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An Analysis Of How Stress Impacts Dietary Habits In First-Year Students

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Thesis Summary

The majority of students will experience stress during their first year at college. Stress can have many ill effects on the well-being of a first-year student and can even be a significant factor in weight gain – hence the term “The Freshman 15”. Sixty seven first-year students at the University of South Carolina were recruited to participate in a sixteen-item questionnaire focused on analyzing the relationship between stress and dietary habits. It was hypothesized that first - year students who had higher levels of stress would have significantly more unhealthy eating habits than first-year students who had lower levels of stress. A two-sample t-test found that the high-stress group’s dietary habits were not significantly more unhealthy when compared to the low-stress group’s dietary habits ($p > 0.05$).

Introduction

The transition to college life can be difficult for many students as it involves the adjustment to adulthood and the acceptance of increased responsibility. Many first-year students are experiencing life on their own for the first time without supervision from their parents. In 2019, 58.7% of undergraduate students reported having “more than average stress” or “tremendous stress” within the last 12 months (American College Health Association, 2019). Additionally, first-year students entering college often experience some form of stress during their first year (Serlachius et. al, 2007). One study found that first-year students had higher levels of stress and lower levels of emotional well-being compared to second, third and fourth-year students (Garett et al., 2018). Individuals with higher stress levels are more likely to have a lower quality of sleep and more likely to experience emotions of anger and fear (Garett et al., 2018).

Stress can be defined as the body’s non-specific response to demand for change, and the three types of stress include physical, metabolic and psychosocial (Wongvibulsin, 2014). Physical stressors include fatigue, overtraining during workouts and surgery (Wongvibulsin, 2014). Metabolic stressors relate to hormonal imbalance, chronic inflammation or exposure to harmful substances while psychosocial stressors consist of dealing with instances of death, school examinations and divorce (Wongvibulsin, 2014). The duration of stress often determines whether stress is acute (immediate response) or chronic (response over prolonged period) (Wongvibulsin, 2014).

Common stressors in college include poor sleeping and eating habits, a lack of social activities, and poor academic performance (Acharya et al., 2018). Another study showed that financial difficulties, parental troubles, relationship problems, and public speaking were also major stressors within the lives of college students (Bulo & Sanchez, 2014). However, it is

important to note that not all stress is bad stress. Eustress, commonly referred to as good stress, can be beneficial for the physical and mental health of the body while distress is seen as detrimental and often impedes performance (Sahler & Carr, 2009).

Stress can have major impacts on dietary habits, such as causing overeating and undereating (Torres & Nowson, 2007). Research has shown that university students (67%) select unhealthy foods when stressed (Kandiah et al., 2006). Unhealthy foods are often highly processed and lack nutrients such as vitamins and minerals (American Heart Association, n.d.). They often contain refined flours as well as high levels of sugar and sodium (American Heart Association, n.d.). Poor dietary habits could be exacerbated in first-year students considering their heightened stress levels even greater than those seen in other university students (Garett et al., 2018). Increased stress levels in first-year students have been associated with weight gain and also weight loss (Serlachius et al., 2007).

Previous studies that have analyzed the relationship between stress and dietary habits have found that students who report higher stress have fewer healthy dietary behaviors such as eating more fast food and ready-prepared meals (Choi, 2020). One study found that first-year students who were moderately stressed were less likely to eat fruits and vegetables compared to first-year students who were not stressed (Papier et al., 2015). The researchers also found that female first-year students who experienced moderate stress were over twice as likely to consume processed foods compared to female first-year students who were not stressed (Papier et al., 2015).

Another study found that stress was significantly associated with consumption of soda, energy drinks, fast food and salty snacks in college students (Errisuriz et al., 2016). They also found that students increased their caffeine intake in the form of energy drinks, coffee and soda

when faced with stressors (Errisuriz et al., 2016). Finally, they found that stressed students often consumed quick and accessible foods that were energy-dense yet were nutritionally poor (Errisuriz et al., 2016). A separate study discovered that convenience was the most important factor in choosing which food to eat for university students (Marquis, 2005).

Researchers found that as the number of daily hassles increased within an individual's life, so did the consumption of foods with higher fat and sugar contents while the consumption of fruits and vegetables decreased (O'Connor et al., 2008). Another study found that students who ate breakfast seven days a week as well as those that ate three meals a day reported the highest levels of happiness (Lesani et al., 2016). Finally, positive emotions were more likely in students who ate eight or more servings of fruits and vegetables per day (Lesani et al., 2016)

The Freshman 15 is a term commonly used in reference to the weight gain experienced by first-year university students during their acclimation to college. Previous research has pointed to snacking, larger portion sizes and inactivity as explanations for the sudden increase in weight (Mihalopoulos et al., 2008). The weight gained among freshman students has been shown to be statistically significant when compared to weight gain experienced by the general population (Mihalopoulos et al., 2008). Although many freshmen gain weight during their first year at school, it is important to note that very few gain fifteen pounds (Mihalopoulos et al., 2008).

First-year students will be the focus population of this study. First-year students have not had as much time as older students within the university to find effective ways to cope with stressors. Possible coping strategies include utilizing time management skills, speaking with a therapist and developing proper sleep habits. As a result, stressors may cause larger disruptions in their life and have a more significant impact on their dietary habits. The majority of first-year

students who live in residence halls rely on the campus dining locations. This may cause them to buy prepared food that is convenient yet detrimental to their health. I will be specifically analyzing the relationship between stress and dietary habits in first-year students.

At the University of South Carolina, there are 5,848 first-year students currently enrolled (Stensland, 2020). As a part of university requirements, first-year students living on campus must purchase a meal plan with a pre-set number of meals (Carolina Food Co., n.d.). Dining options on campus include three residential dining halls as well as thirty-three individual food locations presenting a variety of dining options for first-year students (Carolina Food Co., n.d.). The university also provides labels on all of the food items they prepare, and they include: organic (O), vegan (VG), local (L), and vegetarian (V) (Healthy Carolina, 2016).

Yet it's important to note that many of these locations serve fast food which often contain higher caloric and saturated fat contents and would not be nutritionally beneficial to students. Events like Chicken Finger Wednesday and Fried Chicken Friday have become commonplace at the University of South Carolina (Pita, 2014). Staff of the food locations that served these options noted that while they knew chicken fingers and fried chicken were not the healthiest options, they were great comfort foods for students (Pita, 2014).

Methodology

First-year students were recruited from residence halls and University 101 classes within the University of South Carolina to participate in a questionnaire. The majority of first-year students live in the nineteen residence halls on the University of South Carolina campus so it was an ideal location to target participants. Additionally, University 101 is an introductory course specifically for first-year students which also made it an effective approach to deliver the questionnaire to my desired population.

There were no other requirements to participate in the questionnaire other than self-identification as a first-year student. The questionnaire was completely anonymous as no identifying information, such as name or email, was required for participation. By creating a questionnaire that was completely anonymous, the belief was that students would be forthright with their responses to questions evaluating their stress levels or dietary habits, potentially sensitive topics.

The questionnaire was created and delivered to participants through Google Forms. It was designed to be completed in under five minutes to increase response rates. No incentives were offered for participating in the survey. A consent form was displayed to students, before they began the questionnaire, to confirm their desire to participate. The questionnaire consisted of two sections: one that focused on stress and a second that focused on dietary habits. Sixteen questions were presented to each participant with ten questions on stress and the remaining six questions on dietary habits.

The ten questions on stress were taken from the widely used Perceived Stress Scale-10 item (PSS-10). The scale was designed to be assess stress levels over the past month (Cohen & Williamson, 1988). The questions are straightforward and are not specific to any distinct population (Cohen & Williamson, 1988). The PSS-10 has been found to be effective in measuring the response to distress and the ability to cope with different stressors (Lee, 2012). Possible responses to the PSS-10 were listed as followed: never, almost never, sometimes, fairly often and very often.

The six questions on dietary habits focused on the frequency of eating various foods and food groups. The dietary habit questions were self-created to ensure the questionnaire was an appropriate length. The purpose of the dietary habit questions was to get a better understanding

of what students were eating throughout a typical week. Some of the questions focused on unhealthy eating habits such as “How often do you eat fast food” and “How often do you drink sugary beverages” while other questions focused on healthier eating habits such as “How often are fruits and vegetables a part of your meals”. Responses to dietary habit questions varied depending on the question but followed two general patterns. The first pattern was never, 1-3 times per week, 4-6 times per week and 7 or more times per week while the second pattern was never, often, sometimes and always. The full questionnaire can be found in the Appendix section.

The results were analyzed through the statistical software Minitab. The mean score of each question on the PSS-10 was calculated as well as the standard deviation for each question. Next, the mean score of the PSS-10 for the entire sample was calculated as well as the standard deviation for the entire sample. Finally, participant results were grouped based on their perceived stress levels established from the instrument’s scoring. The three possible groups were high stress, moderate stress and low stress. Scores from the dietary habits section were calculated and averaged out for each of the three groups. A two-sample t-test was then performed to determine if the averages from each of the three groups was statistically significant.

Results

It was hypothesized that there would be a strong correlation between stress and dietary habits. Specifically, students who scored higher on the PSS-10 would also score higher on the dietary habits section, indicating poorer eating habits. My results will show that students categorized as high stress will have significantly higher scores on the dietary habits section compared to those in the sample categorized as low stress.

$$H_0 = \mu_H = \mu_L$$

$$H_A = \mu_H > \mu_L$$

The PSS-10 was scored by assigning a numerical value to each of the five responses. Those values are as followed: never = 0, almost never = 1, sometimes = 2, fairly often = 3, and very often = 4. The numerical values were reversed for questions 4, 5, 7 and 8 as these questions are considered positively worded questions compared to the other six which would be considered negatively worded. Scores range from 0 to 40 with lower scores indicating lower perceived stress and higher scores indicating higher perceived stress. The mean score on the PSS for all 67 students was 19.72 with a standard deviation of 6.53 (M = 19.72, SD = 6.53).

Next, the responses to the dietary habits were scored by assigning a numerical value to each response, similarly to how the PSS-10 was scored. Each response was scored from 0 to 3: never = 0, sometimes = 1, often = 2, always = 3. The second set of possible responses were scored as followed: never = 0, 1-3 times per week = 1, 4-6 times per week = 2, 7 or more times per week = 3. Finally, the third set of possible responses were scored as followed: never = 0, 1-2 times per day = 1, 3-4 times per day = 2, 5 or more times day = 3.

Questions 11 and 15 involved healthy dietary habits so the numerical values were reversed for those two questions during the scoring process. A higher total score on the dietary habits section of the questionnaire indicated more unhealthy dietary habits while a lower total score indicated healthier dietary habits. The total possible score was 18. The mean score on the dietary habits section for the entire sample was 6.17 and the standard deviation was 2.72 (M = 6.17, SD = 2.72).

Scores from the dietary habits' questions were then categorized based on the participants perceived stress levels. The three categories included high-stress, moderate-stress and low-stress. Scores greater than or equal to 27 on the PSS-10 were considered high-stress, scores from 14-26

were considered moderate-stress and scores less than or equal to 13 were considered low-stress. The mean score for the high stress group's dietary habits was 5.62. The mean score for the moderate stress group's dietary habits was 6.95 and the mean score for the low stress group's dietary habits was 5.93.

A two-sample t-test was performed to see if the scores between the high-stress group's dietary habits ($M = 5.62$, $SD = 3.04$) were significantly higher than those from the low-stress group's dietary habits ($M = 5.93$, $SD = 2.22$). The value of alpha (α) was set at 0.05 for all statistical analyses performed during the data examination. The p-value was found to be 0.62 which was greater than the value of α ($0.62 > 0.05$). Therefore, the results of the t-test showed that the high-stress group's dietary habit scores were not significantly higher than the dietary habit scores of the low-stress group. Subsequent two-sample t-tests were performed to determine if there was a significant difference between any of the stress groups. The tests yielded no statistically significant results and can be found under the Appendix section.

Discussion

The results of the study did not support my hypothesis that the high-stress group would have more unhealthy dietary habits compared to the low-stress group. I expected first-year students in my sample to be experiencing more stress, as a whole, but instead found that students, on average, were experiencing only moderate levels of stress based on the PSS-10 scores. The students' dietary habits were surprising too. I expected more students to engage in unhealthy dietary behaviors, yet many of the students in my sample seem to eat relatively healthfully.

It was surprising that students did not eat fast food as often. The majority of first-year students in the sample responded that they only ate fast food 1-3 times per week. Since first-year

students are still adjusting to the demands of college classes and developing their time management, I expected students to consume more fast food due to the convenience it offers. Another piece of interesting data was that only 27% of students in the sample “Always” ate three meals per day. Eating less than three meals per day could make students more prone to weight gain. It would be intriguing to do further research to discover more of what determines the number of meals students eat each day. It was also fascinating to see that students were not consuming a large quantity of sugary beverages. The majority of participants (82.1%) said they consume sugary beverages such as soda, juice, and energy drinks either “never” or “1-3 times per week.” A previous study found that sugary beverages were the top calorie source for teenagers and contributed 226 calories each day to their daily calorie total (National Cancer Institute, 2006).

One limitation of the study was the lack of a control group in which to compare the results of the first-year sample. Another possible limitation could be the timing of when the student filled out the questionnaire during the semester. Students may be more stressed if they filled out the questionnaire during a week when they had many exams, projects, presentations etc. or less stressed if they did not have any big commitments that week. Finally, the sample size of the study (n = 67) was relatively small based on the size of the University of South Carolina’s first-year class. The questionnaire was only available to students online so the convenience sample may not have been representative of the greater student population at the University of South Carolina. If subsequent studies were to be performed, more participants should be recruited for greater accuracy in the results and to reduce the likelihood of random error.

It is also important to note that my results were collected in the midst of the COVID-19 pandemic. Although the effects of the COVID-19 pandemic on the mental health of college-aged

students may not be fully known, studies have shown that students have been more stressed and anxious during the pandemic (Son et al., 2020). During the Spring of 2020, many Universities in the United States, including the University of South Carolina, moved classes to a virtual format and forced students out of their on-campus residences. A large number of students were isolated from their friends due to social distancing policies enacted to prevent the transmission of COVID-19. Their own health and the health of close family members may have become a larger priority due to the unknown nature about the progression and mortality of the virus.

Additionally, once students returned to campus or came to campus for the first time, they may have been detached from others as a result of stricter university policies in place due to COVID-19. Many courses in the Fall were conducted entirely on a virtual format and minimal in-person events were held throughout the semester. As a result, more students could have experienced prolonged isolation which can have profound effects on an individual's mental health. It is critical that the university continue to think of ways to create an environment where students can interact with each other in a safe manner. The abrupt change in lifestyle experienced by students throughout the COVID-19 pandemic could have a significant impact on their mental health.

The University of South Carolina offers mindfulness and meditation classes as well as stress management and wellness sessions (Student Health Services, n.d.). A trained facilitator is available to lead students through meditation and mindfulness sessions which have been recommended to treat anxiety, pain, depression, panic attacks, and sleeping troubles (Student Health Services, n.d.). The Student Health Services department also provides a trained therapy dog who to assist students who are looking to reduce their stress levels (Student Health Services, n.d.).

The University of South Carolina is currently addressing nutrition education even during the COVID-19 pandemic through virtual workshops, coaching and classes (Student Health Services, n.d.). They offer healthy eating workshops throughout the semester where a group of students can meet with a Registered Dietician (RD) for an hour-long session (Student Health Services, n.d.). Students gain insight in identifying healthy options both on and off campus while also learning how to budget for healthful food and groceries (Student Health Services, n.d.). The university also offers individualized coaching which provides more tailored guidance to achieve a nutritious lifestyle (Student Health Services, n.d.). Additionally, a Farmer's Market is held on Greene Street weekly during the spring semester where students have the opportunity to purchase fresh produce from local farmers while also being able to view healthful cooking demonstrations sponsored by the university (Student Health Services, n.d.).

Implications for Future Research

Further research could be conducted by having participants use a tool such as the Automated Self-Administered 24-hour (ASA24) Dietary Assessment Tool which would more accurately convey dietary habits. The ASA24 is a detailed tool that allows participants to track single or multi-day food records (National Cancer Institute, 2020). More demographic variables could be collected in future questionnaires to compare the differences in gender, race, major and even socioeconomic status. Incorporating a question about cooking would be useful since several of the residence halls on the University of South Carolina's campus are apartment style and contain kitchens.

It would also be interesting to research the role that alcohol plays within the student's mental health and dietary habits. Alcohol can have many negative effects on one's health and has been determined to be the leading cause of disability-adjusted life years (DALYs) around the

world or those between the ages of 15-49 (Burton & Sheron, 2018). It would be fascinating to look at the amount of alcohol consumed per week by students and whether those students that consumed alcohol had greater stress as well as different dietary habits. This could be accomplished by adding questions regarding estimated alcohol consumption.

It was challenging to recruit first-year students to complete the questionnaire due to the lack of incentives. Adding an incentive for completing the questionnaire, such as a gift card, may have increased the response rates. It may have also been beneficial to ask students directly in the questionnaire if they typically eat more or less when feeling stressed. Additionally, it may have been helpful to include a definition of the wording “fast food” on the questionnaire due to the possible differing interpretations.

Another challenge was adjusting my thesis timeline due to the COVID-19 pandemic. I initially planned to survey 250 first-year students in the Spring of 2020. However, after first-year students were removed from their residence halls last Spring, the data collection portion of the thesis moved to the Fall. Data collection was more difficult due to the smaller time window available to collect data, analyze the data and then complete the final paper.

Conclusion

The results of the study did not support my hypothesis that students who experience high-stress do not have dietary habits that are significantly more unhealthy than students who experience low-stress. I was disappointed that the results did not show more of an association between stress and dietary habits. Yet, I believe this was due to the small sample size within the study (n = 67). Although more research needs to be conducted before drawing definitive conclusions, this study shows that first-year students, as a whole, may be more adept at handling stressors than previously thought. It also sheds some light on the phenomenon of “stress-eating”

of unhealthy foods. The high-stress groups would be more likely to “stress-eat” more unhealthy foods compared to the moderate-stress and low-stress groups. Yet, the results show that this isn’t really the case. Stress-eating of unhealthier foods may not be associated as much with the college student population as previously thought.

More first-year students could have discovered other coping strategies to deal with stress. Students may be benefiting from the improved dining halls or food locations around the University of South Carolina’s campus. These eateries may be serving healthier options that prioritize fruits and vegetables while limiting fast food options. During recent renovations to the university’s student union, Russell House, both a Taco Bell and Pizza Hut location were torn down and replaced with healthier options (Fedor, 2020).

It is also possible that students are entering college with better eating habits depending on the region they grew up or based on their family’s socioeconomic status. High schools could be promoting and offering more lifestyle classes which emphasize how to prepare, select and eat healthier foods. Students may be drinking fewer sugary beverages due to the removal of vending machines that contained unhealthy foods in high schools as a part of policies enacted by the U.S. Department of Agriculture (Child Nutrition Policy, 2013). Additionally, students could be utilizing nutrition resources on campus or taking part in stress-reducing activities such as physical activity, meditation and mindfulness groups.

The University of South Carolina, along with universities around the country, works to optimize the college experience for their students which includes continuously trying to improve their dining options. Although larger state schools may have more resources to perfect the variety of food they can offer, it may also mean more food court approaches which could contain restaurants with unhealthy options. Ultimately, colleges and universities want their dining plans

to appeal to students. Universities should prioritize offering healthy options to all of their students but especially first year and residential students who eat most of their meals on campus. Carolina Food Co., the University of South Carolina food provider, offers resources including dietician recommendations for each of the food locations on campus (Carolina Food Co., n.d.).

Nonprofit groups such as the Partnership for A Healthier America (PHA) are also influencing the way students eat (PHA, 2020). PHA created a Healthier Campus Initiative forming partnerships with colleges and universities around the country to improve the campus nutritional landscape (Lee, 2018). The recommendations revolve around increasing the amount of fruits, vegetables and whole grains while decreasing the amount of fried foods and sugary beverages (PHA, 2020). Sixty-seven colleges and universities in the United States were a part of the initiative as of 2018 and that number is growing (Lee, 2018). By surrounding students with healthier options in campus dining halls, their goal is to encourage them to consume more nutritious foods both in college and beyond into their adult life (Lee, 2018).

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Appendix

Table 1

Descriptive Statistics for the Ten Questions on the Perceived Stress Scale 10 (PSS-10)

Question Number	N	Mean (M)	Standard Deviation (SD)	95% CI
1	**67**	**2.269**	**0.898**	**(2.050, 2.488)**
2	**67**	**2.328**	**1.064**	**(2.060, 2.588)**
3	**67**	**2.806**	**0.909**	**(2.584, 3.028)**
4	**67**	**1.284**	**0.670**	**(1.120, 1.447)**
5	**67**	**1.761**	**0.761**	**(1.576, 1.947)**
6	**67**	**1.866**	**1.153**	**(1.584, 2.147)**
7	**67**	**1.746**	**0.766**	**(1.560, 1.933)**
8	**67**	**1.627**	**0.832**	**(1.424, 1.830)**
9	**67**	**2.075**	**1.034**	**(1.822, 2.327)**
10	**67**	**1.985**	**1.148**	**(1.705, 2.265)**

Table 2.1

Results for the Responses to Questions on Dietary Habits (N = 67)

	Never	Sometimes	Often	Always
How often do you eat three meals per day?	**20.9%**	**25.4%**	**26.9%**	**26.9%**
How often do you eat dessert at the end of a meal?	**22.4%**	**52.2%**	**23.9%**	**1.5%**
How often are fruits and vegetables apart of your meals?	**1.5%**	**25.4%**	**41.8%**	**31.3%**

Table 2.2

Results for the Responses to Questions on Dietary Habits (N = 67)

	Never	1-3 times per week	4-6 times per week	7 or more times per week
How often do you eat fast food?	**17.9%**	**59.7%**	**19.4%**	**3%**
How often do you drink sugary beverages?	**43.3%**	**38.8%**	**6%**	**1.9%**

Table 2.3

Results for the Responses to Questions on Dietary Habits (N = 67)

	Never	**1-2 times per day**	**3-4 times per day**	**5 or more times per day**
How often do you snack on salty or sweet foods?	**12.1%**	**65.2%**	**19.7%**	**3%**

Table 3

Results of the Two-Sample T-Test for Each Stress Group's Mean Dietary Habits Score

	P-Value
High-Stress Group vs. Moderate-Stress Group	**0.91**
(Mean of High-Stress Group > Mean of Moderate-Stress Group)	
High-Stress Group vs. Low-Stress Group	**0.62**
(Mean of High-Stress Group > Mean of Low-Stress Group)	
Moderate-Stress Group vs. Low Stress Group	**0.09**
(Mean of Moderate-Stress Group > Mean of Low-Stress Group)	

***denotes statistical significance at α = 0.05**

Table 4

Descriptive Statistics for the Dietary Habits Questions (N = 67)

	Mean (M)	**Standard Deviation (SD)**
All Study Participants	**6.17**	**2.72**
High-Stress Group	**5.62**	**3.04**
Moderate-Stress Group	**6.95**	**2.75**
Low-Stress Group	**5.93**	**2.22**

Consent to Participate Form

Honors College Senior Thesis Questionnaire

Title of Project: An Analysis of How Stress Impacts Dietary Habits in First-Year Students
Student Researcher(s): Matthew Telfer - mattstelfer@gmail.com, (859) 537-4990
Faculty Mentor and Supervisor: Dr. Kara Montgomery - karam@sc.edu, (803) 777-0057

1. Project Purpose: You are invited to participate in a project conducted as part of the Honors College Senior Thesis at the University of South Carolina. The purpose of this Senior Thesis is to help students to improve their knowledge and provide experiences with research techniques and methods. For this project, I am analyzing the relationship between stress and dietary habits for first-year students at the University of South Carolina.

All information collected will be de-identified, aggregated and analyzed. Your name will not be connected to your responses or with the information collected about you. All information obtained will be treated confidentially.

2. Procedures to be followed: If you agree to participate, you will be asked to complete a 16-question survey.
3. Duration/Time: Your participation will require 5 minutes.
4. Statement of Confidentiality: Your participation in this project is confidential and safeguards are in place to protect your confidentiality.
5. Right to Ask Questions: If you have any questions or concerns, feel free to contact my mentor or Office of Undergraduate Research at 803-777-1141 or our@sc.edu
6. Voluntary Participation: Your decision to be in this project is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.

If you wish to participate, please select "Yes" below.

○ Yes

Next

Perceived Stress Scale – 10 Section

Honors College Senior Thesis Questionnaire

Questionnaire

In the last month, how often have you been upset because of something that happened unexpectedly?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you felt you were unable to control the important things in your life?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you felt nervous and "stressed"?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you felt confident about your ability to handle your personal problems?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you felt that things were going your way?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you found that you could not cope with all the things you had to do?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you been able to control irritations in your life?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you felt that you were on top of things?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you been angered because of things that were outside of your control?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

In the last month, how often have you felt that difficulties were piling up so high that you could not overcome them?

- ◯ Never
- ◯ Almost Never
- ◯ Sometimes
- ◯ Fairly Often
- ◯ Very Often

Dietary Habits Section

How often do you eat three meals per day (breakfast, lunch and dinner)?

- Never
- Sometimes
- Often
- Always

How often do you eat fast food (burgers, fried chicken, pizza)?

- Never
- 1-3 times per week
- 4-6 times per week
- 7 or more times per week

How often do you eat dessert at the end of a meal?

- Never
- Sometimes
- Often
- Always

How often do you drink sugary beverages (soda, juice, energy drinks etc.)?

- ◯ Never
- ◯ 1-3 times per week
- ◯ 4-6 times per week
- ◯ 7 or more times per week

How often are fruits and vegetables apart of your meals?

- ◯ Never
- ◯ Sometimes
- ◯ Often
- ◯ Always

How often do you snack on salty foods (chips) or sweet foods (chocolate, candy) throughout the day?

- ◯ Never
- ◯ 1-2 times per day
- ◯ 3-4 times per day
- ◯ 5 or more times per day