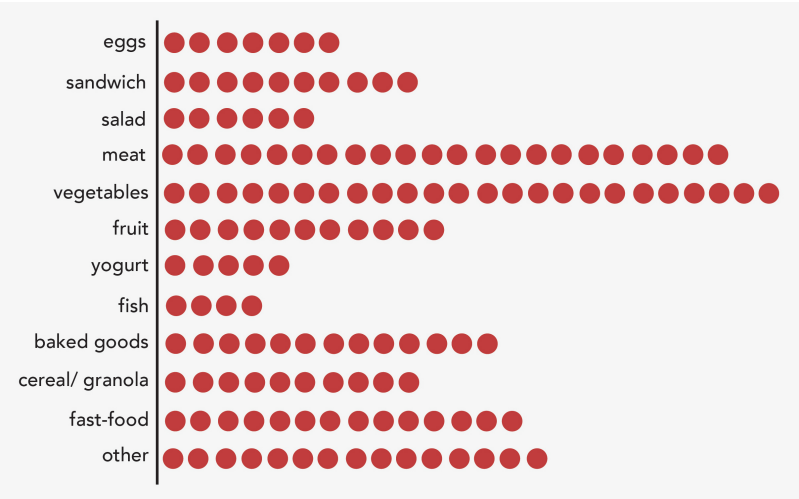
Question: What are the general food and wellness habits of people over a 3 day span?

These questions relate to my survey question because they provided detailed information over a 3-day period. Students were asked to complete a log for 3 days answering questions pertaining to food and drink, cooking habits, other activities participated in, exercise habits, supplement usage, stress levels, in addition to the time they woke up and went to sleep. A variety of questions were asked in hopes of getting a more holistic view and general trend of a 3-day span. In total, 12 logs were returned, although not every person answered every question for every day. In my visualizations, I only focused on the 4 most relevant questions that pertained to my original survey question. These questions were concerned with food, fluids, exercise, and supplement usage.

Log Sample:

DAY (of the week)	DAY 1 _____	DAY 2 _____	DAY 3 _____
1. What time did you wake up?			
2. What did you have for breakfast? At what time? Did you cook?			
3. What did you have for lunch? At what time? Did you cook?			
4. What did you have for dinner? At what time? Did you cook?			
5. What types of fluids did you drink today? How much?			
6. Did you exercise today? What kind & for how long?			
7. Did you take any vitamin or supplements today? How much & what kind?			
8. What other activities did you engage in today? (Ex: work, school, socialize with friends or family, alone time, etc.)			
9. On a scale of 1 - 10 (1 = least 10 = most) indicate your over all stress level today.			
10. What time did you go to sleep?			

<u>Question #1:</u> Food Prevalence over 3 days



N=12

<u>Raw Data:</u>

Eggs: 7

Sandwich: 10

Salad: 6

Meat: 22

Vegetables: 24

Fruit: 11

Yogurt: 5

Fish: 4

Baked Goods: 13

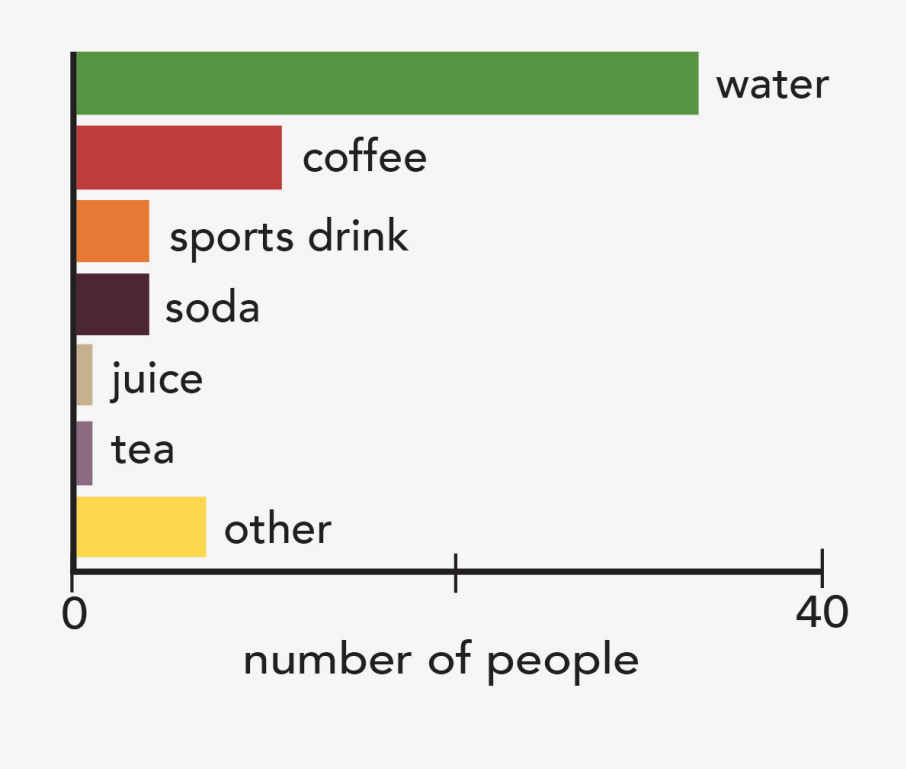
Cereal/ Granola: 10

Fast-food: 14

Other/ miscellaneous: 15

This question aimed to find the prevalence of different foods over 3 days. Each time a food from one of the above categories was mentioned in a log, the food category received 1 tally mark. The top 3 groups that were mentioned most are vegetables, meat, and fast-food. Vegetables has 24 mentions, meat had 22, and fast-food had 14. Not far behind fast-food were baked goods with 13 mentions, fruit with 11 mentions, cereal/granola and sandwiches, both with 10 mentions. This question was meant to just get an idea of the types of foods people are eating for the most part. It is a bit surprising that vegetables were the number 1 mentioned food, but it is also interesting that there was then such a large gap between meat and fast-food. In the survey research method, question #4 found that 70% said it was somewhat to extremely important for them to eat healthy foods everyday. The results from this question in the log did not fully support this finding. For some people it did, and they ate mostly healthy foods throughout the day. Others did not at all. Specifically, some people reported eating fruits and vegetables every day, while others did not at all. This supports information found in survey question #9 on fruit and vegetable intake.

<u>Question #2:</u> Fluid prevalence over a 3 day span:



N=12

<u>Raw Data:</u>

Water: 33

Coffee: 11

Sports Drink: 4

Soda: 4

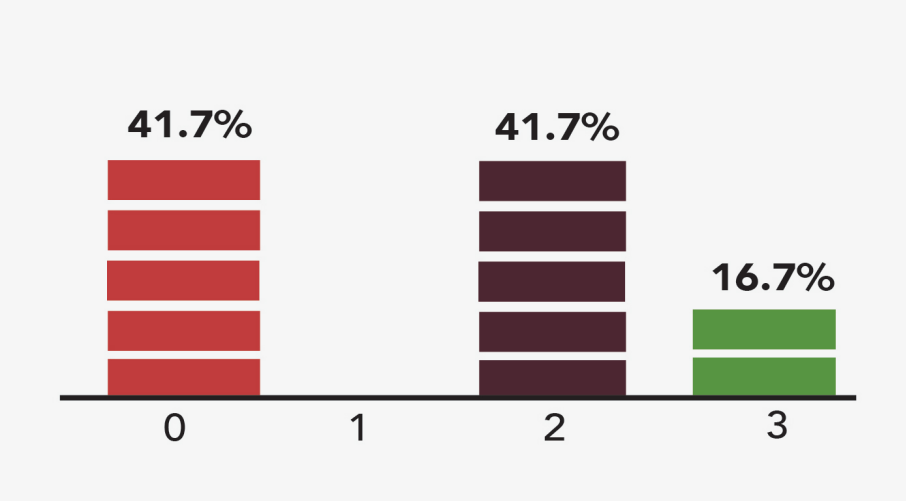
Juice: 1

Tea: 1

Other: 7

Like the previous question regarding food prevalence, this question examined the types of drinks people drank over 3 days. Water was the most mentioned drink, with 33 mentions, with coffee as the second most popular drink, at 11 mentions. The rest of the findings wee much lower and fairly insignificant compared with these top 2 results.

<u>Question #3:</u> Number of Days Exercised



N=12

<u>Raw Data:</u>

0 days: 5

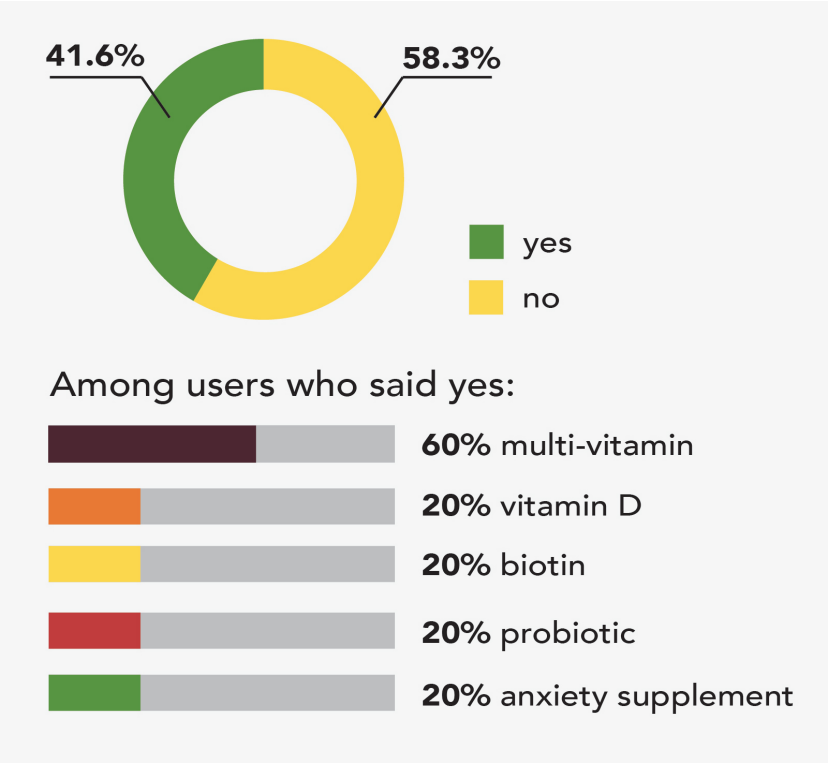
1 day: 0

2 days: 5

3 days: 2

This question aimed to see the amount of times people exercised over 3 days. 41.7% did not exercise any of the days, 0% exercised 1 day, 41.7% exercised 2 of the days, and only 16.7% exercised all 3 days. This finding seems consistent with data from the survey research method question #4 which found that only 30% of respondents ranked “exercising regularly” as in their top 3 most important activities.

<u>Question #4:</u> Do you take supplements?



N=12

<u>Raw Data:</u>

Yes: 5

No: 7

Among people who said yes:

Multi-vitamin: 3

Vitamin D: 1

Biotin: 1

Probiotic: 1

Anxiety supplement: 1

There was no question in the survey research method exploring supplement usage, but this information was still interesting to compare in contrast to the eating habits found throughout the logs. Out of the 12 logs completed, 5 people reported taking supplements occasionally or regularly. For the most part, people who mentioned eating healthier foods in their logs also seemed to take supplements. Of the 7 people who did not report taking any type of supplement, they seemed to report eating somewhat unhealthier foods. This comparison was not studied in depth, but may be interesting to compare further in the future.

Conclusion:

The survey allowed me to get an idea of people's opinions and self-reported habits, while the log provided real-life information on the same topic over 3 days. For the most part, habits in the logs reflected the information found in the survey data for some people. Overall, students in both methods seemed somewhat concerned about eating habits and the types of food they consume, with some being more concerned than others. The types of foods that were found in the log reflected the level of consciousness towards healthy eating reported in the surveys for some people.

If I were to design a conventional project based on the outcomes of this research, an idea could be to provide students with tips and information on what constitutes, "healthy foods" and some ways they can easily integrate these things into their diets and daily life. Although some healthy foods are much more expensive, there are some that are very affordable and can be substitutes for less healthy options. Eating healthy doesn't aways have to mean fresh, organic kale salad, and something as simple as throwing some walnuts onto an easy salad, provides health benefits. Also, some information regarding foods and their vitamin content and health benefits may be interesting and cause students to want to eat them more readily due to the immense benefits that they otherwise may not know about.

I was a bit surprised about how few logs were returned to me, fully completed. I gave out about 35 total in various classes, and only got back less than half of them. Plus, some were not even fully completed, so I did not get the data I was looking for in some cases. Also, organizing the data collected and figuring out how to display it was very tedious and was a bit of a challenge in the log method due to there being multiple days of information to work through.

If I could do anything different, I would try to focus the questions in the log more on food habits, rather than overall health and wellness habits. Though the bigger picture is interesting to look at, it would require much more time, effort, participants, and in-depth research to try to make meaningful connections and find correlations between each individual piece. This is an interesting topic to me, and I would possibly want to do more research on it next year.