Healthy U student wellness project

Executive Summary
October 2014
Introduction

Health and well-being are key contributors to academic persistence and personal success. Therefore, it is important for the university to understand the health status and behaviors of the student population through periodic assessment in order to appropriately address identified needs through strategic planning and resource development. University Health Services (UHS) collaborated with Institutional Research and Analysis to develop and administer a population-based student health assessment. Counseling and Psychological Services (CaPS) and the Department of Athletics contributed survey items relevant to their particular domains. The population-based survey was sent through campus student email to all enrolled undergraduate (UG) and graduate (GR) students on the Pittsburgh campus (total 11,631), with a 36.1% response rate (n=4,193) during October of 2013.

The findings, across multiple health domains, will guide UHS’ strategic planning process, inform the Healthy Campus initiative and support the mission of the university. The following report is intended as a high-level overview of the key findings in each health area. When appropriate we will reference national student health information using the American College Health Association-National College Health Assessment II: Reference Group Data Report Fall 2013.

Background

The Healthy U: Student Wellness Project replaced the American College Health Association National College Health Assessment (ACHA-NCHA) tool previously administered by UHS. The last ACHA-NCHA survey was administered in 2009 and sampled only a portion of the undergraduate population, with a 16.9% response rate (n=482).

Healthy U is the first full population health assessment administered to all enrolled students on the Pittsburgh campus. The health behavior domains explored within the tool include the general physical and mental health of college students, academic impacts, stress, substance use, sleep, nutrition, physical activity and sexual health. The goals of this project were to:

- Identify health and wellness needs to guide resource allocation, as well as service and program development;
- Support the institutional priority to understand student stress and its relationship to other health behaviors;
- Utilize the findings to direct work within UHS, in partnership with CaPS, Athletics and across the university.
Methods

The University’s Office of Institutional Research and Analysis administered the Healthy U: Student Wellness Project electronically by email invitation to all undergraduate (UG) and graduate (GR) students on the Pittsburgh campus. Participant responses were reported in a confidential manner with individual identifiers removed. Personal health records were not used or reviewed to collect data. UHS followed best practices in behavioral and community health science fields by implementing a self-report survey to assess the health needs of the campus community.

Response Rates

<table>
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<th>Population</th>
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<th>Error Level</th>
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<td>11631</td>
<td>4193</td>
<td>36.1%</td>
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Results

General Health

The majority of all students (UG = 80%, GR = 83%) rated their current level of physical health as good, very good, or excellent. Nationally, 91.1% of college students report the same. Students’ perception of their physical health and mental health were highly positively correlated with one another, a finding expected within the young adult population.

Students had the opportunity to report health conditions they had experienced since the fall semester began and to identify which health conditions negatively impacted their academic performance. Feeling anxious, not managing stress well, and feeling depressed were reported by more than 25% of both UGs and GRs; more than 50% of students who experienced these conditions reported that they had a negative effect on their academic performance. This finding may reflect broader cultural trends, as similar experiences are reported by students across the U.S. Nationally, stress, anxiety and sleep difficulties were cited most frequently as the conditions affecting academic performance.
Although the following conditions were reported by fewer than 25% of all students, more than 50% of students experiencing these conditions reported that they negatively impacted academic performance: sleep difficulties, chronic illness or health problem, having attention deficit hyperactivity disorder (ADHD), having an eating disorder or problem, having been in an emotionally, sexually or physically abusive relationship, having been sexually assaulted, having a sexually transmitted infection, and being pregnant. These conditions have broad and significant impacts on individual and community well-being. Consequently, students with these conditions often utilize services and professional support more frequently than the general population. Ongoing evaluation of the capacity of our healthcare service models and on-campus treatment options is important.

**Stress**

Half of first-year UGs, two-thirds of upper-class UGs and over 50% of GRs reported their stress level as high to very high during the survey administration period of October 17 – November 5, 2013. Again, this finding reflects cultural trends, with national data indicating that more than 50% of students reported higher than average or tremendous stress levels during the past year.

Within the UG population, the following factors were associated with an increase in reported stress level: being female, primary enrollment in a STEM college (CIT, MCS, SCS), membership in a Greek organization and increasing class level. Factors associated with a decrease in reported stress level included being a varsity athlete, increasing fall 13 semester GPA and increasing high school SAT math score. Citizenship, minority status, Pell grant in academic year 2014, having a student loan balance, high school GPA and SAT reading score were not associated with stress related outcomes.

Within the GR population, the following factors were associated with an increase in reported stress level: being female, being an international student, and being a first semester graduate student. No effects were found for minority status, college of enrollment, degree level or fall semester GPA.

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**Healthy U question #33**

What are the three top sources of stress in your life?

- Meeting others’ expectations of you
- Financial concerns
- Overloaded course schedule
- Too much academic work
- Difficulty of academic work
- Relationships with friends
- Relationship with a romantic partner
- Feeling isolated or lonely
- Concern about your own health
- Health concerns about someone close to you
- Social pressures
- Poor time management
- Commitments to extra-curricular activities, groups, or teams
- Family problems
Approximately 60% of the UGs and more than 60% of the GRs who reported moderate to high stress also reported that they did not manage the stress well. Among both UG and GR respondents, being female and being an international student were associated with a decrease in ability to manage stress.

Undergraduates identified these areas as top stressors: difficulty of academic work (48%), amount of academic work (42%), commitments to extra-curriculars (33%), poor time management (30%) and meeting others’ expectations (30%). An unexpected finding was that 22% of UGs reported feeling isolated or lonely as a stressor.

Graduate students reported career concerns (46%) as the number one stressor, followed by too much academic work (40%), difficulty of academic work (31%), meeting others’ expectations (31%), and poor time management (29%).

Students were also asked to identify what they do to manage stress, by selecting all activities that applied from a list of 17 options. The most commonly reported stress management activity among all students was sleep. Among those activities considered to be “healthy”, doing something fun, physical activity, and talking with a friend or family member were the most frequently cited strategies by both populations. Among those activities considered to be “less healthy”, procrastinating, eating more than usual, and isolating yourself from others were the most commonly reported strategies by all students. Tobacco use and drug use for stress relief were the least reported out of 17 possible strategies, reported by less than 6% of all students.

As mirrored by national data, high stress and low ability to manage stress are common experiences for our students. In addition, academic performance is directly impacted by a student’s ability to manage stress. The survey results point to several opportunities to enhance support for both undergraduate and graduate students in the area of stress management. The data suggests one need for students may be an increase in awareness of a greater variety of healthy stress management strategies, as well as opportunities and guidance for building skills to utilize these strategies. The results also suggest that certain student populations are more likely to report high stress and low ability to manage stress; further exploration of this finding could help to identify opportunities to improve support for these students.

1 The 17 strategies included: sleep, eat more than usual, eat less than usual, do something that is fun for you, do something that is meaningful to you, do something spiritual, talk to a counselor, talk with someone who is not a counselor, isolate yourself from others, physical activity, procrastinate, smoke cigarettes, use drugs, drink alcohol, spend too much time gaming, or on social media, spend too much money.
Mental Health

Thirty-two percent of UGs and 26% of GRs reported receiving mental health care of some kind or having had a significant mental health condition at any time in their lives. Sixteen percent of UGs and 11% of GRs reported two or more of these issues. Twenty-four percent of UGs and 19% of GRs reported ever participating in psychotherapy or counseling. Twelve percent of UGs and 6% of GRs reported seriously contemplating suicide at any point in their lives, with 3% of UGs and 1% of GRs reporting having attempted suicide. Nine percent of UGs and 5% of GRs reported intentionally harming oneself at any point in their lives. A significant percentage of students who reported these potentially harmful issues at any point in life also reported that they have never engaged in psychotherapy or counseling.

Counseling & Psychological Services Utilization at Carnegie Mellon

Seventeen percent of UGs and 13% of GRs reported having accessed services at CaPS. For both UGs and GRs, women were more likely to utilize CaPS services, while athletes and international students were less likely to do so. Upper-class UGs were more likely to utilize CaPS. For GRs, Master’s and first-semester students were less likely to do so. Nationally 12% of people aged 18-25 utilize mental health services.\(^2\)

Social Connectedness and Health Status

The majority of UGs and GRs reported having close friend and family connections that they confide in and count on when needed and two or more groups within which they can find support. Five percent of respondents indicated that they have no one to confide in. In both student groups, higher perception of both physical and mental health was positively associated with having more family, groups, and acquaintances in which to confide. Lower perception of health was associated with having no one to confide in and reporting mental health issues in self or family. Promoting social connectedness (through creating a sense of community, fostering relationships, etc.) is one area in which students believe the university does well to support their overall wellness.

Alcohol and Other Substance Use

More than one-third of both UGs and GRs did not consume alcohol in the past thirty days. This is about the same as the national data reporting 35.3%. Of those who reported drinking (UG n=1,108; GR n= 1,240), the majority of students (UG= 59%, GR= 84%) had three or fewer drinks on a

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\(^2\)U.S. Department of Health and Human Services. Results from the 2012 National Survey on Drug Use and Health: Mental Health Findings.
typical drinking day. The majority of student respondents are drinking within low-risk limits.

More than half of UGs and nearly one-third of GRs reported at least one episode of binge drinking\(^3\) in the past 30 days. Being a social Greek increased a student’s odds of drinking and social Greeks reported more high-risk drinking behaviors, including more binge drinking episodes in the past 30 days. Being a varsity athlete also increased a student’s odds of drinking and athletes reported consuming more drinks on a typical drinking day than non-athletes.

While students were not asked to report their reasons for drinking in this survey, when asked about stress management strategies, 19% of UGs and 17% of GRs reported drinking alcohol to relieve stress.

Among all students who reported drinking, the most frequently reported negative consequences from drinking were: doing something that was later regretted, forgetting where they were or what they did, and missing a class or performing poorly academically. These results mirror national data. Eating before and while drinking and keeping track of drinks were the most frequently reported protective behaviors among both UGs and GRs who reported drinking.

Eighty-five percent of UGs and 87% of GRs reported that they did not use any tobacco in the past 30 days. This is nearly identical to national data at 86.3%. For those who used tobacco, a higher percentage of GRs (79%) than UGs (40%) attempted quitting or planned to attempt quitting.

Thirteen percent of UGs and 4% of GRs reported using marijuana at least once in the past 30 days. Nationally, 16.8% reported using in the past 30 days. Less than 5% of UGs and GRs used other drugs including stimulants, antidepressants, caffeine, painkillers and sedatives at least once in the past 30 days. Overall, perception of physical and mental health declined as substance use increased.

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\(^3\)Binge drinking is defined as ≥ 4 drinks per 2 hours for women and ≥5 drinks per two hours for men.
Sleep

Fifty-eight percent of UGs and 50% of GRs reported getting less than 7 hours of sleep per weeknight⁴. Three-quarters of UGs reported wanting more sleep than they get; two-thirds of GRs reported the same. For each group, the correlation between wanting more sleep and hours of sleep was inverse and very strong.

Students who reported wanting more sleep were then asked to identify what prevented them from getting more sleep. More than half of both UGs and GRs reported they needed to do other things instead of sleep, one-third of each group reported they choose to do other things instead of sleep, and approximately 10% of each group reported that they were physically unable to sleep as much as they wanted. More than half of UGs and more than one-third of GRs reported feeling tired or sleepy during the day on at least four weekdays during a typical week.

Higher reported hours of sleep and number of days feeling rested were associated with a higher perception of physical health, with the reverse relationship holding as well. Lower perception of health was associated with reports of inability to fall asleep, stay asleep, feeling tired or not getting enough sleep. These relationships were the same for both the UG and GR population.

The results show that sleep difficulties negatively impact academics, many students report that needing to do other things prevents them from getting more sleep, and academic rigor and poor time management are both frequently reported stressors. Connecting all of these findings suggests that many students are struggling to develop healthy sleep habits.

Nutrition and Body Weight

Two-thirds of students had accurate perceptions of their weight; those with misperceptions were split almost evenly between over- and under-perception. When compared to the Body Mass Index (BMI) distribution of undergraduates in the national database, higher percentages of CMU undergraduates are underweight and normal (+3 points / +13 points) and lower percentages are overweight and obese (-8 points / -8 points). This is consistent with UHS’ last two assessments in 2006 and 2009.

While we compare favorably in terms of lower rates of overweight and obesity, the Healthy U data points to poor nutritional choices that can be addressed. Eighty percent of all students reported eating less than two servings per day of fruit, vegetables, and milk; with 50-60% reported eating

⁴Current guidelines from the American Academy of Sleep Medicine advise that most adults need at least 7 hours of sleep each night for optimal health.
less than three servings of grains daily. Less than one-quarter of students are eating the recommended daily servings of fruit, vegetables, or whole grains. Although the majority of students reported eating no more than one serving of fried foods and sweets per day, being on any campus meal plan, a minority or an international student increased the odds of eating fried foods and drinking sugared beverages. Greek students are also at higher odds of consuming energy drinks, fried foods and sports beverages.

**Physical Activity**

The data on participation in physical activity is encouraging for both the UG and GR population; 79% of UGs and 78% of GRs reported physical activity each day. Thirty-eight percent of UGs and 31% of GRs meet or exceed current recommendations with 30 minutes or more of physical activity per day; nationally, only 20% are meeting this mark. According to our survey, less than 20% of students who exercise did so in structured fitness activities such as classes, courses or intramurals; the majority reported working out in less structured ways.

**Sexual Health**

Forty-eight percent of UGs and 58% of GRs reported one or more sexual partners in the past year. Nationally, a greater number of students report being sexually active (70.5%). More than 90% of students with opposite sex partners reported using a method to prevent pregnancy most or all of the time. We compare very favorably to national data for this behavior, with 55.6% of sexually active students reporting mostly or always using a method to prevent pregnancy. Both men and women reported male condoms as the most commonly used method of preventing pregnancy.

Our survey results do point to some areas in need of improvement. Among students who reported having same sex partners and among students who reported participating in oral or anal sex, rates of condom or other barrier use most or all of the time were much lower, ranging from 0% (UG women who had oral sex with women) to 77% (UG men who had anal sex with men). Only one-quarter of students who had at least one sexual partner in the past year has been tested for an STI in the past year.

**University Impact on Overall Wellness**

Students were asked what they believe the University does best to improve their overall wellness. The major themes for both UGs and GRs were in the areas of campus life, which include sense of community, fostering relationships and providing fitness opportunities. When asked what the University could do better to improve their overall wellness, the major themes were in the areas of nutritional offerings and academic workload (more reasonable expectations, less work, greater balance in workload). Improved fitness opportunities were a major theme for graduate students.
Summary

Overall, the findings are encouraging and generally reflect a state of positive health for our student body. We also compare favorably or comparably to national data in many areas of student health and well-being. Of note, the majority of students are displaying low-risk alcohol and drug use patterns, most students find time to engage in physical activity on a daily basis, rates of overweight and obesity are low, and our students report high rates of pregnancy prevention practices. These positive findings are a reflection of the University’s commitment to promoting student health and well-being.

While there are no major differences noted in the health behaviors and needs of UG and GR populations, the results suggest that there are groups of students who may be more vulnerable to certain health risks. Further exploration will be helpful in determining appropriate strategies to address the health needs of these populations. Stress, nutrition, relationship issues, preventive health services and sleep are noted areas for examination and targeted strategies.

Because many of these health behaviors and needs are interconnected and have a reciprocal relationship with academics, an integrative, comprehensive public health framework should guide our strategies for promoting physical and mental health. This approach requires collaboration, commitment and planning on the part of various stakeholders who influence both the academic and the co-curricular student experience.