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A Study of College Influences on Selected Health Behaviors

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A STUDY OF COLLEGE INFLUENCES ON
SELECTED HEALTH BEHAVIORS

BY

KAITLYN KRAJANOWSKI

A RESEARCH STUDY
FOR THE PARTIAL COMPLETION OF THE
UNIVERSITY OF RHODE ISLAND
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COLLEGE OF HUMAN SCIENCE AND SERVICES
UNIVERSITY OF RHODE ISLAND

2014

ABSTRACT

Background: Studies assessing the dietary and physical activity (PA) behaviors of college students in the United States and indicate that this population is underactive and does not consume the daily-recommended servings of fruit and vegetables (F&V). Research is needed to identify factors that inhibit or promote healthful behaviors.

Objective: To determine 1) if there is an association between having a meal plan and selected dietary behaviors, and 2) whether the likelihood of using the campus shuttle and taking the stairs is associated with physical activity.

Methods: Students enrolled in an introductory anatomy class completed a voluntary online survey that assessed PA, F&V intake, likelihood of taking the campus shuttle and of using the elevator, frequency of breakfast and dessert consumption, and demographic characteristics. Students were classified by PA level (high, not high) and whether they meet the recommendation for F&V intake (yes, no). Analyses examined the association between having a meal plan and F&V intake, breakfast, and dessert consumption. Additional analyses determined the association between the likelihood of taking the elevator and campus shuttle and PA. Barriers to PA and healthful eating were also assessed.

Results: The sample (n=87) was primarily female (n=60, 69.8%) and 74.7% (n=65) of participants reported a high level of PA. The majority of students did not consume the recommended servings of F&V/day (69.0%, n=60). There was no support of a relationship between having a meal plan and F&V intake, frequency of consuming breakfast, or desserts. In addition, analyses determined that there was no association between likelihood of shuttle or elevator use and PA. Lack of time was the identified as the most significant barrier to both PA and healthful eating.

Conclusion: While most study respondents reported high levels of PA, future work may strive to ease the identified barriers to PA and continue to promote healthful exercise habits. Study results confirm that college students may benefit from interventions designed to increase F&V intake. Additional research is required to determine associations of selected aspects of the college environment with PA and F&V consumption.

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INTRODUCTION

Most are familiar with the simple recipe to healthy living: staying active and eating right. However, particularly for college students, who face a marked level of stress, mounting responsibilities, and a critical point in maturity, this is more often easier said than done. Over the past decade, a significant amount of research has been conducted to study the diet and exercise habits of college students at universities throughout the United States.¹⁻⁴ Previous studies have indicated that only 5.7% of college students consume 5 or more servings of fruit and vegetables (F&V) per day⁵ and 21.8% eat at least 3 high-fat foods daily.⁶ In addition, college students are underactive, as is reflected in data that indicates only 20% regularly partake in moderate physical activity (PA) and 30% in vigorous PA.^{5 and 7} These PA and dietary behaviors are reflected in students' day-to-day routine choices, from what they eat at campus dining facilities to the decision to take the elevator or the stairs, and whether they will ride the shuttle or walk to class.

For many students, the newfound freedom to initiate their own dietary choices can negatively impact the fulfillment of healthful dietary behaviors, including F&V consumption. Thus, this study aims to determine if there is an association between having a meal plan and meeting the daily-recommended intake of F&V, as specified by the CDC.⁷ Other aspects of diet are also examined, such as breakfast and dessert consumption. While dessert should be enjoyed in moderation, breakfast should be consumed on an everyday basis. Previous studies indicate that while they are aware of its importance, time constraints and food availability may prevent students from consuming breakfast.⁸ Breakfast is a key aspect to maintaining a healthful lifestyle due to its role in jumpstarting the body's metabolism and providing the long-lasting energy college students need to carry out the day.⁹

The purpose of this study is to assess the association between the behaviors and other influences of the college environment for an association with students' level of PA and F&V consumption. It is hypothesized that students who have lower levels of PA would be more likely to use the shuttle and elevator than those who have a high level of PA. Examining the association of having a meal plan with F&V, breakfast, and dessert consumption will provide insight on how selected aspects of students' dietary behaviors

are influenced by having a meal plan. Efforts to shape positive lifestyle practices are dependent on knowledge of how behavior is affected by the external environment, which this study aims to investigate.

METHODS

Study eligibility and recruitment

To be eligible to partake in the study, participants needed to be: 1) enrolled at the University of Rhode Island; 2) enrolled in Dr. Fournier's BIO 121 lecture; and 3) 18 years of age or older. Through a brief in-class presentation, students were informed of the study and recruited to participate in the voluntary study. Students who completed the survey received bonus points toward their final grade as an incentive to participate.

Data collection

Following the in-class presentation, students were sent a link to the online survey was through the university's Sakai website. Before completing the survey, interested students provided a signed informed consent via an electronic signature, and the study was approved by the University of Rhode Island Institutional Review Board (see Appendix B).

Measures

Socio-demographics

The survey assessed sex (male, female), race (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White), class rank (freshman, sophomore, junior, senior, 5th year student, 6th year student, other), meal plan (no meal plan, commuter meal plan, residential meal plan), and residential status (off-campus commuter, off-campus walker/biker, on-campus). Self-reported height and weight also were collected and used to calculate body mass index (BMI).

Physical activity

Students' physical activity was assessed using the short form of the International Physical Activity Questionnaire (IPAQ),¹⁰ which has demonstrated acceptable degrees

of reliability and validity.¹¹ The IPAQ has respondents report the average number of days and time spent walking, sitting, and engaging in vigorous and moderate physical activity in the last 7 days. From the responses, MET-minutes/week for each activity was calculated by multiplying days per week, duration in minutes, and the average MET score of each activity. The values used in the analysis of the IPAQ are 8.0, 4.0, and 3.3 METs for vigorous, moderate, and walking activity, respectively. For example, a student who performs vigorous exercise for 20 minutes on 3 days a week would yield a MET-minutes/week value for vigorous activity according to the following: 3 days/week * 20 minutes/day * 8.0 METs = 480 vigorous MET minutes/week. Total physical activity per week in MET-minutes/week is the summation of all three categories: sum of Walking + Moderate + Vigorous MET- minutes/week scores. All four of these values are used to determine the relative level of physical activity based on a scale of low, moderate, and high as dictated by the short form IPAQ scoring protocol.¹²

Elevator and shuttle use

The likelihood of elevator and shuttle use was assessed by means of a Likert scale. Students were asked how likely they are overall to take the elevator instead of the stairs (very unlikely, somewhat unlikely, neutral, somewhat likely, very likely), and in a separate survey item with identical response options, how likely they are overall to take the shuttle instead of walking/biking. The response options for likelihood of taking the shuttle and for taking the elevator were sorted into three categories of likely to take the shuttle, neutral, and unlikely to take the shuttle.

Barriers to physical activity

Students were asked to select factors that prevent them from being physically active in a check all that apply method. Students could pick as many as applied from a list that included the following reasons: too tired, no motivation, don't like to sweat or feel sore, stress, injury or other health condition, too lazy, lack of support from friends, lack of results, and intimidation or self consciousness.

Fruit and vegetable (F&V) intake

Fruit and vegetables consumption was assessed using the “5 A Day for Better Health” tool, a validated 7-item instrument covering different types of fruit and vegetable items consumed over the previous month.¹³ Total daily servings were calculated (excluding fried potatoes and French fries), with 5+ servings/day being the daily-recommended intake.¹⁴ Students were categorized as meeting or not meeting the requirements based on if they eat 5+ servings per day.

Frequency of breakfast and dessert consumption

Students were asked to report their the frequency of dessert consumption, and could choose from one of following response options: never, 1-3 times per month, 1-2 times per week, 3-4 times per week, 5-6 times per week, 1 time per day, or 2 or more times per day. For analyses, the frequencies were pooled into the following categories: 3 or fewer times per month, 1-2 times per week, 3-4 times per week, and 4 or more times per week. Breakfast was assessed in a similar fashion using the frequencies never, 1-3 times per month, 1-2 times per week, 3-4 times per week, 5-6 times per week, or every day.

Barriers to healthful eating

In a check all that apply fashion, barriers to healthful eating were evaluated in a similar manner as barriers to physical activity were assessed. Students were asked to identify all applicable barriers from a list that included the following: increased cost of eating healthy, it's easier to eat unhealthy, lack of desire to eat healthy, lack of time, not enough healthy options at dining halls, temptation of unhealthy foods at dining halls, stress, I don't know how to eat healthy, I don't like the taste of healthier food, peer pressure and negative influences, limited dining hall hours, or none of the above.

Analyses

A significance level of $p=0.05$ was set a priori and data were analyzed using SPSS software version 21.¹⁵ Descriptive statistics and frequencies were calculated for the key variables, including PA level, fulfillment of F&V recommendation, and breakfast

and dessert consumption. Chi-square tests were carried out to assess associations between categorical variables.

RESULTS

Characteristics of study participants

In total, 87 of 116 eligible students enrolled in the study (75%). The majority of study participants were female (n=60, 69.8%) and white (n=76, 87.4%), with more than half of the participants in their freshman year (n=49, 56.3%). Nearly two thirds (n=55, 63.2%) of participants had either a commuter or resident meal plan and a comparable percentage of the sample (n=53, 60.9%) lives on campus. Based on BMI, approximately one fifth (n=18, 20.7%) of students were overweight or obese. Approximately 25% (n=22) of students were classified as having low or moderate levels of PA. For analyses, these participants were re-categorized into the “not high” level of physical activity. See Table 1 for additional demographic information data as well as information about education level, residential information, meal plan type, and BMI. The majority of the sample was white (n=76, 87.4%) and due to the homogeneity of the sample and lack of significant difference in the parameters of interest among whites and non-whites, ethnicity was not taken into account in the analyses.

TABLE 1: Socio-Demographic Characteristics of Study Participants (n=87)

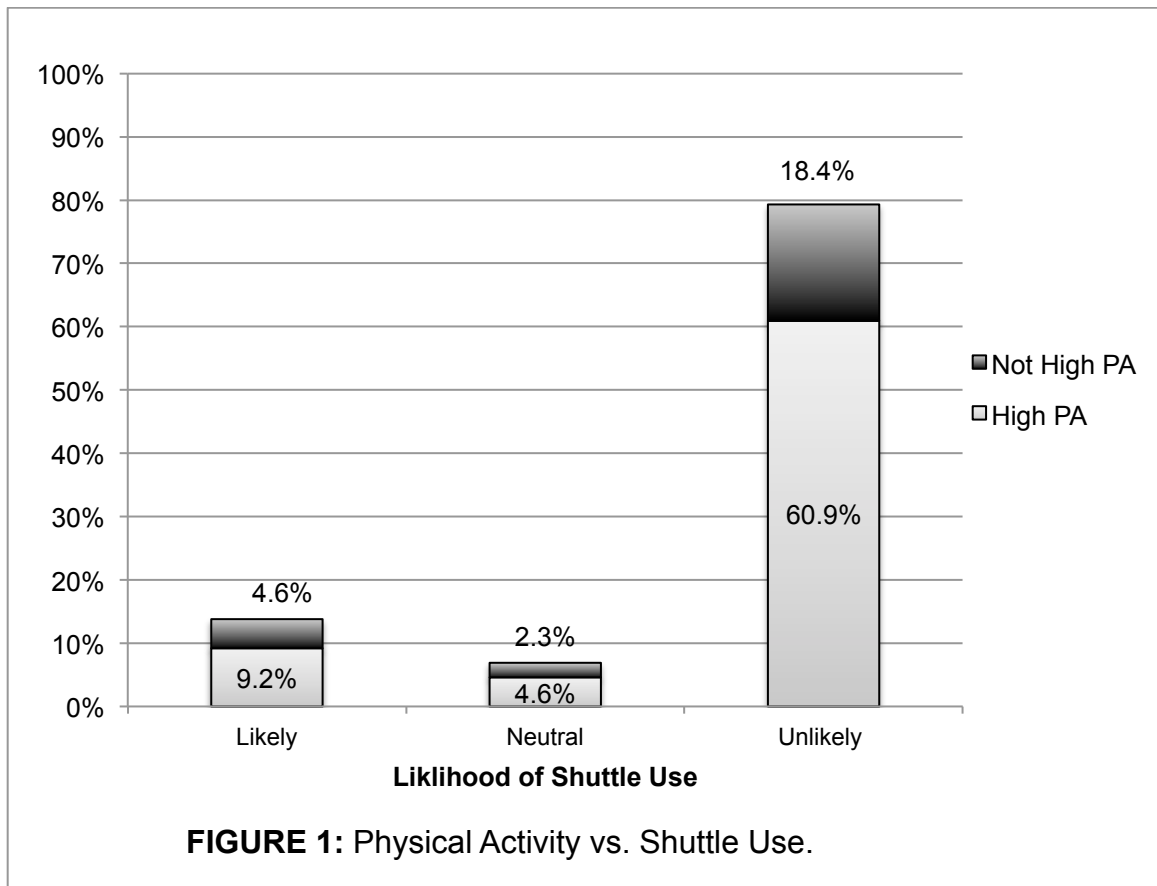
	<u>Percent</u>	<u>n</u>
Sex		
Male	30.2	26
Female	69.8	60
Ethnicity		
White	87.4	76
Other	12.6	11
Education Level		
Freshman	56.3	49
Sophomore	23.0	20
Junior	18.4	16
Senior	2.3	2
Place of Residence		
On-campus	60.0	53
Off-campus	40.0	34
Meal Plan		
Resident meal plan	54.0	47
Commuter meal plan	9.2	8
No meal plan	36.8	32
BMI		
Underweight (<18.5 kg/m ²)	9.2	8
Healthy (18.5-24.9 kg/m ²)	69.0	60
Overweight (25-29.9 kg/m ²)	13.8	12
Obese (≥ 30 kg/m ²)	6.9	6
Physical Activity		
High	74.7	65
Not high	25.3	22
Fruit and Vegetable Intake		
Does not meet recommendation	69.0	60
Meets recommendation	31.0	27

Physical activity

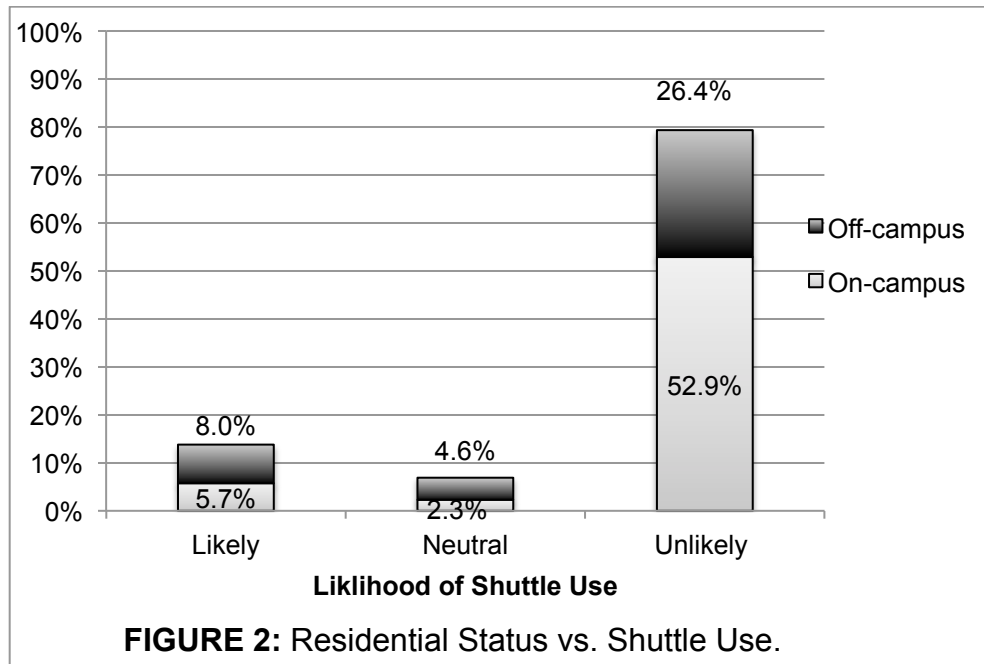
Association with likelihood of shuttle and elevator use

As a potential reflection of students' PA habits, the likelihood of taking the elevator and shuttle was assessed. It was hypothesized that students who are more likely to ride the shuttle or take the elevator would have lower levels of PA than those who are less likely to do so.

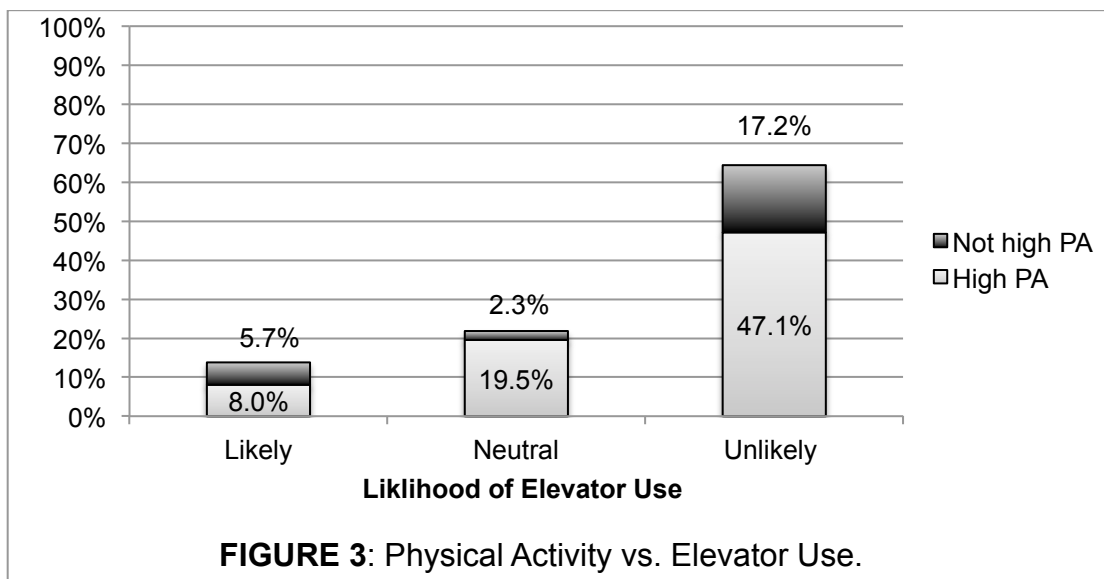
As seen in Figure 1, the majority of students reported that it was unlikely that they would take the shuttle. Results of the chi-square analyses determined that likelihood of taking the shuttle was not associated with students' PA level [$\chi^2(2)=0.778$, $p=0.678$].



For the association with residential status and shuttle use, it was hypothesized that students who live on campus may be less likely to take the shuttle than those who live off campus and have to park in a distant commuter lot. There was no also significant difference in the likelihood of shuttle use [$\chi^2(2)=7.743$, $p=0.093$] for both on- and off-campus residents.

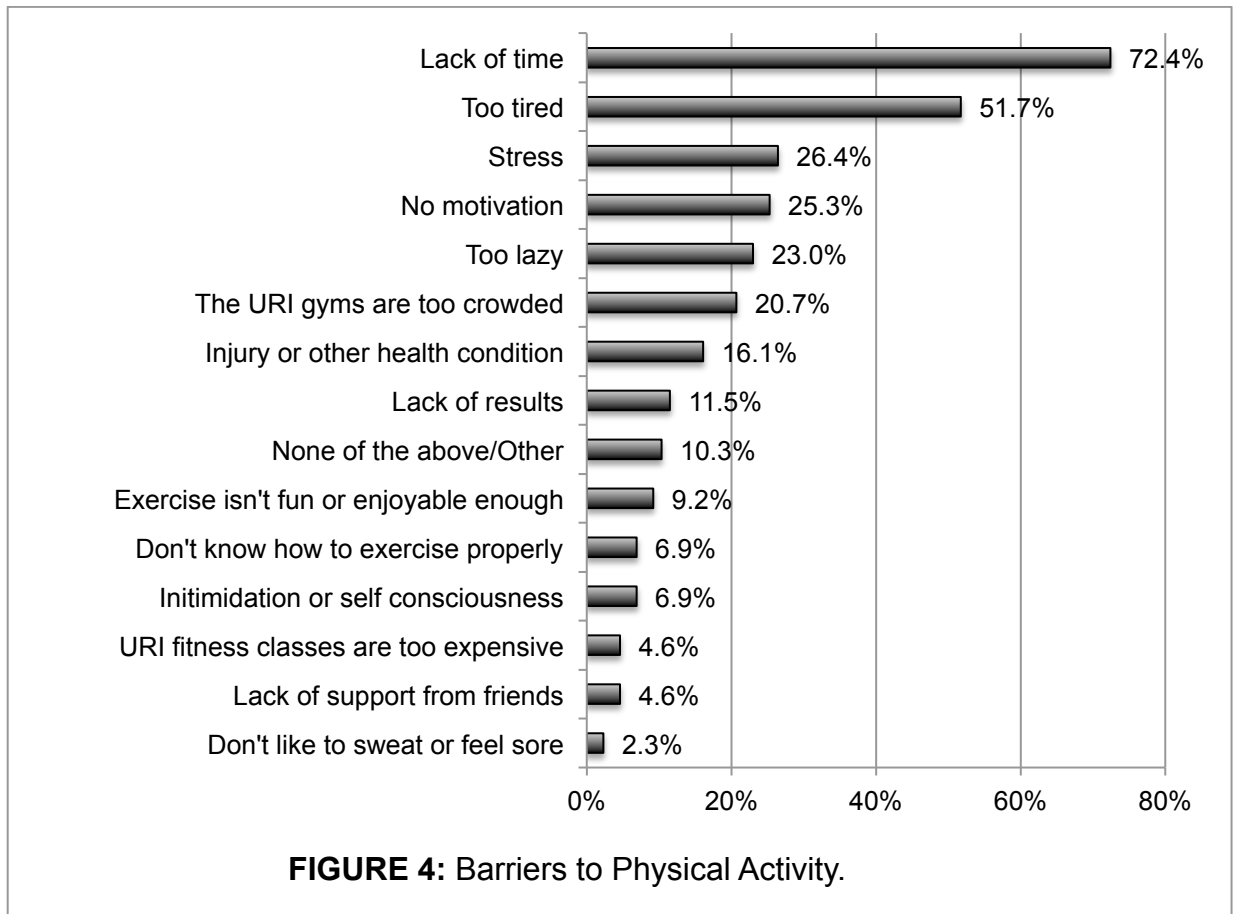


Similar analyses as those used to evaluate the likelihood of shuttle use were carried out to investigate the association between likelihood of taking the elevator and PA, for which there was no significant association [$\chi^2(2)=3.962$, $p=0.138$]. As depicted in Figure 3, most students reported being unlikely to take the elevator. In addition, more than half those who are likely to use the elevator have a high level of PA.



Barriers to PA

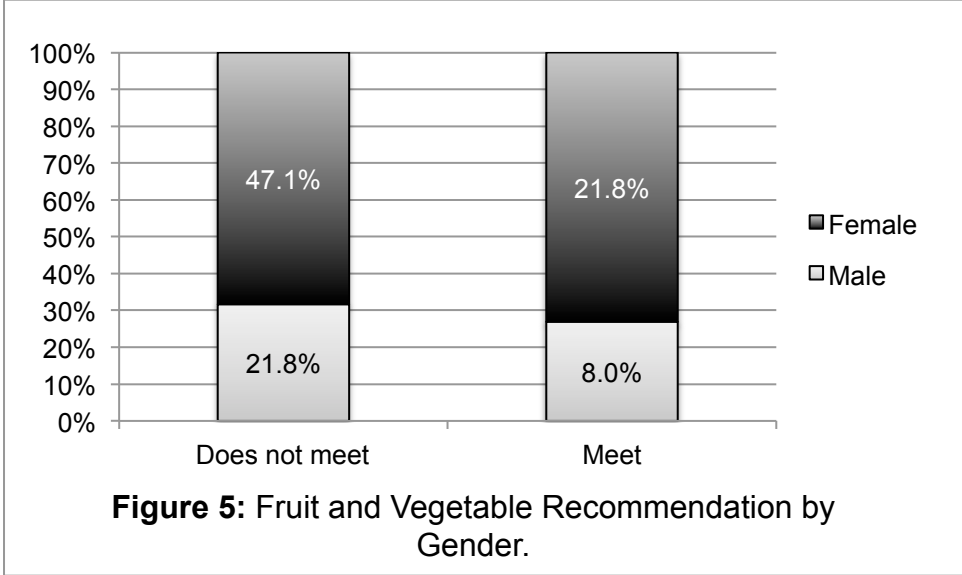
As seen in Figure 4, the most frequently identified barriers of physical activity were lack of time (n=63, 72.4%) and too tired (n=45, 51.7%). In addition, approximately one quarter of all students identified stress (n=23, 26.5%), no motivation (n=22, 25.3%), and too lazy as barriers (n=20, 23.0%), as well.



Dietary Habits

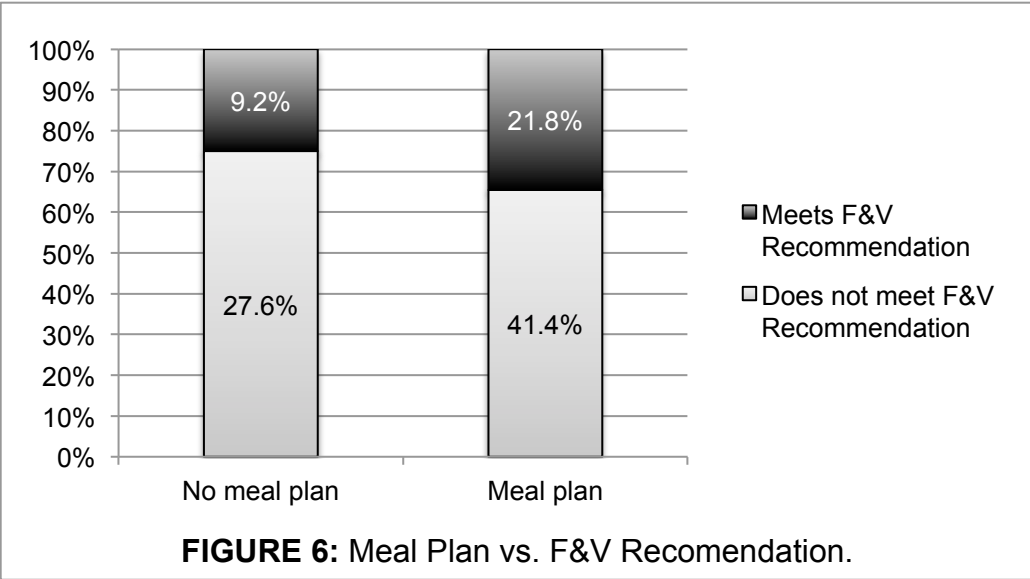
F&V consumption

Nearly three-quarters (n=60, 69.0%,) of participants did not consume the daily-recommended servings of F&V.¹³ There was no significant difference in F&V consumption by gender, with 73.1% of males and 68.3% of females failing to meet the daily-recommended servings [$\chi^2(1)=0.194$, $p=0.660$]. The ratios of male to female in both categories were similar, as depicted in Figure 5.

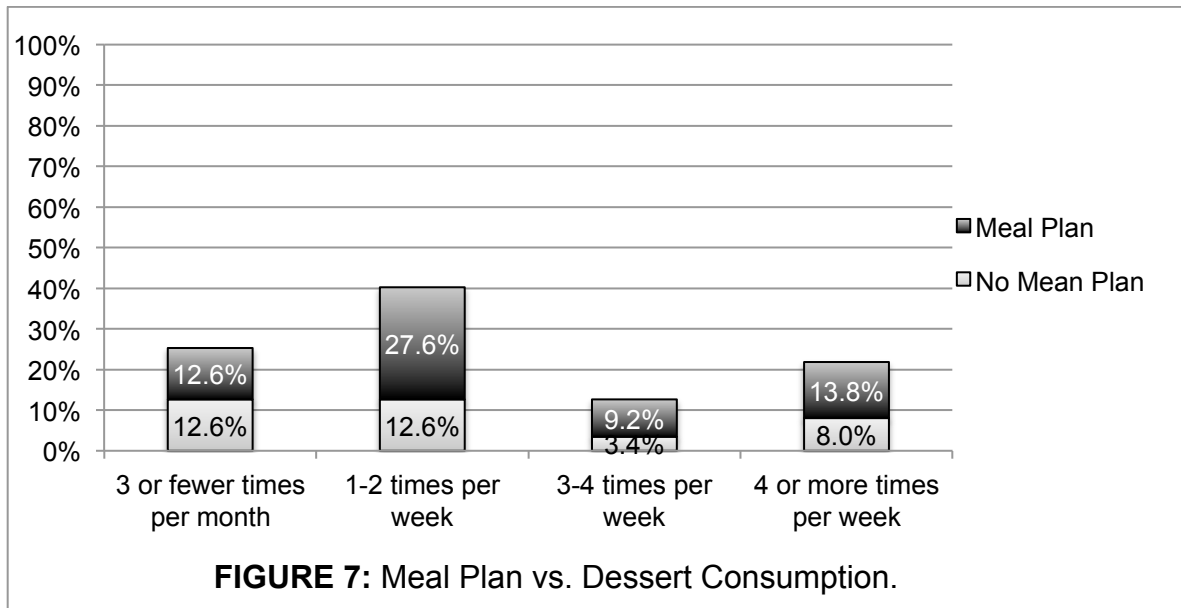


Association of meal plan with F&V, dessert, and breakfast consumption

A series of analyses were conducted to examine the association between type of meal plan (resident/commuter meal plan vs. no meal plan) and various dietary behaviors. Analyses determined that there was no association between having a meal plan and F&V consumption [$\chi^2(1)=0.861, p=0.353$]. Figure 6 shows approximately equal ratios among students with and without meal plans.



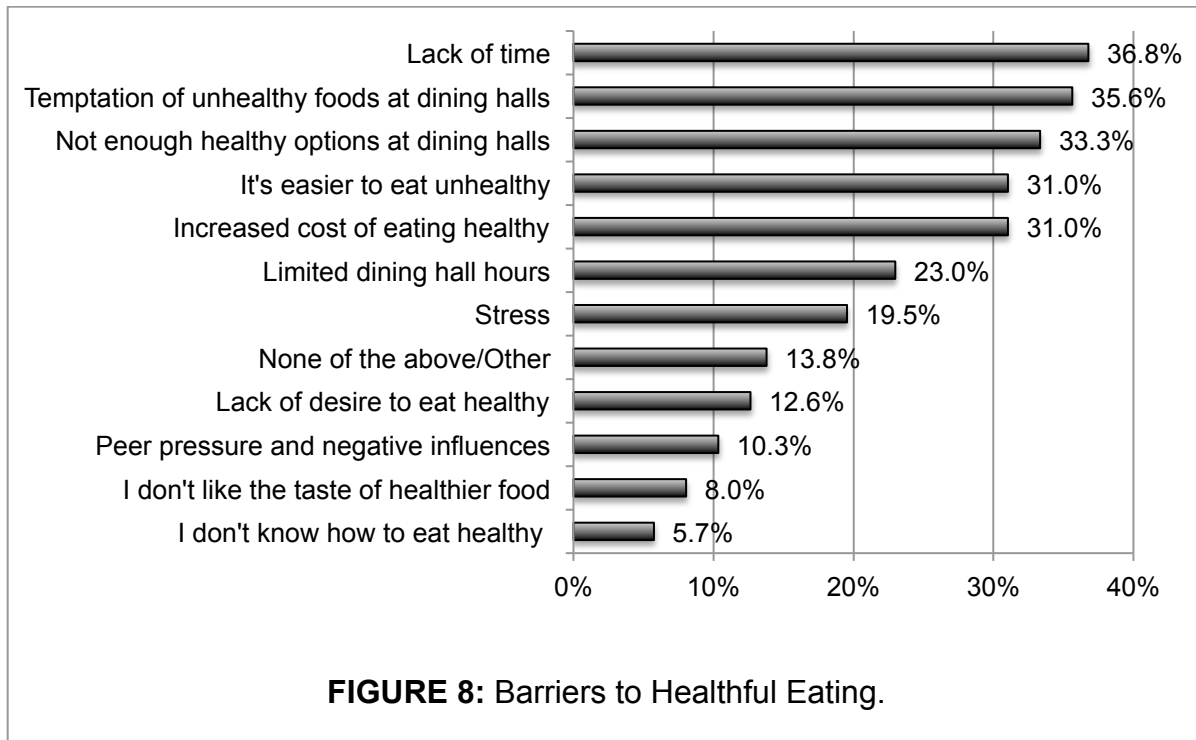
The association between having a meal plan and how often students consume dessert was also assessed, and as shown in Figure 7, most students eat dessert 1-2 times per week (n=35, 40.2%). A chi-square value of 2.512 was observed (df=3 p=0.473), which is not significant and the association between having a URI dining hall meal plan and dessert consumption was not determined.



Students with either type of meal plan (n=55) eat breakfast on 4.7 (SD=1.4) days per week, on average. The 31 students without meal plans eat breakfast on an average of 4.7 days/week, (SD=1.6). There was no association between meal plan and frequency of breakfast consumption. There was no significant difference between genders in this parameter.

Barriers to healthful eating

Students identified lack of time as the most common deterrent, with 36.8% (n=32) of participants reporting this as a barrier to healthful eating. Students also reported temptation of unhealthy foods at dining halls (n=31, 35.6%), not enough healthy options at dining halls (n=29, 33.3%), and it's easier to eat unhealthy (n=27, 31.0%) as significant barriers to eating a healthful diet.



DISCUSSION

The purpose of this study was to examine the relationship between selected aspects of college students' environment and their health behavior. The current study found that most participants have high levels of PA, while a previous study also based on self-reported measures reports that college students engage in low levels of physical activity.² This difference may be due to a small or non-representative sample, as well as response bias.

The study results also indicate that there is no significant association with the likelihood of elevators or shuttle use and PA, contrary to what was hypothesized. It cannot be concluded that students who perform high levels of PA are less likely to take the shuttle or elevator, or the contrary. Study limitations include sample size and because students were recruited from a single introductory anatomy class, the sample may be more active than the general college populations. For example, students taking an anatomy course may have more health-based knowledge and may be more physically active than the general college population, as indicated by a study reporting higher levels of PA among health-related majors.¹⁶ This may have led to the unexpected

result that most students in the sample engage in high levels of PA, contrary to what has been ascertained in a number of previous studies.

As mentioned, one of the most frequently identified barriers of physical activity was reported to be “too tired,” and 72.4% (n=63) of participants also identified “lack of time” as a significant constraint. Other studies have found similar results.^{17 and 18} Future work may be oriented towards informing students of ways to find time for exercise on a tight schedule and promoting small changes to maintain an active lifestyle.

The high percentage of students who do not meet the recommended servings of fruit and vegetables coincides with research that has been previously conducted throughout the United States. A national study of college students concluded that only 5.7% of students consume five or more servings of F&V. In this study, only 31.0% (n=27) of participants ate the recommended daily servings. There was no association between this parameter of interest and what type of meal plan students have. In addition, no significant relationship was concluded to exist between having a meal plan and the frequency of breakfast or dessert consumption. This coincides with previous studies that also indicate meal plan does not have a significant influence on dietary choices and nutrient intake.¹⁹⁻²¹

The barriers students identified as deterrents to healthy eating can be used to stage interventions and promote healthier eating decisions. A significant number of participants selected temptation of unhealthy foods and the fact that it's easier to eat unhealthy at dining halls as contributions to poor diet choices. Individuals looking to design environment-based interventions may draw on this finding to encourage healthier food choices in dining halls.

The strengths of this study include providing data on the health behaviors of a sample of URI students, which can be used to reflect the habits of college-aged individuals. In addition, this study emphasizes the need for large, representative sample sizes in the study of such a broad population.

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APPENDIX A – Survey instrument

"Think Big, Start Small" Physical Activity and Nutrition Survey

Physical Activity

These questions will ask you about the time you spent being physically active in the last

7 days. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your living and house work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the vigorous activities that you did in the last 7 days. Vigorous physical activities refer to activities that take hard physical effort, cause you to sweat, and make you breathe much harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

Q1a: During the last 7 days, on how many days did you do vigorous physical activities?

Vigorous physical activity includes heavy lifting, digging, aerobics, basketball, soccer, swimming laps, running, or fast bicycling.

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Q1b: How much time did you usually spend doing vigorous physical activities on one of those days?

: :

Think about all the moderate activities that you did in the last 7 days. Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

Q2a: During the last 7 days, on how many days did you do moderate physical activities?

Moderate physical activity includes carrying light loads, bicycling at a regular pace, or doubles tennis. Do not include walking.

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Q2b: How much time did you usually spend doing moderate physical activities on one of those days?

Hrs : Mins : Secs

Think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise, or leisure.

Q3a: During the last 7 days, on how many days did you walk for at least 10 minutes at a time?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Q3b: How much time did you usually spend walking on one of those days?

This question is about the time you spent sitting on weekdays during the last 7 days. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying

down to watch television.

Hrs : Mins : Secs

Q4: During the last 7 days, how much time did you spend sitting on a weekday?

Hrs : Mins : Secs

Q5: On how many of the past 7 days did you do exercises to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Q6: Overall, how likely are you to take the elevator instead of the stairs?

- 1=Very likely
- 2=Somewhat likely
- 3=Neutral
- 4=Somewhat unlikely
- 5=Very unlikely

Q7: Overall, how likely are you to take the shuttle instead of walking/biking?

Think about how you get around campus as well as to and from class.

- 1=Very likely
- 2=Somewhat likely
- 3=Neutral
- 4=Somewhat unlikely
- 5=Very unlikely

Q8: Which of the following prevent you from being active?

Select all that apply.

- Lack of time
- The URI gyms are too crowded
- Too tired
- No motivation
- Don't like to sweat or feel sore
- Stress
- Injury or other health condition
- Too lazy
- Lack of support from friends
- Lack of results
- Intimidation or self consciousness
- Don't know how to exercise properly
- Exercise isn't fun or enjoyable enough
- URI fitness classes are too expensive
- None of the above
- Other:

Nutrition

The nutritional habits of URI students are also being studied in this research survey. Please think about all the foods you consumed over the past month, including those that were raw and cooked, eaten as snacks and at meals, eaten at home and away from home, and eaten alone and mixed with other foods.

Q9: Think about the last 4 weeks and please mark how often, if ever, you ate the following foods.

	Never	1-3 per month	1-2 times per week	3-4 times per week	5-6 times per week	1 time per day	2 times per day	3 times per day	4 times per day	5 times per day
100% orange juice or grape fruit juice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other 100% fruit juices, not counting juice drinks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit, not counting juices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Green salad, with or without other vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
French fries or fried potatoes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Baked, boiled, or mashed potatoes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vegetables, not counting salad or potatoes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10: On average, how often do you consume dessert foods such as cake, ice cream, cookies, candy, chocolate, or brownies?

- Never
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- 5-6 times per week
- 1 time per day
- 2 or more times per day

Q11: During the past month, how often did you eat breakfast?

- Never
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- 5-6 times per week
- Every day

Q12: Which of the following prevent you from eating healthy?

Check all that apply.

- Increased cost of eating healthy
- It's easier to eat unhealthy
- Lack of desire to eat healthy
- Lack of time
- Not enough healthy options at dining halls
- Temptation of unhealthy foods at dining halls
- Stress
- I don't know how to eat healthy
- I don't like the taste of healthier food
- Peer pressure and negative influences
- Limited dining hall hours
- None of the above
- Other:

Q13: I have a strong desire to live a more healthy lifestyle.

- 1=Very true
- 2=Mostly true
- 3=Somewhat true
- 4=Mostly not true
- 5=Not true at all

Q14: I find it difficult to make healthy dietary choices at the URI dining halls.

- 1=Very true
- 2=Mostly true
- 3=Somewhat true
- 4=Mostly not true
- 5=Not true at all
- Not Applicable

Q15: I do not exercise as often as I used to since starting college.

- 1=Very true
- 2=Mostly true
- 3=Somewhat true
- 4=Mostly not true
- 5=Not true at all

Q16: As a college student, I do not eat as healthy as I used to.

- 1=Very true
- 2=Mostly true
- 3=Somewhat true
- 4=Mostly not true
- 5=Not true at all

Q17: On an average night, how many hours do you sleep?

- 4 or less
- 5
- 6
- 7
- 8
- 9
- 10 or more

Demographic Information

Q18: Gender

- Male
- Female

Q19: Are you Hispanic or Latino?

Q20: Please select the racial category with which you most closely identify.

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White

Q21: Weight

pounds

Q22a: Height (feet)

Q22b: Height (inches)

Q23: Please select which best describes where you live.

- I live on campus
- I live off campus and commute to class
- I live off campus and walk/bike to class

Q24: Please select which closely applies to you.

Q25: Please select your current education level.

- Freshman
- Sophomore
- Junior
- Senior
- 5th year student
- 6th year student
- Other:

APPENDIX B – Informed consent document

The University of Rhode Island Department of Human Science and Services

106 Quinn Hall, Kingston, RI 02881

Think Big, Start Small: Studying and Promoting Nutrition and Exercise Wellness at the University of Rhode Island

You have been invited to take part in the research project described below. The following will explain the project to you in detail. You should feel free to ask questions. If you have any questions, you may contact Mary Greaney, the person mainly responsible for this study, at mgreaney@mail.uri.edu or (401) 874-7499.

You must be at least 18 years old to participate in this research project. If you decide to take part in this voluntary study, you will be asked to complete a short 10-15 minute survey pertaining to physical activity and nutrition. You will be asked for the frequency and duration of various forms of exercise, as well as your consumption of fruit, vegetables, breakfast, and dessert. This survey will also investigate the deterrents of attaining a healthy diet and level of physical activity, and will attempt to determine what promotes a healthy lifestyle in college students. You will be asked to identify possible factors that encourage and prevent you from staying active and fulfilling a healthy diet. Basic demographic data will be asked, including questions regarding your beliefs and attitudes associated with physical activity and nutrition. In order to determine body mass index, you will also be asked to report your height and weight.

This survey is being conducted to collect information on nutrition and physical activity of URI students. Responses to these items will be used to determine the shortcomings in diet and exercise habits of students for a future project aimed to foster positive wellness on campus. The information collected will be published in a final report and will not reveal your personal information.

There are no risks or benefits associated with participating in this research study, although some health questions may cause embarrassment or discomfort. If you are uncomfortable answering any survey items, you may leave them blank. Although there will be no direct benefit to you for taking part in this study, the researcher may learn more about the nutrition and physical activity of URI students and may identify factors

contributing to decreased exercise and poor diet in college students. Therefore, your participation in this study will help to shape positive health behavior on campus. As a recruitment incentive, you will receive bonus points from your professor for participating in this study. You will earn 0.5% toward your final grade for your participation.

The data you provide in this study is confidential. None of the information will identify you by name. All records will be maintained with the utmost level of privacy and will not be dispersed. They will be retained electronically and will be secured on a password protected computer. The data will be used solely for the purpose of gaining knowledge and will not be revealed to others.

The decision to take part in this study is up to you. You do not have to participate. If you decide to take part in the study, you may quit at any time. If you wish to quit, simply inform Mary Greaney of your decision. If you are not satisfied with the way this study is performed, you may discuss your complaints with Mary Greaney or with Kaitlyn Krajanowski {401-636-1686}, anonymously, if you choose. In addition, if you have questions about your rights as a research participant, you may contact the office of the Vice President for Research, 70 Lower College Road, Suite 2, University of Rhode Island, Kingston, Rhode Island, telephone: (401) 874-4328.

By signing this consent form you are indicating that you have read and understand the consent form. Your questions have been answered. Your signature on this form means that you understand the information and you agree to participate in this study.

You may wish to print a copy of this consent form for your personal records.

Electronic Signature: *

Please type your first and last name in the space below.

Today's Date: *

Month ▾	Day ▾	2014 ▾	31
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