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For years, the experience of headache and migraine have been studied to determine what causes or perpetuates headache in terms of their frequency, duration, and intensity. Research has indicated that there is no simple answer to this question; depending on the individual, an array of different factors can contribute to or worsen the experience of headache. However, one phenomenon has become clear through years of research: headache is perpetuated by disruption to lifestyle. For individuals who experience headache, the frequency, duration, and severity of headache can worsen when the individual's lifestyle behaviors like sleep habits, eating habits, level of stress, physical activity, etc. are dysregulated. A sleep disturbance, which could be too much sleep, too little sleep, inappropriate timing of sleep, or inappropriate sleep behavior can be a trigger for headache (Dosi 2015). Likewise, irregularity in intake of meals, which can be due to skipping a meal (often breakfast), altering mealtimes, or eating frequently between meals can be a trigger for headache (Moschiano 2012).

Individuals with Attention Deficit Hyperactivity Disorder (ADHD) are prone to dysregulation in lifestyle behaviors. Attention Deficit Hyperactivity Disorder (ADHD) and Attention Deficit Disorder (ADD) are defined as causing symptoms of hyperactivity, impulsivity, and/or inattention in individuals affected by it (Frampton 2018). Individuals with ADHD/ADD are more likely to struggle with maintaining a regulated lifestyle as ADHD/ADD cause individuals to be more forgetful, more impulsive, and lack control over their own thoughts and attentiveness. A prior research study conducted by the European Child & Adolescence Psychiatry investigated sleep, chronotype, and sleep hygiene in children with ADHD and autism disorder (van der Heijden 2018). It found that children with ADHD had significantly later sleep onset and shorter sleep duration than the control group—children without ADHD (van der

Heijden 2018). No research could be found examining the relationship between skipping meals and having ADHD specifically.

Individuals with ADHD/ADD may be more likely to experience headache due to a more dysregulated lifestyle. A prior study conducted by the K.G. Jebsen Centre for Research on Neuropsychiatric Disorder at the University of Bergen in Norway examined the relationship between ADHD symptoms and migraines as well as other comorbid conditions (Fasmer 2011). In this study, the researchers found that adult patients with persistent ADHD had more frequent migraines as compared to the control group (Fasmer 2011). In a systematic review and meta-analysis of literature conducted by the Neuropsychiatry Program at the University of Texas Health Science Center, researchers analyzed the relationship between having ADHD and experiencing migraine or tension-type headache (Salem 2018). Their results showed a significant association between migraines and ADHD yet no definitive association between headache in general and ADHD. More research needs to be conducted to further understand whether headache in general are worsened or triggered by having ADHD.

Recreational usage of stimulant drugs such as Adderall and Vyvanse, which are designed specifically to treat symptoms of ADHD and ADD, is rampant on many university and college campuses. Individuals who take stimulant drugs may also be more likely to experience headache. Stimulant drugs used to treat ADHD/ADD, such as Adderall, Vyvanse, and the generic forms of each, are known to have the following side effects: loss of appetite, insomnia, irritability, weight reduction, and headache (Frampton 2018). Not only is headache a potential side effect of these stimulant drugs, disruption of many lifestyle factors which have been linked with triggering headache are also side effects. This begs the question: is headache experience worsened and or triggered because of having ADHD/ADD or because of taking stimulant drugs to treat

ADHD/ADD? No research has been conducted to explicitly examine the potential relationship between stimulant drug usage and headache experience, thus we propose to lay the foundation to fill this gap in knowledge.

We have chosen college undergraduate students as our test sample because of the rampant recreational Adderall and Vyvanse usage across many college and university campuses in the United States. College-aged individuals with ADHD and/or ADD have not been represented in the past literature examining ADHD/ADD and headache experience. Some lifestyle factors are uniquely characteristic of a college-aged population: increased stress, dysregulated mealtimes, dysregulated sleeping and waking times, and usage of drugs to enhance school performance. Because college-aged individuals are often living on their own for the first time without a parent or guardian present to regulate their eating or sleeping habits, they are more likely to have dysregulated lifestyle behaviors than other age groups of adults. The limited research conducted on understanding the association between ADHD/ADD and headache has either been conducted on children or adults ages 18 to 65. No research has focused specifically on the young adult college-aged population alone. The lifestyle of an 18 year old is vastly different than that of a 65 year old so research needs to be conducted specifically on a more limited aged group to fully understand whether a relationship exists.

Due to the vast gaps in research conducted on this topic there is a clear need for more research. While some studies have been conducted to investigate the relationship between headache and ADHD/ADD or headache and stimulant medication, or ADHD/ADD and stimulant medication, almost no research has been conducted to understand the relationship of all three, let alone for undergraduate college students. In this study we aim to explore the potential combined and independent impacts that having ADHD/ADD and taking stimulant drugs have on disrupting

one's lifestyle and examine whether dysregulated lifestyle factors contribute to one's headache experience. We hypothesize that those with or without ADHD/ADD that take stimulant drugs will show a pattern of dysregulated lifestyle, meaning inconsistent eating and sleeping habits. Conversely, we expect that those with or without ADHD/ADD who do not take stimulant drugs will not show a pattern of dysregulated lifestyle, meaning they will have consistent eating and sleeping habits for what is expected of a population of college students. Therefore, we predict that those who take stimulant drugs with or without ADHD/ADD will have a greater degree of dysregulated lifestyle than those who do not take stimulant drugs with or without ADHD/ADD. We postulate that there will be similar patterns of headache frequency, duration, and intensity (no statistically significant difference) between the two groups of individuals who take stimulant drugs: those with ADHD/ADD and those without ADHD/ADD. Likewise, we theorize that there will be similar patterns of headache frequency, duration, and intensity (no statistically significant difference) between the two groups of individuals who do not take stimulant drugs: those with ADHD/ADD and those without ADHD/ADD. Finally, we speculate that those with ADHD/ADD who take stimulant drugs will have a greater frequency, duration, and intensity of headache experience than those with ADHD/ADD who do not take stimulant drugs.

In this study we will examine the potential relationship between having ADHD/ADD and experiencing more frequent, longer, and/or more severe headache episodes. To fully understand our results, we plan on exploring whether ADHD/ADD plays a role in the dysregulation of one's lifestyle behaviors. We will also investigate the potential relationship between taking stimulant drugs to either treat ADHD/ADD or recreationally and experiencing more frequent, longer, and/or more severe headache episodes. Similarly, we will examine whether stimulant drug usage plays a role in the dysregulation of one's lifestyle behaviors.

Methods

In our cross sectional control study, participants were categorized into one of four groups based on whether or not they have ADHD/ADD and whether or not they take stimulant drugs, such as Adderall and Vyvanse. The four groups are as follows: those that have ADHD/ADD and take stimulants, those that have ADHD/ADD and do not take stimulants, those that do not have ADHD/ADD and take stimulants, and the control group, those that do not have ADHD/ADD and do not take stimulants. Through the computer algorithm in RedCap, we randomly assigned a record identification number to each participant so that each participants answers to the survey could not be linked back to them. The primary independent variable is the categorical group, which is based on each participant's answers to the following questions: do you have ADHD/ADD and do you take stimulants such as Adderall or Vyvanse. The dependent variables for measuring degree of dysregulation of lifestyle factors include the consistency of eating and sleeping habits. The dependent variables for measuring headache experience includes the frequency, duration, and severity of headache. This study has been approved by the University of Connecticut IRB. All participants in the study have given their consent to participate in the study by signing informed consent forms.

Participants

To be eligible to participate in the study, UConn undergraduate students must be between the ages of 18 and 40 and experience on average at least 2 diagnosed or undiagnosed headaches or migraines a month. Sampling methods involved sending out email blasts, which included a link to the survey, in the UConn Undergraduate Student Daily Digest, UConn Health Lifeline, CAHNR/RHSA Student Digest, Sociology Undergrad Digest, Neag School Student News, New to Storrs, News for International Students & Scholars, & Philosophy Undergrad Digest; the

investigator making announcements at the beginning of several classes; and professors within CAHNR (College of Agriculture Health and Natural Resources) making announcements to their students. All sampling methods were geared towards reaching a wide breadth of UConn students to recruit a random sample of UConn undergraduates. Two hundred thirty-one ($n = 231$) students responded to the recruitment efforts, of which 12 did not complete the survey and 42 did not meet the eligibility requirements. The remaining 177 students participated in the study.

Participants were not compensated for participation in the study.

Survey

Participants engaged in an electronic 10-minute survey over RedCap which asked for their demographics, eligibility information, presence or absence of ADHD/ADD diagnosis, stimulant medication usage, headache experience, and lifestyle behaviors. The survey consisted of a total of 20 questions; however, participants were asked a total of 15 or 19 questions depending on their responses to questions on stimulant drug use. Participants were required to answer every question, but for every question participants could select the answer option “I do not wish to disclose” if they were not comfortable giving an answer.

The survey included 4 demographic questions with drop down answer options that did not ask participants for any identifiable information. The following demographic information was collected gender, age, race, and year in college. Participants were asked one yes or no question regarding their eligibility—do you experience at least 2 headaches or migraines a month? (does not have to be diagnosed). The eligibility question was programmed with a stop function that triggered the survey to end when a particular answer was selected. If a participant answered “no,” then a window would pop up stating “you have selected an option that triggers

this survey to end right now” and prompting them to click either “end the survey now” or “continue survey and undo last response.”

All participants were asked if they have been diagnosed with ADHD or ADD, to which they could answer “yes” or “no”. Participants were either asked 1 or 5 questions with drop down answer options regarding their usage of stimulant medications. All participants were asked if they take stimulant ADHD/ADD medications, recreationally or as prescribed, to which they could answer “no”, “yes, I take Adderall”, or “yes, I take Vyvanse.” Participants that answered no or I do not wish to disclose, bypassed the 4 remaining questions regarding stimulants. Those that answered yes, were ask 3 of the 4 possible remaining questions regarding stimulants. The question that followed asked participants what dosage in mg they took of either Adderall or Vyvanse. Because the dosage increments of Adderall and Vyvanse differ considerably, there are two separate dosage questions: one for those that answered “yes, I take Adderall” to the previous question and one for those that answered “yes, I take Vyvanse.” Next, participants were asked about the consistency with which they take stimulants. Specifically, we asked if the dosage they take varies, the number of days per week they take stimulants, and the typical time of day they take stimulants.

Participants were categorized into one of four groups based on their answers to the following two questions: “do you have diagnosed ADHD or ADD?” and “do you take stimulant ADHD/ADD medications? (prescribed or recreationally).” The four groups—ADHD/ADD stimulants, ADHD/ADD no stimulants, no ADHD/ADD stimulants, and no ADHD/ADD no stimulants—will be compared based on three measures: headache experience, sleeping habits, and eating habits.

Measures

Headache Experience

Participants were asked 3 questions with drop down answer options regarding their headache experience. They were asked the number of headache episodes they typically have in a month (answer options included values 1-11, 12 or more but not daily, and daily), the length of time their headache typically lasts (answer options included 1 hour - 16 hours, 1 day - 3 days, and longer than 3 days), and how painful their headache is (answer options included no pain, mild pain, moderate pain, and severe pain).

Sleeping Habits

Participants were asked 4 questions with drop down answer options regarding their sleeping habits. They were asked the average number of hours they sleep each night (answer options included less than 3, values 4-13), if they ever have sleepless nights (which we defined as not sleeping at all or sleeping less than a total of 2 hours), the number of times per week that their bedtime varies by more than an hour (answer options included less than once a week, once a week, 2-3 times, 4-5 times, and 6-7 times), and the number of times per week that their waking time varies by more than an hour (answer options were the same as the last question).

Eating Habits

Participants were asked 1 question with drop down answer options regarding their eating habits. They were asked the number of days per week that they skip a meal, to which they could answer values zero through seven.

Results

After survey data was collected and participants were categorized into one of four groups. There were 13 participants in the ADHD/ADD stimulants group, 8 participants in the ADHD/ADD no stimulants group, 3 participants in the no ADHD/ADD stimulants group, and 153 participants in the no ADHD/ADD no stimulants group. Due to the limited number of participants in the no ADHD/ADD stimulants group, the two no ADHD/ADD groups were collapsed into one group. Ultimately, there were three groups—ADHD/ADD Stimulants, ADHD/ADD No Stimulants, and No ADHD/ADD—to analyze and compare based on the three sets of measures.

Descriptive Statistics

Descriptive statistics on the whole participant sample and each group independently for each of the demographic, headache experience, sleeping habit, eating habit variables are included in Table 1. For this college sample, the mean headache frequency was 4.28 ($SD = 2.64$), the mean hours of sleep per night was 7.14 ($SD = 1.17$) and 59.32% of participants skip meals less than four days per week.

Demographics

There were some demographic differences in the three groups. There was a statistically significant difference in age ($F(2) = 24.94, p < 0.05$). The Tukey post hoc test revealed that participants were older in the ADHD/ADD No Stimulants group ($M = 24 \pm 6.59, p < 0.05$) and in the ADHD/ADD Stimulants group ($M = 23 \pm 4.83, p < 0.05$) as compared to the No ADHD/ADD group ($M = 19.58 \pm 1.53$). There was a statistically significant difference of college year of participants between the 3 groups ($F(2) = 8.77, p < 0.05$). The Tukey post hoc test

revealed that participants had been in college longer in the ADHD/ADD Stimulants group ($M = 3.77 \pm 1.74$, $p < 0.05$) as compared to the No ADHD/ADD group ($M = 2.17 \pm 1.31$). The Tukey test revealed that there was no difference of the college year of participants between the ADHD/ADD No Stimulants group and the other two groups. It could not be determined whether there was an association between group membership and gender or race of participants because the Chi-Square test could not be performed. The results of the Chi-Square test were invalid due to an insufficient distribution of participants that fit into each cell across the whole sample.

Headache Experience

In contrast to our hypothesis regarding headache experience, the results did not show a significant difference in headache frequency, duration, or severity between those with ADHD/ADD who take stimulants and those with ADHD/ADD who do not take stimulants. In support of the hypothesis regarding headache experience, the results did not show a significant difference in headache frequency, duration, or severity between those with ADHD/ADD who do not take stimulants and those without ADHD/ADD who do not take stimulants. Headache frequency did not differ by group ($F(2) = 0.41$, $p = 0.667$). Headache duration also did not differ by group ($F(2) = 0.62$, $p = 0.542$). The Chi-Square tests could not determine whether there was an association between group membership and headache severity due to an insufficient distribution of participants.

Sleeping Habits

In contrast to our hypothesis regarding sleep habits, the results did not show a significant difference in sleep habits between those who take stimulants and those who do not take stimulants regardless of their ADHD/ADD diagnosis. In fact, no difference was observed

between the three groups in terms of nightly hours of sleep ($F(2) = 2.13, p = 0.122$) or experience of sleepless nights ($\text{Chi-Square}(2) = 0.415, p = 0.813$). However, a difference was observed between the three groups regarding inconsistencies in bedtime ($\text{Chi-Square}(2) = 6.302, p < 0.05$) and waking time ($\text{Chi-Square}(2) = 6.865, p < 0.05$). Specifically, the results showed a relationship between having ADHD/ADD and having a more dysregulated waking and sleeping schedule. For bedtime inconsistency, the cell with the greatest contribution to the Chi-Square value was those from the ADHD/ADD No Stimulants group that have inconsistent bedtimes four or more times per week. The cell with the second greatest contribution to the Chi-Square value was those from the ADHD/ADD No Stimulants group that have inconsistent bedtimes less than four times per week. Of the 8 participants in the ADHD/ADD No Stimulants group, 7 reported having inconsistent bedtimes four or more times per week and 1 reported having inconsistent bedtimes less than four times per week. For waking time inconsistency by group was the cell with the greatest contribution to the Chi-Square value was those from the ADHD/ADD No Stimulants group that have inconsistent waking times four or more times per week. The cell with the second greatest contribution to the Chi-Square value was those from the ADHD/ADD No Stimulants group that have inconsistent waking times less than four times per week. Of the 8 participants in the ADHD/ADD No Stimulants group, 6 reported having inconsistent waking times four or more times per week and 2 reported having inconsistent waking times less than four times per week.

Eating Habits

In contrast to our hypothesis regarding eating habits, the results did not show a significant difference in eating habits between those who take stimulants and those who do not take stimulants regardless of their ADHD/ADD diagnosis. The Chi-Square test on weekly frequency

of skipping meals did not differ by group (Chi-Square(2) = 4.743, $p = 0.093$); however there was an observed trend towards an association between group and percentages of participants who skip meals at least four days per week versus those who skip meals less frequently across the three groups. The percentage of participants who skipped meals at least four days per week was 69.23% of participants in the ADHD/ADD Stimulants group, 38.46% in the No ADHD/ADD group, and 37.5% in the ADHD/ADD No Stimulants group.

Discussion

We initially intended to compare headache experience, in terms of frequency, duration, and severity of young adults with and without ADHD/ADD who do and do not take stimulants. The lack of participants without ADHD/ADD who take stimulants only allowed comparisons between three groups (No ADHD/ADD, ADHD/ADD No Stimulants, and ADHD/ADD Stimulants). We found no difference in headache experience when comparing the three groups. A prior study conducted by the K.G. Jebsen Centre for Research on Neuropsychiatric Disorders at the University of Bergen in Norway compared adult patients diagnosed with ADHD to community controls that responded to a survey asking about past and present symptoms of ADHD and migraine along with several other comorbid conditions (Fasmer 2011). The study found that adult patients with persistent ADHD had a higher prevalence of migraine than the control group (Fasmer 2011). The Neuropsychiatry Program at the University of Texas Health Science Center conducted a systematic review and meta-analysis of literature analyzing the association of ADHD with migraine and tension-type headache (Salem 2018). Their results showed a significant association between migraine and ADHD, however many of the studies that they analyzed did not look at migraine specifically, instead they investigated headache which does not have a clear association with ADHD (Salem 2018). Therefore, the results of our study were somewhat consistent with prior studies as we investigated headache in general—not migraine specifically—and found no significant difference in headache experience between those with and those without ADHD/ADD.

Although, the three groups do not differ significantly in terms of headache experience, it is still important to understand if they differ significantly in lifestyle behavior to fully answer the question this study proposes. There could be significant differences in lifestyle behavior across

the three groups that although did not manifest into significant differences in headache experience, could have clinical value or inform further research. We examined whether lifestyle behaviors differed in those with and without ADHD/ADD. A significant difference in several sleep behaviors was shown. Specifically, those with ADHD/ADD had significantly more inconsistent bedtimes and waking times during a week than those without ADHD/ADD. A prior study conducted by the European Child & Adolescence Psychiatry found that sleep onset during weekdays was later and sleep duration was shorter in those with ADHD than those in the control group (van der Heijden 2018). While we found no significant difference in number of nightly hours of sleep, those with ADHD had a more inconsistent bedtime which is consistent with the results of a delayed sleep onset found in the European Psychiatry study (van der Heijden 2018). Our results showed no significant difference in the number of days per week that participants skipped meals between those with and without ADHD/ADD. No prior research has been conducted on skipping meals and ADHD.

We examined whether taking stimulant drugs to treat ADHD/ADD could dysregulate one's lifestyle. We observed that those with ADHD/ADD who do not take stimulants have a more inconsistent sleeping schedule than those with ADHD/ADD who take stimulants. Those with ADHD/ADD who take stimulants skipped meals more frequently than those with ADHD/ADD who do not take stimulants demonstrating a trend towards significance. No prior research was conducted specifically on the number of days participants skipped meals per week or consistency of sleep schedules in those with ADHD/ADD between those who take stimulants and those who do not.

We proposed to examine whether having ADHD/ADD and taking stimulant drugs to treat it would dysregulate one's lifestyle factors. We observed no significant difference in sleep or

eating habits between those with ADHD/ADD who take stimulant drugs to those who do not. No prior research was conducted on explicitly examining lifestyle factors of those with ADHD that take stimulants as compared to those without ADHD/ADD.

The results of this study have some clinical relevance to practicing healthcare professionals as they provide some insight into the relationship between having ADHD/ADD and the dysregulation of some aspects of lifestyle behaviors. If the impact is significant enough, this could potentially lead to more frequent or worsened headache experience. Although the results showed no definitive relationship between headache experience and having ADHD/ADD or taking stimulants, the potential for a relationship is still possible and more research on the topic must be conducted. We sought to lay the foundation for more research to be conducted going forward and to highlight the lack of research conducted on this topic as a whole. Practicing clinicians, doctors, and nurses should routinely ask their patients with ADHD/ADD if they are experiencing headache or migraine and recommend that they monitor their experience. Likewise, healthcare professionals should routinely ask their patients with ADHD/ADD who take stimulants such as Adderall and Vyvanse about their eating habits and give them strategies to ensure that they are not frequently skipping meals.

One of the study's strengths is the research design. Using a cross-sectional approach that utilized an anonymous electron survey, we were able to collect data effectively and safely during a global pandemic. While our recruitment strategies were effective at generating a fair number of study participants as a whole, the number of participants in each group was unbalanced. Most notably, there was an insufficient number of participants without ADHD/ADD who took stimulants causing us to combine all participants without ADHD/ADD into one group. Although UConn is a great sample population for college-aged individuals in the U.S., it was not a great

university to investigate recreational Adderall and Vyvanse usage. As it turns out, recreational Adderall and Vyvanse usage appears to be less rampant across UConn's campus as it has been reported across other college campuses in the U.S. Additionally, there was insufficient participation and variety of responses in some groups resulting in inconclusive Chi-Square tests on certain variables. Therefore, we were unable to examine whether a statistically significant difference was present between groups for several variables. This made analyzing and interpreting the data challenging. Future studies need to be conducted investigating this question on a much larger sample. Future research should be conducted on university campuses that have prevalent recreation stimulant drug usage. However, the challenge is in writing the survey questions in a way that makes participants feel comfortable reporting that they use stimulants recreationally since Adderall and Vyvanse are federally controlled substances and recreational usage of them is illegal.

In summary, those with ADHD/ADD are significantly more likely to have a dysregulated sleep schedule and those with ADHD/ADD that take stimulants may show a pattern of skipping meals. The relationship between headache experience and ADHD/ADD diagnosis and stimulant drug usage while not significant is still unclear. Although a promising first step, future research is needed to further understand the relationships between ADHD/ADD diagnosis, stimulant drug usage, headache experience, and the dysregulation of one's lifestyle behaviors.

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Appendix

Table 1: Descriptive Statistics

	Total		No ADHD/ADD		ADHD/ADD Stimulants		ADHD/ADD No Stimulants	
<i>Number of Participants</i>	177		156		13		8	
Variables	Mean (or N)	SD (or %)	Mean (or N)	SD (or %)	Mean (or N)	SD (or %)	Mean (or N)	SD (or %)
Demographics								
Age (years)	20.03	2.64	19.58	1.53	23.00	4.83	24.00	6.59
Year in College	2.31	1.40	2.17	1.31	3.77	1.74	2.63	1.19
Gender								
<i>Male</i>	28	15.82%	23	14.74%	1	7.69%	4	50.00%
<i>Female</i>	147	83.05%	132	84.62%	11	84.62%	4	50.00%
<i>Genderqueer/Non-Binary</i>	2	1.13%	1	0.64%	1	7.69%	0	0.00%
Race								
<i>American Indian or Alaskan Native</i>	2	1.13%	2	1.28%	0	0.00%	0	0.00%
<i>Asian</i>	20	11.30%	18	11.54%	1	7.69%	1	12.50%
<i>Black or African American</i>	13	7.34%	12	7.69%	1	7.69%	0	0.00%
<i>Hispanic/Latinx</i>	17	9.60%	15	9.62%	1	7.69%	1	12.50%
<i>White</i>	108	61.02%	93	59.62%	9	69.23%	6	75.00%
<i>2 or more races</i>	13	7.34%	12	7.69%	1	7.69%	0	0.00%
<i>Other</i>	2	1.13%	2	1.28%	0	0.00%	0	0.00%
<i>I do not wish to disclose</i>	2	1.13%	2	1.28%	0	0.00%	0	0.00%
Headache Experience								
Headache Frequency	4.28	2.64	4.14	2.65	5.60	2.37	5.00	2.31
Headache Duration	5.61	9.44	5.60	9.75	7.46	8.19	2.75	2.05
Headache Severity								
<i>No pain</i>	1	0.56%	1	0.64%	0	0.00%	0	0.00%
<i>Mild pain</i>	74	41.81%	63	40.38%	6	46.15%	5	62.50%
<i>Moderate pain</i>	89	50.28%	79	50.64%	7	53.85%	3	37.50%
<i>Severe pain</i>	12	6.78%	12	7.69%	0	0.00%	0	0.00%
<i>I do not wish to disclose</i>	1	0.56%	1	0.64%	0	0.00%	0	0.00%
Sleeping Habits								
Hours of Sleep	7.14	1.17	7.20	1.15	6.54	1.45	6.88	0.99
Sleepless Nights								
<i>Yes</i>	50	28.25%	43	27.56%	4	30.77%	3	37.50%
<i>No</i>	127	71.75%	113	72.44%	9	69.23%	5	62.50%
Bedtime Inconsistency								
<i>Less than 4 times</i>	98	55.37%	90	57.69%	7	53.85%	1	12.50%
<i>4 or more times</i>	79	44.63%	66	42.31%	6	46.15%	7	87.50%
Waking Time Inconsistency								
<i>Less than 4 times</i>	118	66.67%	108	69.23%	8	61.54%	2	25.00%
<i>4 or more times</i>	59	33.33%	48	30.77%	5	38.46%	6	75.00%
Eating Habits								
Skipped Meals								
<i>Less than 4 times</i>	105	59.32%	96	61.54%	4	30.77%	5	62.50%
<i>4 or more times</i>	72	40.68%	60	38.46%	9	69.23%	3	37.50%