

## **UW-Stevens Point's Summary of the National College Health Risk Behavior Survey**

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### **SUMMARY**

Lifestyle choices greatly influence the academic success of college students. To complement the already established studies at UW-Stevens Point regarding student alcohol and other drug-related risk factors and student sexual experiences, the National College Health Risk Behavior Survey (NCHRBS) was administered. The survey tool was designed to investigate lifestyle choices surrounding fitness, nutrition, and stress.

The survey was administered to a random sample of 2,000 undergraduate students (1,000 male and 1,000 female), who were invited to participate in the survey through a weblink embedded in a message delivered to their campus e-mail address. Of the 2,000 survey invitations, 746 students responded to the survey (299 male, 445 female, 2 unreported). After participating in the survey, subjects were provided with a printable information sheet regarding the various risk behaviors addressed in the survey as well as campus resources available to them.

The data collected from this survey will create a baseline for health risk behaviors of UWSP students. This survey will be administered every biennium to establish trends in student lifestyle behaviors and evaluate the effectiveness of campus education and prevention programs.

### **LITERATURE REVIEW**

College is an exciting time of life. Along with the excitement of college, students experience changes in responsibilities, lifestyle and academics requirements. These transitions often challenge students' abilities to lead balanced, healthy lives. According to Huang, et al. (2003), data from the last national administration of the NCHRBS "suggests that 35% of college students may be overweight or obese". A decrease in physical activity levels and unhealthy food choices are major factors in college student weight gain. Kilpatrick, Hebert, and Bartholomew (2005) found that participation in moderate physical activity declines from high school to college, and that college activity levels are not sufficient to improve a student's health and fitness. This information corresponds with research by Racette, Deusinger, Strube, Highstein, and Deusinger (2005) who identified that most significant weight gains occur in people between the ages of 18-29. Additionally, they found that the biggest decrease in physical activity levels occur among people who are 18 to 19 years old- or freshman and sophomores in college. This decline in physical activity is supported by data that, on average, college students gain nine pounds during their first and second years of school. In addition, *Healthy Campus 2010* has identified physical inactivity as one of the six priority health risk behaviors of the college population (Keating, Guan, Pinero, & Bridges, 2005).

Furthermore, research shows that college students struggle to maintain a balanced diet. According to Huang, et al. (2003), national averages of fruit and vegetable consumption among college

students are significantly lower than daily recommended amounts, while consumption of fried foods are significantly higher than recommended. Poor nutrition is another factor that contributes to weight gain among college students. As stated earlier, nearly 35% of college students may be overweight or obese. Nearly half (46%) of these students report trying to lose weight by improving their food habits and choices. To assist with healthy food choices, students have expressed a desire to have more information available on healthy eating on a budget and healthy meal planning (Cousineau, Goldstein, & Franko, 2004). Brown, Dresen, and Eggett (2005) found that pre-paid campus meal plans are helpful in providing a more balanced diet for college students. On average, students who participate in a campus meal plan have higher intakes of fruit, vegetables and protein because these items are more readily available.

Stress is another health risk among college students. Unfortunately, in reviewing literature, there is a lack of information available on college student stress levels and coping techniques. Information found revealed that compared to other demographic groups, college students experience a unique set of stressors. Among these are the adjustment to college life, strain on relationships due to academic pressure, changes in housing arrangements and lifestyle, and ineffective coping skills. According to Murff (2005), college students report their biggest stressors are adjusting to a change in sleeping and eating habits, managing new responsibilities and heavier workloads, and dealing with breaks from the academic year. MacGeorge, Samter, and Gillihan (2005) suggest that stress from academics contributes to symptoms of depression and physical illness in college students, so it's important that students know proper stress management techniques.

## **FINDINGS & CONCLUSIONS**

The data revealed significant results for all three areas- exercise, nutrition, and stress.

### *EXERCISE-*

Students were asked how many times in the past seven days they exercised or participated in sports activities for at least 20 minutes that made them sweat or breathe hard. Nearly 40% of students (39.9%) exercised or participated in sports activities three to five times a week. The American College of Sports Medicine (ACSM) recommends 20-60 minutes of continuous aerobic activity three to five days a week (<http://www.acsm.org>). While an impressive number of students met the ACSM recommendations, almost 50% (49.9%) of students reported exercising or participating in sports fewer than three times a week. Our data also revealed that students who participate in intramurals also participate in aerobic activity more often than those that do not participate in intramurals. 52.6% of students who participate in IM also participate in aerobic activity three to five times a week, compared to 34.2% of students that don't participate in intramurals\*. In addition, students were

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\*data is statistically significant

asked if they walked or bicycled for at least 30 minutes at a time in the past seven days. 38.9% of students reported walking or bicycling the recommended 3-5 times in the past seven days, while almost 20% of respondents reported not walking or bicycling for 30 minutes in the past seven days. Of the respondents who walked or bicycled for 30 minutes three to five times in the past seven days, 42.4% were female and 33.6% were male\*.

Previous research indicates that strength training and stretching are important components of physical health. The ACSM recommends strength training two or more times a week. 47% of students reported strength training two or more times per week whereas 40% of respondents did not engage in any strength training activities in the past week. Of those that reported meeting the ACSM recommendations, 42.3% were female and 55.2% were male\*. To maintain range of motion and decrease injury, the ACSM recommends stretching at least three days per week. 41.4% of students report stretching three or more days a week, while 29.6% report doing no stretching exercises in the past seven days, and another 28.3% report stretching only once or twice a week.

*NUTRITION-*

Students were asked a variety of questions regarding food intake to better understand their eating patterns and choices. To determine if students were meeting recommended dietary guidelines, we looked to the food guide pyramid developed by the United States Department of Agriculture. The food guide pyramid was recently updated and is now able to be customized based on a person's age, gender and physical activity level (<http://www.mypyramid.gov/>). In addition, recommended amounts are now given in ounces and cups rather than number of servings. Due to the new customization feature, there are no longer specific recommended servings associated with each food group. To determine the daily recommended serving numbers for college students, we developed a profile for both active and sedentary 20 year old males and 20 year old females, and then compared the results. We calculated one serving of fruit or vegetable to be the equivalent of 1/2 cup of that fruit or vegetable. This table summarizes our conclusions:

	Male (sedentary)	Male (active)	Female (sedentary)	Female (active)	Serving Recommendation
Fruit	2 cups	2.5 cups	2 cups	2 cups	2-2.5 cups = 4-5 servings
Vegetable	3.5 cups	3.5 cups	2.5 cups	3 cups	2.5-3.5 cups= 5-7 servings

As a result, when looking at the survey data, we will use the recommended servings calculated in the chart- four to five servings of fruit per day, and five to seven servings of vegetables per day for college students. Specifically, students were asked how many times in the past seven days they consumed fruit, green salad, and vegetables. With respect to fruit, only 30.5% reported consuming

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\*data is statistically significant

fruit one or more times per day. The majority, 69.6%, reported consuming less than one fruit a day. Off-campus students consume fruit less frequently than those who live on campus or with their parents. 36.6% of on-campus students, 33.2% of students who live with their parent/guardian and 24.1% of off-campus students consume fruit at least once per day\*. Results were similar for both consumption of green salad and vegetables. Only 9.5% of students ate green salad once a day, while 89.6% ate less than one salad a day. Of the people that ate less than one green salad a day, 24.9% report consuming no green salad in the past week. Furthermore, 31.9% of students indicated they ate vegetables once or more a day in the past seven days, but the greatest percentage of respondents, 66.7%, reported consuming less than one vegetable per day. According to the data, green salad consumption decreases as class standing increases. With respect to eating green salad, 79% of seniors, 75.5% of juniors, 71% of sophomores and 67% of freshmen report eating green salad fewer than three times in the last seven days. In addition, students living on campus or at their parent/guardians home report consuming green salad more frequently than those that live elsewhere. 35.6% of on-campus students report eating green salad four or more times per week, while 21.6% of off-campus students and 17.2% of those who live with their parent/guardian report the same\*.

Survey questions were designed to gain information about the number of times students consumed fruit, green salad, or vegetables, but the information we used to determine if dietary recommendations were met is in servings. This could cause a challenge because some fruits- like one banana or large apple, may count as two servings of fruit. Seeing we don't know what fruits or vegetables the students ate, or in what quantity, we cannot determine exactly how close-or far- students were from meeting dietary recommendations. Looking at the data, though, it is clear that the majority of UWSP students aren't consuming an adequate number of fruits and vegetables on a daily basis.

The survey also inquired about dessert and sugar consumption. The food guide pyramid encourages limited intake of fats and sugar. According to our data, 11.1% of students consumed no dessert items, but the majority (73.7%) of students reported consuming dessert items such as cookies, ice cream, pie or cake one or more times in the past seven days. Only 4.3% of students reported consuming no sugary foods, like soda, candy, chocolate or sugared cereal, while 37.1% of students consumed sugary food products one or more times a day, which is above the dietary recommendations according to the food guide pyramid. The frequency of sugar consumption decreased as class standing increased. 36.4% of freshman report consuming sugar four to six times in the last seven days. While 33.5% of sophomores, 31.5% of juniors, and 30% of seniors report the same\*.

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\*data is statistically significant

## STRESS-

To better understand student stress levels, participants were asked about their perceived stress level, stress management techniques, and the stressors that increase their stress levels. Similar to the lack of research and information available on stress, as mentioned earlier, few health risk behavior surveys assess stress levels. As a result, when preparing the survey tool, we needed to develop the stress-related questions asked on the survey because the original tool did not address perceived stress, stress management, or coping techniques. Through these questions, we found the majority of students, 50.1%, describe feeling slightly over-stressed, while 31.9% feel they're experiencing the right amount of stress. Furthermore, 85.5% of students living in the residence halls, 79.4% of off-campus students, 79.3% of students living with their parent/guardian, and 100% of students living elsewhere report experiencing the right amount of stress or feeling slightly over stressed\*.

Students were also asked to rate several routine sources of stress in the past month on a scale from '1' to '7'. A rating of '1' meant that item was not a source of stress and a rating of '7' meant that item was a significant source of stress. For data analysis purposes, an item ranking of '4' was considered an average stressor, while rankings below were considered less stressful, and rankings above were considered more stressful. Overwhelmingly, students reported their biggest sources of stress were academics and money. A clear majority, 69.9% rated their stress resulting from academics between '5' and '7'. Of these, 22.4% of males reported academics as a significant stressor, compared to 16.5% of females\*. In addition, academics were reported as a significant stressor over the past 30 days nearly equally among students in each class. 73.8% of freshmen, 67.7% of sophomores, 72.2% of juniors, and 69.8% of seniors ranked academics as a significant source of stress\*. The second most prominent source of stress was money. 49.8% rated stress resulting from money between '5' and '7', with approximately half of students living with their parent/guardian (53.9%) and those living with roommates/friends (50.3%) reporting money as a significant stressor in the past 30 days\*. In addition, 66.2% of students living in an off-campus house or apartment and 60.3% of students living with their parent/guardian report money as a significant stress or in the past 30 days, compared with 41.5% of on-campus students\*. Other sources of stress include: procrastination (36.9%), time management (30.1%), life direction/planning (29.7%), relationships with non-family members (26.1%), and work for pay (22.1%). Just over half of the respondents (52.4%) reported trying to reduce their stress levels. The most popular methods to prevent stress included using personal organization strategies such as making lists or using a planner (58.2%) and physical strategies that include eating healthy, exercising, and getting enough sleep (63.0%). In addition, students were asked about actions taken to manage or reduce stress. Options included talking to a professional, talking to a non-professional (family, friend), using relaxation techniques, using

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\*data is statistically significant

personal organization systems, participating in physical activities, using alcohol/drugs, and 'other' to indicate an option not mentioned. Data from this question could provide beneficial information about programs or services that would benefit students. Unfortunately, data from this question was not valid due to an html formatting error in the web-based survey. Of the data that was valid, 63.8% reported participating in physical activity to reduce their stress level.

## **LIMITATIONS**

Although the survey yielded beneficial information about the health risks of UWSP students, there were a few factors that limited the information received. First, the html formatting error in the web based survey prevented us from gaining valid information about student stress levels; specifically with respect to what students do to reduce stress. This information would have been beneficial for the evaluation of current programming. Second, the nutrition recommendations from the Food Guide Pyramid changed with the recent update to the pyramid. Previously, there was a set range of serving recommendations for each food group. Now, the suggested servings are customized based on and individual's age, weight, gender, and level of physical activity. We weren't able to analyze each individual's food guide pyramid recommendations with their actual intake, but instead compared their reported intake with the profile of a typical active and sedentary college student.

## **RECOMMENDATIONS FOR FURTHER ACTION**

Based on the study findings, the following recommendations are made within each health risk area examined:

- With respect to exercise and fitness:
  - Organize and implement a campus-wide social marketing campaign surrounding the importance of exercise and fitness.
  - During the 2006-2007 academic year, increase the number of students engaging in cardiovascular exercise and physical activity three to five times a week from 39.6% to 41.6%, representing a 5.0% increase. During the 2007-2008 academic year, increase the number of students exercising three to five times a week another 5.0% from 41.7% to 43.8%.
  - During the 2006-2007 academic year, increase the number of students engaging in stretching exercises three times a week from 14.7% to 15.44%, representing a 5.0% increase. During the 2007-2008 academic year, increase the number of student stretching three times a week another 5.0% from 15.5% to 16.3%.
  - During the 2006-2007 academic year, increase the number of students participating in strength training activities 2-3 times a week from 26.6% to 27.9%, representing a 5.0% increase. During the 2007-2008 academic year, increase the number of students participating in strength training 2-3 times a week another 5.0% from 28% to 29.4%.

- With respect to nutrition:
  - Re-institute the Gold Star Foods program, which highlighted healthy food choices at on-campus dining facilities.
  - During the 2006-2007 academic year, decrease the number of students that report eating less than one fruit per day from 69.6% to 66.1%, representing a decrease of 5.0%.
  - During the 2006-2007 academic year, increase the number of students consuming at least one fruit per day from 13.3% to 14%, representing an increase of 5.0%. During the 2007-2008 academic year, increase the number of students consuming at least one fruit per day another 5.0% from 14% to 14.7%.
  - During the 2006-2007 academic year, increase the number of students consuming at least one vegetable per day from 16.2% to 17%, representing an increase of 5.0%. During the 2007-2008 academic year, increase the number of students consuming at least one vegetable per day another 5.0% from 17.1% to 18%.
  - During the 2006-2007 academic year, decrease the number of students consuming sugar one or more times a day from 37.1% to 35.2%, representing a decrease of 5.0%. During the 2007-2008 academic year, decrease the number of students consuming sugar once or more per day another 5.1% from 35% to 33.1%.
  
- With respect to stress:
  - Use campus peer educators to provide personal wellness coaching over the phone for students that don't frequently come to campus.
  - During the 2006-2007 academic year, increase the number of students that perceive their level of stress as 'just right' from 31.9% to 33.5%, representing an increase of 5.0%. During the 2007-2008 academic year, increase the number of students that perceive their stress level as 'just right' another 5.0% from 33.5% to 35.2%.
  - During the 2006-2007 academic year, decrease student perceptions of the intensity of academics as a significant source of stress from 69.9% to 66.4%, representing a decrease of 5.0%. During the 2007-2008 academic year, decrease student perceptions of academics as a significant source of stress another 5.0% from 66.2% to 62.9%.
  - During the 2006-2007 academic year, decrease student perceptions of the intensity of money as a significant source of stress from 49.8% to 47.3%, representing a decrease of 5.0%. During the 2007-2008 academic year, decrease student perceptions of money as a significant source of stress another 5.0% from 47.3% to 44.9%.
  
- At the next administration of this survey, correct the html formatting error that yielded invalid

data for question 19 regarding the stress reduction techniques students used in the last seven days.

The data presented has provided greater insight into the health risk behaviors of UW-Stevens Point students. The recommendations above will be considered, and current programs and services offered to students will be assessed to make necessary improvements that will assist the students of UW-Stevens Point in leading healthier, well-balanced lives.

## RESOURCES

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