Wellness Assessment: Physical Wellness

Center for the Study of Student Life

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INTRODUCTION

Student wellness is an essential component of academic success in higher education and subsequent opportunities in the labor market. The Ohio State University Office of Student Life's Student Wellness Center uses a model that includes nine key dimensions of wellness: career, creative, emotional, environmental, financial, intellectual, physical, social and spiritual.

The Wellness Assessment survey was developed and distributed to all students on the Columbus campus of The Ohio State University in October 2014. The Wellness Assessment was designed to measure nine dimensions of wellness in order to give students a better understanding of their own wellness and provide them with resources that they can utilize to improve their wellness. The survey instrument was distributed via an open link to undergraduate and graduate students. This report examines demographic variations in physical wellness, as well as the relationship of physical wellness to other dimensions of wellness.

INSTRUMENT

The Wellness Assessment is informed by past surveys at Ohio State as well as research in the field of college student wellness. The survey was developed using extant literature and feedback from stakeholders on campus, including faculty, staff, and students. In 2011, the Wellness Inventory was administered to incoming first-year students as the first part of a longitudinal study of college student wellness. Prior to this administration, students participated in cognitive interviews to ensure items and response options would provide valid measures. In addition, factor analysis was conducted with the 2011 data to determine if the nine dimensions of wellness were being measured. The Wellness Assessment is based on the previous Wellness Inventory and was updated based on the results of the Wellness Inventory and feedback from the stakeholders.

METHODOLOGY

Each of the nine dimensions of student wellness acted as a scale within the survey, containing items designed to measure a range of attitudes and behaviors related to that dimension. Scores were calculated by adding the values of each component within a given dimension, then dividing by the total number of components, which produced an average wellness score for each dimension. The scores for respondents who did not answer all of the components of a dimension were calculated by summing the scores for the answered items and dividing by the total number of items answered. Students who failed to provide several responses for a dimension were excluded from the analysis, since creating wellness scores based on too few elements would lack validity and misrepresent the overall dimension.

Questions within the survey asked students to indicate their agreement on Likert scales. When asked about behaviors, students reported the frequency of the occurrence. A 5-point scale was used for all of the wellness dimensions. Higher scores indicated more positive attitudes and behaviors. Negative statements or questions were reverse coded so that unhealthy responses did not receive a high score. The findings presented below are independent samples t-tests of differences in average wellness scores by student demographic characteristics, as well as chi-squared tests for differences in item cross-tabs by demographics. Analyses were limited to comparisons where each category contained 20 or more students; student samples with fewer than 20 respondents would be too susceptible to extreme scores.



DEMOGRAPHICS

	All Respondents	Undergraduate Respondents	Graduate Respondents
Male	30.4%	32.3%	22.6%
Female	69.0%	67.0%	77.4%
First generation	23.9%	23.2%	26.9%
Non-first generation	76.1%	76.8%	73.1%
International	4.5%	1.9%	15.4%
Domestic	95.5%	98.1%	84.6%
Race/Ethnicity			
African American/Black or African descent	4.4%	4.2%	5.1%
Asian American/Asian (East, South, Southeast)	9.5%	9.6%	9.1%
Hawaiian/Pacific Islander			
Latino(a)/Hispanic American	2.4%	2.3%	2.8%
Native American/American Indian/Alaskan Native	0.2%	0.3%	
Middle Eastern/Arab American	0.4%	0.4%	0.6%
White/European American	72.4%	72.4%	72.2%
Other	0.3%	0.1%	1.1%
Multiracial	7.7%	8.2%	5.7%
Prefer not to answer	2.6%	2.4%	3.4%
Sorority or fraternity member	10.0%	9.9%	10.3%
Student unaffiliated with sorority or fraternity	90.0%	90.1%	89.7%
Athlete	2.0%	1.9%	2.3%
Non-athlete	98.0%	98.1%	97.7%
Veteran	1.3%	1.5%	0.6%
Non-veteran	98.7%	98.5%	99.4%
Class rank			
First-year	23.8%	29.5%	
Second-year	17.1%	21.2%	
Third-year	18.4%	22.8%	
Fourth-year	17.2%	21.3%	
Fifth + year	4.2%	5.2%	
Master's	8.3%		42.9%
Professional	2.5%		13.0%
Doctoral	8.5%		44.1%
Does not work	36.5%	39.2%	24.7%
Works fewer than 20 hours	42.7%	46.6%	25.9%
Works 20 hours or more	20.8%	14.2%	49.4%
Residence			
Campus residence	39.8%	47.0%	9.7%
Within 43201 zip code	30.7%	34.4%	15.4%
Outside 43201 zip code	24.4%	14.1%	67.4%
Sorority or fraternity house	1.5%	1.6%	1.1%

^{*}p<.05, ** p<.01, ***p<.001



DIMENSIONS OF THE WELLNESS ASSESSMENT

EMOTIONAL

- I use alcohol/nicotine/other substances to manage stress.
- I am able to appropriately manage my feelings.
- I use relaxation techniques to manage stress.
- I am able to appropriately express my feelings.
- I would be willing to seek help from others when I am having a difficult time.
- I feel that I am able to cope with my daily stress.
- I have a positive image of my body.

CREATIVE

- I express myself through creative activities.
- I attend arts-related events or programs.
- I think of myself as a creative person.
- I value multiple perspectives when thinking about complex topics.
- The arts help me appreciate other perspectives and cultures.

SPIRITUAL

- I consider myself to be a spiritual person.
- I engage in self-reflection.
- I engage in spiritual practices.
- I feel a connection to something larger than myself.
- I seek out meaning in my life.

INTELLECTUAL

- I am able to resolve conflicts peacefully.
- I am confident about my academic maior decisions.
- I am confident in my ability to find solutions to my problems.
- I am confident that I can learn new skills.
- I am interested in learning new things.
- I engage in intellectually engaging activities.
- I feel that my education is a priority.
- I felt challenged by my academics during my most recent academic term.
- I was able to manage my academic workload during my most recent academic term.

CAREER

- I am confident about my career decisions.
- I envision my future career as a means to contribute to society.
- I feel that my current studies will be helpful to my future career.
- I feel that my major/career decision is an appropriate expression of my abilities and personal strengths.
- I feel that I work in a positive environment.
- I feel that I work in a stressful environment.
- I feel that my current job interferes with other aspects of my life.
- I am able to balance my current job with the rest of my life.

PHYSICAL

- I am confident that I can exercise regularly.
- I am confident that I can maintain a nutritious diet.
- I use illicit drugs (e.g. marijuana, cocaine, ecstasy).
- I use tobacco products.
- I use prescription medication that is not prescribed to me (e.g. Adderall, Xanax, Valium).
- I eat a nutritious diet.
- I engage in cardiovascular exercise 3-5 times per week for at least 30 minutes.
- I engage in flexibility exercise/ stretching.
- I engage in strength training/ resistance exercise 2-3 times per week.
- I get at least 8 hours of sleep per night.
- Do you get an annual flu vaccine?
- Do you maintain annual physical exam(s)?
- How often do you binge drink? (Males: 5+ drinks in about 2 hours, Females: 4+ drinks in about 2 hours)
- How often, in general, do you consume alcohol?

FINANCIAL

- I am comfortable leaving a balance on my credit card(s).
- I think it is important to spend less than I earn.
- I am confident that I can plan a financial budget.
- I pay off the entire balance of my credit card(s) each month.
- I have enough money saved to handle financial emergencies.
- I track my spending to stay within my budget.
- I feel stressed by the amount of money I owe (credit cards, student loans, etc.).
- I stress about my finances.

ENVIRONMENTAL

- I engage in environmentally friendly behaviors (turn off lights/faucets, walk or bike).
- I feel safe in my living environment.
- I feel that I live in a stressful environment.
- I often feel that I have little control over my safety.
- I take time to appreciate my surroundings.
- I take time to appreciate nature.
- I think it is important to conserve natural resources.
- If given the opportunity, I recycle.

SOCIAL

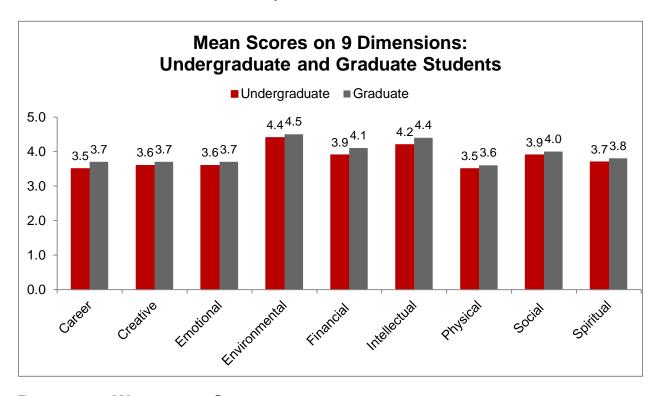
- I feel a sense of belonging in a community.
- I feel supported by my family.
- I feel that I am a person who other people like to be around.
- I have a strong social network.
- I have at least one close friend whom I trust and can confide in.
- I feel comfortable communicating face-to-face with others.
- I rarely feel lonely.



FINDINGS

MEAN WELLNESS SCORES

Below are the overall wellness scores by dimension.



BIVARIATE WELLNESS CORRELATIONS

The tables below present bivariate correlations of the wellness dimensions which examine the relationships between the dimensions of wellness. Generally, correlations of 0.4 and higher are considered moderate to strong. Physical Wellness correlates most strongly with Emotional Wellness followed by Environmental, and Intellectual Wellness.

Bivariate correlation matrix of wellness dimensions- All Respondents									
	Career	Creative	Emotional	Environmental	Financial	Intellectual	Physical	Social	Spiritual
Career	1.000								
Creative	0.090	1.000							
Emotional	0.229	0.154	1.000						
Environmental	0.191	0.254	0.367	1.000					
Financial	0.188	0.022	0.309	0.257	1.000				
Intellectual	0.359	0.200	0.478	0.399	0.259	1.000			
Physical	0.041	0.146	0.345	0.318	0.280	0.313	1.000		
Social	0.274	0.135	0.533	0.291	0.279	0.462	0.204	1.000	
Spiritual	0.136	0.307	0.231	0.285	0.122	0.209	0.209	0.214	1.000



PHYSICAL WELLNESS SCORES BY DEMOGRAPHICS

The table below presents demographic comparisons of the Physical Wellness scores. Undergraduate and graduate students were examined separately. Several comparisons among undergraduates were statistically significant, while none were significant among graduate students.

	Undergraduate Scores	Statistically Significant	Graduate Scores	Statistically Significant
Male	3.49		3.57	
Female	3.47		3.56	
First generation	3.45		3.50	
Non-first generation	3.48		3.59	
International	3.43		3.57	
Domestic	3.47		3.56	
Race/Ethnicity		**		
White	3.50	**	3.56	
Black	3.12	**	3.70	
Asian	3.53	**	3.46	
Hispanic	3.28	**	3.76	
Multiracial	3.45	**	3.32	
Sorority or fraternity member	3.39			
Student unaffiliated with sorority or fraternity	3.48			
Class rank		**		
First-year	3.55	**		
Second-year	3.56	**		
Third-year	3.39	**		
Fourth-year	3.39	**		
Fifth + year	3.57	**		
Master's			3.57	
Professional			3.41	
Doctoral			3.60	
Does not work	3.55	*	3.46	
Works fewer than 20 hours	3.44	*	3.66	
Works 20 hours or more	3.41	*	3.56	
Residence				
Campus residence	3.49			
Within 43201 zip code	3.46		3.59	
Outside 43201 zip code	3.45		3.55	



PHYSICAL WELLNESS ITEMS BY DEMOGRAPHICS

Comparisons of Undergraduate and Graduate Students

The table below presents undergraduate and graduate responses to each of the physical wellness items, and indicates whether differences between these students were statistically significant.

	Undergraduate Students	Graduate Students	Statistically Significant
I am confident that I can exercise regularly			·
Strongly Disagree/Disagree	19.2%	24.3%	
Neither Agree nor Disagree	10.7%	9.6%	
Strongly Agree/Agree	70.1%	66.1%	
I am confident that I can maintain a nutritious diet			
Strongly Disagree/Disagree	18.3%	15.9%	
Neither Agree nor Disagree	14.3%	9.7%	
Strongly Agree/Agree	67.4%	74.4%	
I engage in cardiovascular exercise 3-5 times per week for at least 30 minutes	,		
Never/Rarely	35.4%	32.0%	
Sometimes	24.5%	29.1%	
Often/Always	40.1%	38.9%	
I engage in strength training/resistance exercise 2-3 times per week			
Never/Rarely	52.3%	50.9%	
Sometimes	18.0%	23.1%	
Often/Always	29.7%	26.0%	
I engage in flexibility exercise/stretching			*
Never/Rarely	39.9%	30.3%	
Sometimes	30.1%	38.9%	
Often/Always	30.0%	30.9%	
I eat a nutritious diet			
Never/Rarely	8.3%	5.2%	
Sometimes	35.4%	29.9%	
Often/Always	56.3%	64.9%	
I get at least 8 hours of sleep per night			*
Never/Rarely	37.1%	30.3%	
Sometimes	33.2%	29.1%	
Often/Always	29.8%	40.6%	
If you are sexually active, do you practice safer sex?			**
Never/Rarely	2.3%	2.8%	
Sometimes	3.9%	4.5%	
Often/Always	48.3%	63.1%	
I'm not sexually active	40.7%	22.7%	
Prefer not to answer	4.8%	6.8%	



	Undergraduate Students	Graduate Students	Statistically Significant
I use illicit drugs (e.g., marijuana, cocaine, Ecstasy)			**
Never/Rarely	91.6%	98.3%	
Sometimes	5.7%	0.6%	
Often/Always	2.7%	1.1%	
I use prescription medication that is not prescribed to me (e.g., Adderall, Xanax, Valium)			
Never/Rarely	98.1%	99.4%	
Sometimes	1.0%	0.6%	
Often/Always	1.0%	0.0%	
I use tobacco products			
Never/Rarely	93.6%	97.7%	
Sometimes	4.2%	1.7%	
Often/Always	2.2%	0.6%	
How often, in general, do you consume alcohol?			**
Never	28.9%	18.8%	
Once a month	18.9%	17.0%	
Every other week	19.3%	21.6%	
Once a week	18.5%	23.3%	
More than once a week	14.4%	19.3%	
How often do you binge drink? (males: 5+ drinks in about 2 hours, Females: 4+ drinks in about 2 hours)	2		***
Never	56.1%	68.4%	
Once a month	16.1%	23.6%	
Every other week	11.6%	4.0%	
Once a week	11.7%	2.9%	
More than once a week	4.5%	1.1%	

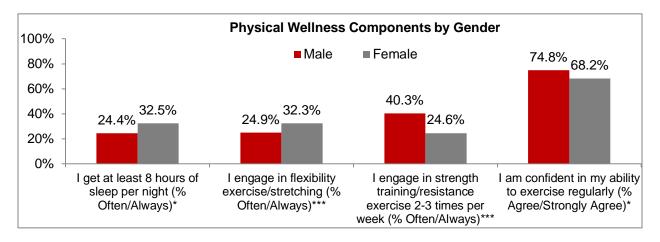


Undergraduate Student Demographic Comparisons

Demographic comparisons were examined for undergraduate respondents; only statistically significant findings are presented.

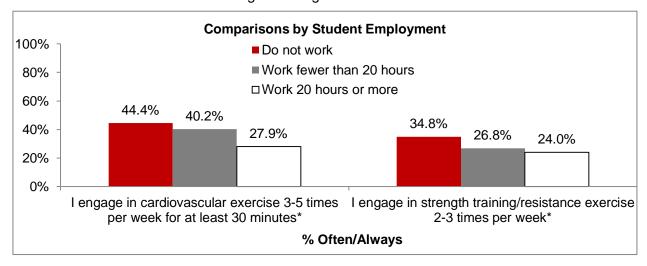
Gender Differences in Physical Wellness – Undergraduate Students

The following chart presents significant comparisons by gender. In addition to these findings, females are more likely than males to report that they never or rarely use tobacco products or illicit drugs.



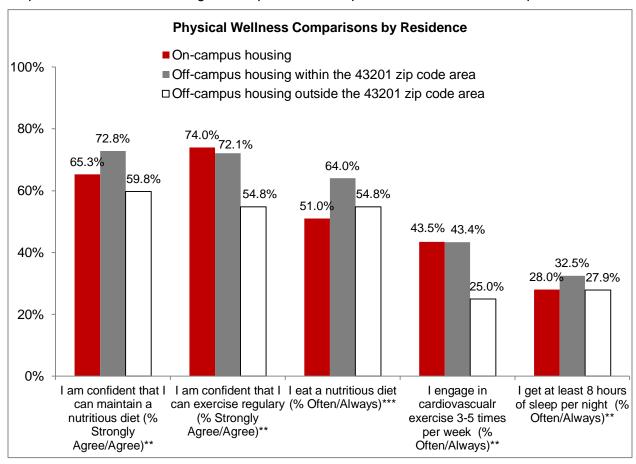
Demographic Differences in Diet, Exercise, and Sleep – Undergraduate Students

Students who do not work are significantly more likely to report that they often or always engage in cardiovascular exercise and strength training/resistance exercise.

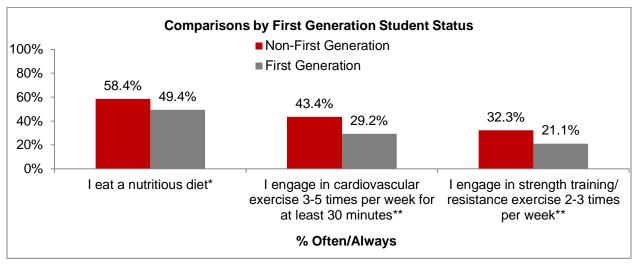




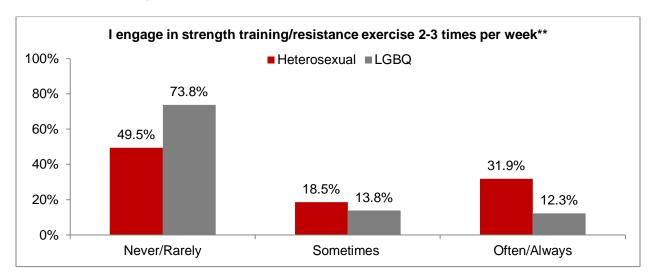
The chart below presents statistically significant differences in physical wellness by residence, with students living off-campus within the 43201 zip code generally reporting more positive responses than students living on campus or off-campus outside of the 43201 zip code.



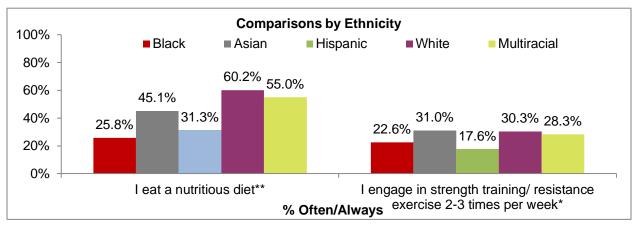
First generation students are less likely to report that they eat a nutritious diet, engage in cardiovascular exercise, and engage in strength training than non-first generation students.

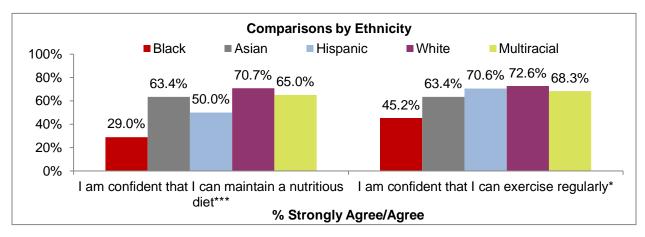


Students who identify as lesbian, gay, bisexual, or queer (LGBQ) are significantly less likely to report that they often or always engage in strength training/resistance exercise compared to students who identify as heterosexual.



The following two charts display how responses to diet and exercise items vary by race/ethnicity.

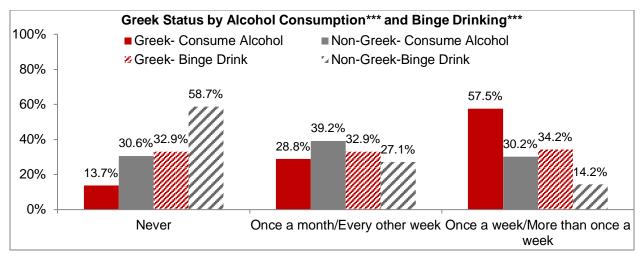




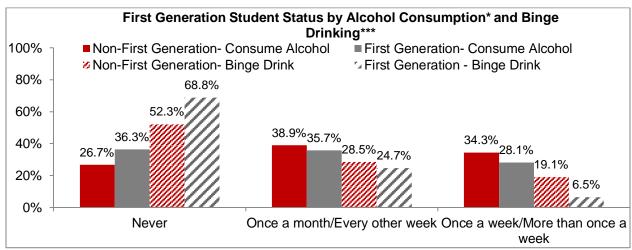


Demographic Differences in Alcohol Use – Undergraduate Students

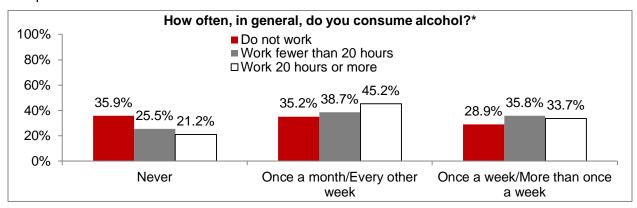
As shown in the chart below, compared to students who are unaffiliated with a social fraternity or sorority, more Greek students report drinking and binge drinking. Binge drinking is defined as five or more drinks in about 2 hours for males and four or more drinks in two hours for females.

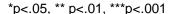


First generation students are less likely to report drinking and binge drinking than non-first generation students.

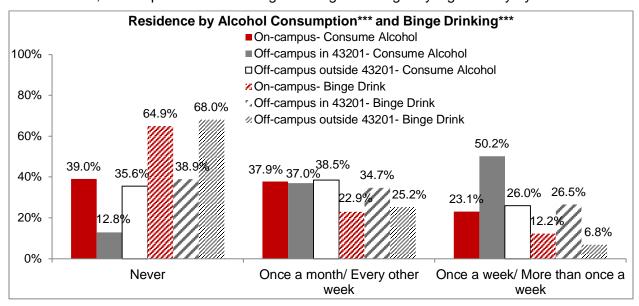


Students who do not work are less likely to drink alcohol once a week or more than once a week compared to students who do work.

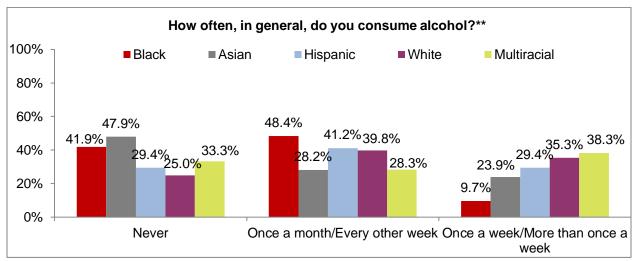


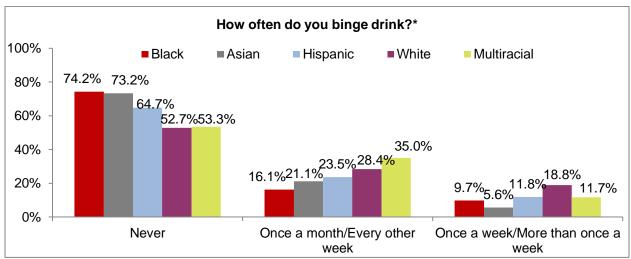


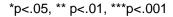
Shown below, the frequencies of drinking and binge drinking vary significantly by residence.



Frequencies of drinking and binge drinking also vary by ethnicity.





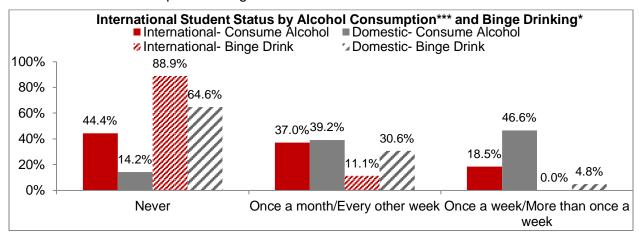


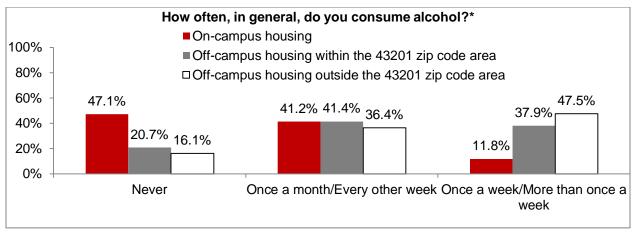
Graduate Student Demographic Comparisons

Demographic comparisons were examined for graduate and professional student respondents; only statistically significant findings are presented.

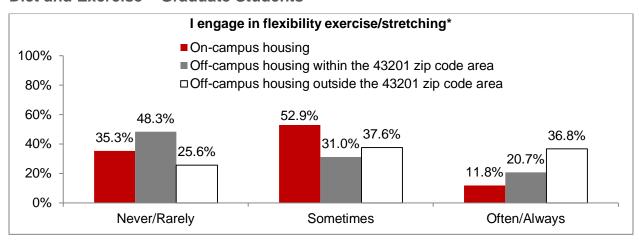
Alcohol Use – Graduate Students

International students report drinking less often than domestic students.



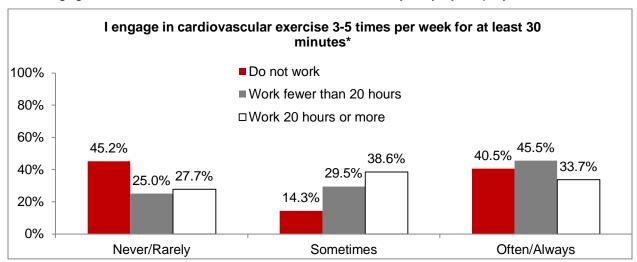


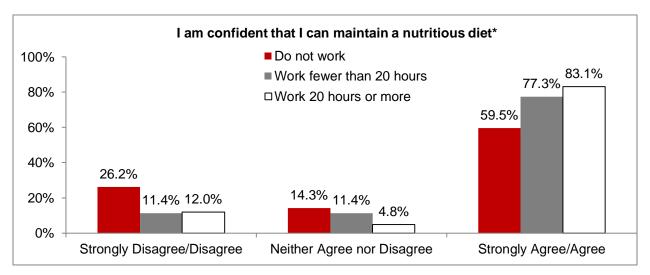
Diet and Exercise - Graduate Students



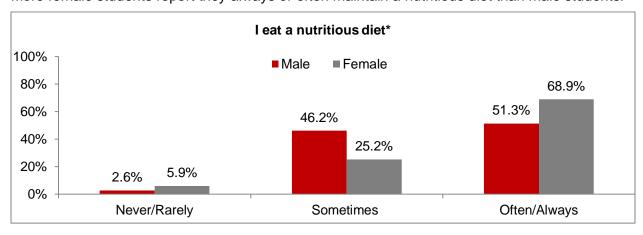


Both engagement in cardiovascular exercise and diet efficacy vary by employment.





More female students report they always or often maintain a nutritious diet than male students.

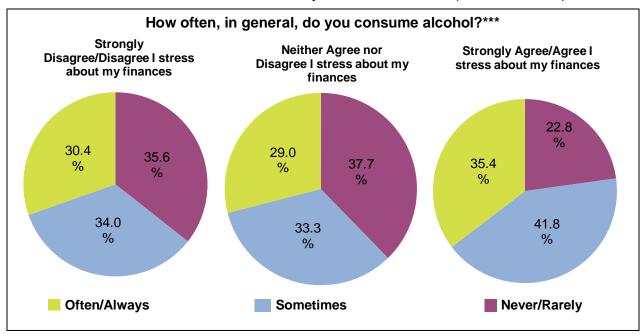


PHYSICAL WELLNESS RELATED TO OTHER DIMENSIONS OF WELLNESS

This section examines other dimensions that correlate with Physical Wellness including Financial, Intellectual, Environmental, and Emotional Wellness.

Physical and Financial Wellness - Undergraduate Students

Financial wellness is significantly related to many physical wellness outcomes. Students who are stressed about their finances are more likely to consume alcohol (see chart below).



Students who engage in cardiovascular exercise 3-5 times per week for at least 30 minutes are more likely to pay their bills on time, more confident in planning a financial budget, more likely to have enough money saved to handle financial emergencies, and less likely to report stress about the amount of money they owe. Similarly, students who engage in flexibility exercise/stretching are more likely to report they pay their bills on time, pay their credit card bills in full, have more confidence in planning a financial budget, are more likely to have enough money saved to handle financial emergencies, and are less likely to report stress about the amount of money they owe.

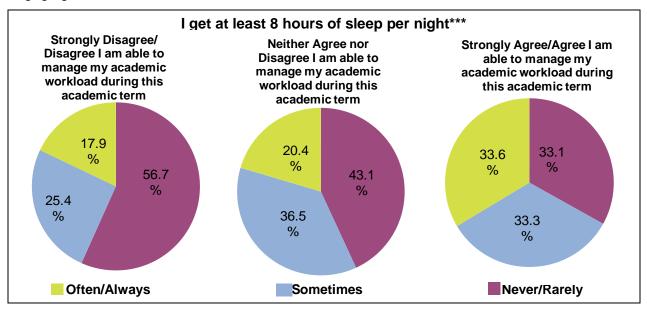
Students who report getting at least 8 hours of sleep per night are more likely to report having money saved for financial emergencies, tracking their spending to stay within their budget, paying their bills on time, and paying off their entire credit card balance each month.

Students who track their spending to stay within their budget are more likely to report eating a nutritious diet. Positive diet efficacy and behaviors are also positively associated with being confident in planning a financial budget, having enough money saved to handle financial emergencies, being able to pay bills on time, and tracking spending to stay within a budget.

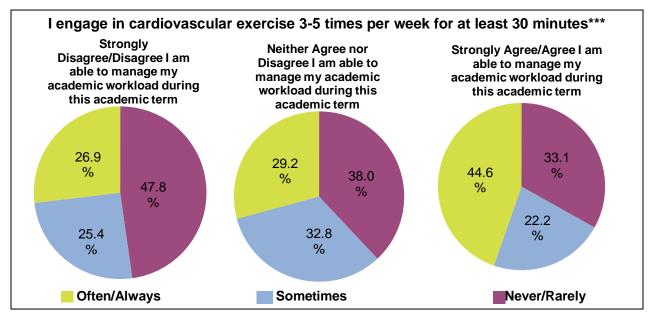


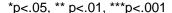
Physical and Intellectual Wellness - Undergraduate Students

Physical and intellectual wellness are related in several statistically significant ways. The chart below demonstrates that students who are able to manage their academic workload during the academic term are more likely to get at least 8 hours of sleep. Among students who strongly agree or agree that they get at least 8 hours of sleep per night, 33.6% report they often or always are able to manage their academic workload, compared to 17.9% of students who strongly disagree or disagree that they get 8 hours of sleep. Additionally, students who report sleeping at least 8 hours per night are significantly more likely to report engaging in intellectually engaging activities.

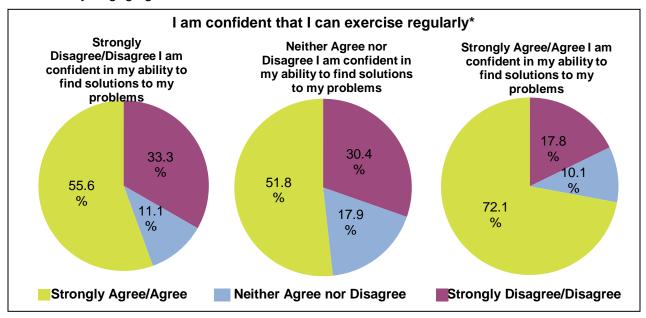


Students who are able to manage their academic workload during the academic term are more likely to engage in cardiovascular exercise 3-5 times per week for at least 30 minutes (see chart below). Students who report that they are more often or always able to manage their academic workload are also significantly more likely to engage in flexibility /stretching activities, more confident in exercising regularly, and more confident that they could maintain a nutritious diet.

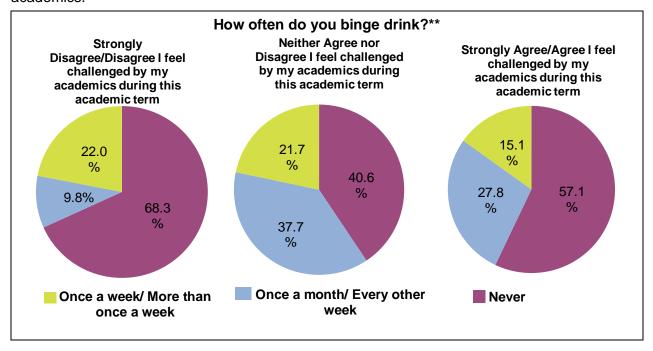




Diet efficacy and behaviors have positive associations with the ability to resolve conflicts peacefully, engaging in intellectually engaging activities, confidence in academic major decisions, and problem solving efficacy (see chart below). Furthermore, students who engage in cardiovascular exercises and in flexibility exercise/stretching were more likely to engage in intellectually engaging activities.

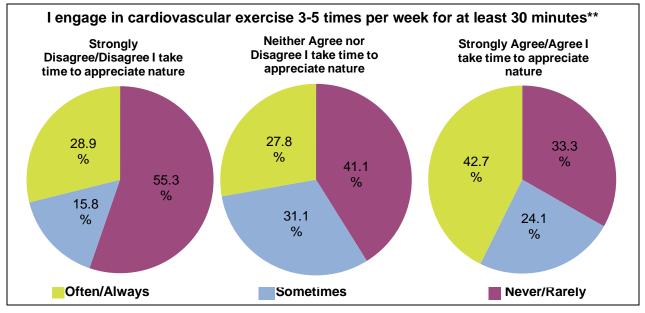


Students who feel challenged by their academics are less likely to binge drink once a week or more (see chart below), but also less likely to report that they never binge drink. Students who consume alcohol more frequently are more likely to report feeling challenged by their academics.

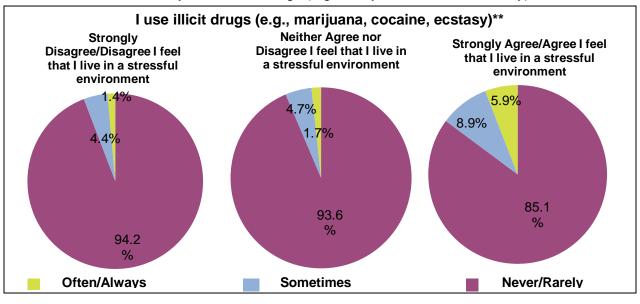


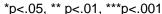
Physical and Environmental Wellness - Undergraduate Students

The chart below demonstrates that students who take time to appreciate nature are more likely to engage in cardiovascular exercise 3-5 times per week for at least 30 minutes. Students who report they engage in flexibility exercise/stretching are more likely to think it is important to conserve natural resources, take time to appreciate nature, and engage in environmentally friendly behaviors.



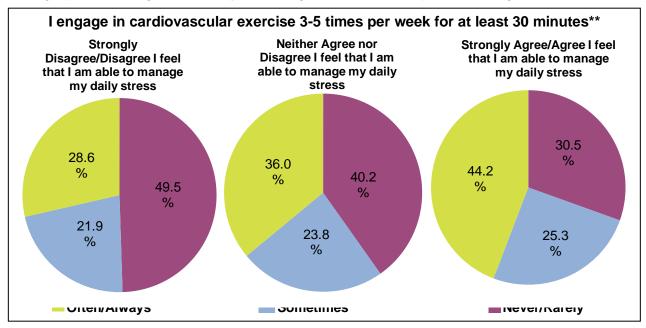
Students who feel confident that they can maintain a nutritious diet are more like to report they recycle, if given the opportunity, and less likely to report they feel like they live in a stressful environment. Diet efficacy and behaviors were also significantly associated with: taking time to appreciate nature and their surroundings, feeling like they live in a welcoming environment, engaging in environmentally friendly behaviors, and thinking it is important to conserve natural resources. The chart below demonstrates that students who feel that they live in a stressful environment are more likely to use illicit drugs (e.g., marijuana, cocaine, ecstasy)





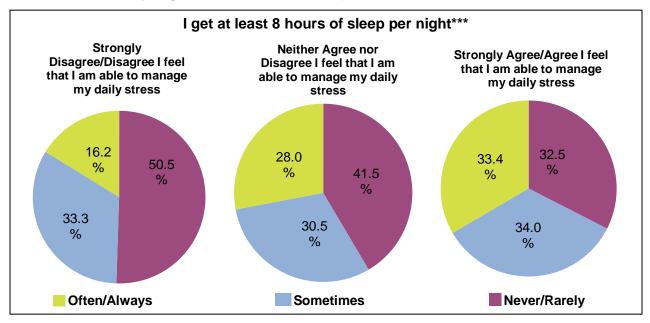
Physical and Emotional Wellness - Undergraduate Students

The chart below demonstrates that students who engage in cardiovascular exercise 3-5 times per week for at least 30 minutes are more likely to report that they are able to manage their daily stress. There is also a positive relationship between engagement in cardiovascular exercise and having a positive image of the body and using relaxation techniques to manage stress.



Furthermore, students who are confident about exercising regularly are more likely to have a positive image of their body, feel they are able to cope with their daily stress, and feel they are able to appropriately express their feelings.

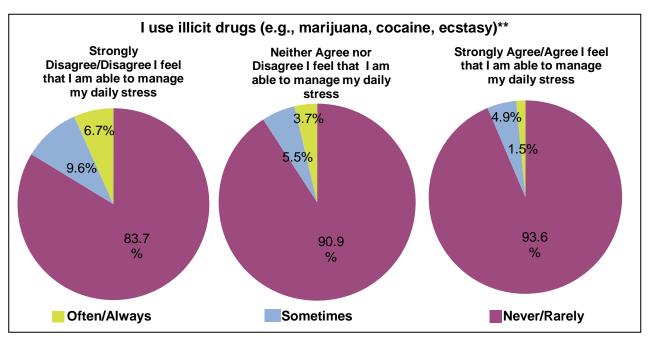
The chart below demonstrates that students who feel that they are able to manage their daily stress are more likely to get at least 8 hours of sleep.



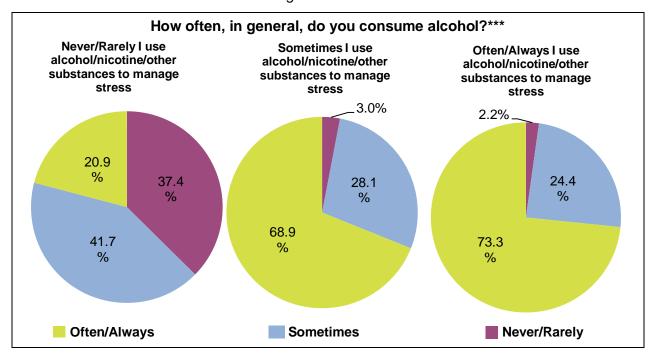


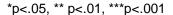
Students who are able to appropriately express their feelings are more likely to report they eat a nutritious diet. Positive diet efficacy and behaviors are also significantly associated with having a positive body image, feeling able to cope with daily stress, being able to appropriately manage feelings, and using relaxation techniques to manage their stress.

The chart below demonstrates that students who feel they are able to manage their daily stress are less likely to use illicit drugs (e.g., marijuana, cocaine, ecstasy). Students who never or rarely used tobacco products were more likely to seek help from others when having a difficult time.



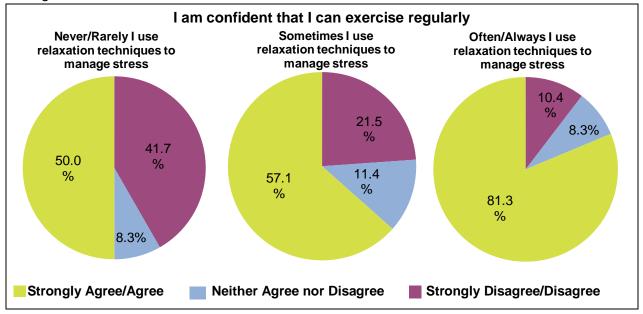
Students who report binge drinking are more likely to report often or always using alcohol/nicotine/other substances to manage stress.





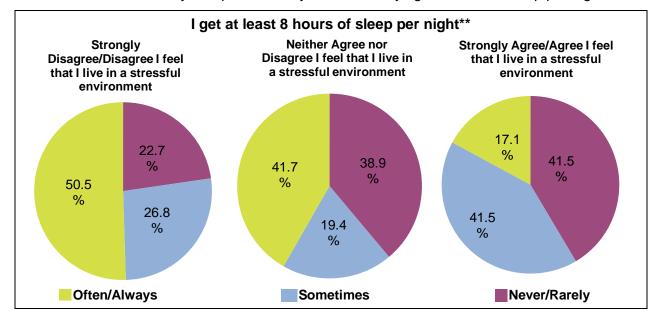
Physical and Emotional Wellness - Graduate Students

The chart below demonstrates that students who use relaxation techniques to manage stress are more likely to be confident that they can exercise regularly. Students who report more frequent engagement in cardiovascular exercise and flexibility exercise/stretching were more likely to use relaxation techniques to manage stress. Further, there is a positive association between students who engage in flexibility exercise/stretching and appropriately managing their feelings.



Physical and Environmental Wellness - Graduate Students

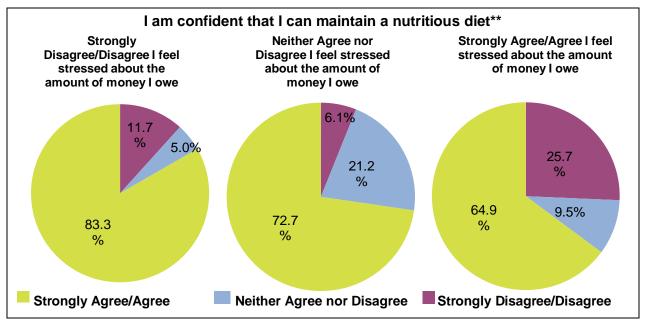
Among graduate students, students who strongly agree or agree that they live in a stressful environment are less likely to report that they often or always get 8 hours of sleep per night.





Physical and Financial Wellness- Graduate Students

The chart below demonstrates that students who feel stressed about the amount of money they owe (credit cards, student loans, car payments, etc.) are less likely to be confident that they can maintain a nutritious diet.



Students who engage in strength training/resistance exercise 2-3 times per week are more likely to report confidence in planning a financial budget and less likely to feel stress about finances. The chart below demonstrates that students who stress about their finances are less likely to get at least 8 hours of sleep. However, students who get at least 8 hours of sleep are more likely to report they are comfortable leaving a balance on their credit card(s) and less likely to track their spending to stay within their budget.

