Stress trends at Georgetown University
An analysis of ACHA-NCHA data from Spring 2008

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Georgetown University
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Abstract

This paper focuses on the evaluation of Georgetown University’s student responses to the American College Health Association-National College Health Assessment from spring 2008. Specific questions from the ACHA-NCHA were isolated and analyzed by year in university. Desired analysis was aimed at trends in stress, anxiety and depression by year in school, race and gender. However technical problems prevented the analysis of race and gender. Thus, further investigation is needed to isolate year in university, race and gender as predictors of stress and stress associations for the questions analyzed in the spring 2008 data. Investigating the spring 2010 data for the ACHA-NCHA II can also provide insight into these independent variables.
Introduction

Stress in a collegiate atmosphere is a topic frequently covered in psychological research. There have been studies done on this unique population to try to uncover the best measures of stress, sources of stress, magnitude of the feeling, coping mechanisms and prevention techniques. Although each university population is different, studies have shown similar patterns in students in general.

In the article by Kagan (1987) a set of personality traits thought to pertain to stress were analyzed using self-report scales. Items were selected from Girdano and Everly (1977) which measured anxiety, overload, boredom/loneliness, lack of self confidence, Type A, and Frustration. Analyzing responses from 592 subjects led to the development of the Dispositional Stress Scales. This measure was then used in a series of eight studies. This study showed that students who were vulnerable to stress due to anxiety, overload or lack of confidence preferred a highly structured, non social, non-discussion based environment while those who were vulnerable to stress due to Type A characteristics preferred a social and interactive class environment (Kagan, 1987). The author notes that these personality traits are not necessarily negative or positive but instead lend different strengths and weaknesses to the student.

Crandall, Preisler, and Aussprung (1992) developed the Undergraduate Stress Questionnaire (USQ) to measure stress specifically in the college population. Through a series of studies, the instrument was conceptualized and strengthened. In the first study undergraduates were asked to list both major and minor life event stresses which helped the researchers generate a list of the most common stressors. The students were then given the condensed list and asked to rate how stressful and also how common the events were. This manner of developing the measure insured that many of the stressors were unique to the population of undergraduate students (25%) while other items could be labeled as not related to college (61%) or both (13%) (Crandall et al., 1992). Further, the items rated as most stressful by students pertained to college and education. The authors note that women reported more stress related to college than men which validated the results found in previous studies such as Barnett, Biener, and Baruch (1987) and Aneshensel and Pearlin (1987). The USQ was compared to other life event stress studies and the relationship of reported scores to physical symptoms and emotions. Another group of undergraduates was given the USQ, the SRRS (Holmes & Rahe, 1967), student version of the SRRS (Marx et al., 1975) and the Daily Stress Inventory (Brantley et al., 1987) all of which are designed to measure stress in an individual’s life. The students completed all four measures and rated them for completeness and accuracy of the investigation of stress in the student’s life. The USQ was rated highest on both variables. The culmination of studies showed that the measure had internal consistency and reliability (Crandall et al., 1992). This study underlines the importance of creating and using an appropriate measure for the undergraduate population to obtain the most accurate measure of stress among students.

Towbes and Cohen (1996) created the College Chronic Life Stress Survey. This survey consisted of 54 items designed to measure chronic stress and psychological distress. A series of 3 studies were completed. Results showed that first year students were scoring higher than other students on this scale. The ongoing occurrence of a stressful situation or process likely means
that coping strategies were not successful (Towbes & Cohen, 1996). The authors cite Cohen et al., (1987) and the idea that populations which are undergoing a developmental transition are thought to be especially vulnerable to the stress (Towbes & Cohen, 1996). Further Chickering and Havighurst (1988) note that four developmental tasks: achieving emotional independence from family, career choice and preparation, relationship and commitment preparation and ethical development are all required of the college student (Towbes & Cohen, 1996). The study evaluated over 300 undergraduate students and 61% were women and 92% were white (Towbes & Cohen, 1996). The students were given both the CCLSS and also the Marlowe-Crowne Social Desiariability Scale. Study 1 examined test-retest reliability and validity. Test-retest correlations were from .88-.90. Perhaps most importantly, this study found that first year students scored higher than other students particularly on home sickness, maintaining a long-distance relationship, choosing a major, and missing distant friends (Towbes & Cohen, 1996). The authors explain this finding by referring to Chickering and Havighurst (1988) who note that the first year in a university is often considered the most stressful because it is a dramatic transition. Also, this study found that there were some gender differences. Women were more likely to find topics related to weight stressful (Towbes & Cohen, 1996). This finding was consistent with Hamilton and Fagot (1988) who found that women reported more stress overall, there were few gender differences in frequency of stressful events, and women were more likely to find weight related issues stressful. Study 2 evaluated the relationship between chronic stress and psychological distress which results showed chronic stress as measured by the CCLSS was a significant predictor of distress in college students (Towbes & Cohen, 1996). Study 3 was essentially a replication of Study 2 although controlled for neuroticism. The results of this study showed that neuroticism exaggerates the relationship between CCLSS chronic stress and distress however it is not a causal relationship (Towbes & Cohen, 1996).

Ross, Niebling, and Heckert (1999) conducted a study on the most prevalent sources of stress among college students. Using the Student Stress Survey, the researchers examined 100 students from a co-ed service fraternity at a Midwestern University. The sample size was small and the students varied in demographics, though the sample was mostly female. The Student Stress Survey was based on the Student Stress Scale (Insel, & Roth, 1985), the Taylor Manifest Anxiety Scale (Taylor, 1953) and other factors identified as potentially stressful. Further the SSS was divided into four categories of potential stress: academic, environmental, intrapersonal, and social. 40 potential stressful situations were described (6 interpersonal, 16 intrapersonal, 8 academic and 10 environmental). The participants checked which stresses they had experienced. The average respondent had experienced 16.5 of 40 items. The study found that the most frequently reported stress was day to day intrapersonal stress; 38% were intrapersonal, 28% were environmental, 19% were interpersonal, and 15% were academic (Ross et al.,1999). Further of the intrapersonal stressors reported, 100% were daily struggles not major events and 81.1% of all identifies stressors were daily struggles (Ross et al.,1999). The study concluded that the top five sources of stress for college students were change in sleeping habits, vacations/breaks, increased workload and new responsibilities (Ross et al.,1999). Because the survey was distributed in the Spring Semester, during which time students were planning spring breaks, vacations/breaks as one of the top stressors may need to be re-evaluated. The five least frequently reported stressors were death of a friend, severe injury, transferring school, engagement or marriage and divorce. The discussion of this article notes the importance of
identifying sources of stress in students’ lives to be able to create successful and helpful stress management programs at universities.

The introduction to the article cites the study by D’Zurilla & Sheedy (1991) which showed that college students, freshmen in particularly, are a population which is highly vulnerable to stress. As discussed previously, Towbes & Cohen (1996) conducted a study which showed that this is due to the transitional nature of college life (Ross et al., 1999). Another important study cited by Ross et al. is Romano (1992) which notes that stress is a result of the interaction between stressors and the perception and reaction an individual has to the stressors. D’Zurilla & Sheedy (1991) elaborate upon this idea by noting an individual’s coping abilities for stressful events and situations may influence the amount of stress and individual experiences (Ross et al., 1999).

The study by Misra, McKean, West, & Russo (2000) examined stress experience by college students as perceived by both faculty and students. Using two forms of Gadzella's Student-life Stress Inventory (SLSI) (1991), and students’ academic stress and reactions to this stress were measured. 249 students and 67 professors from a state university in Missouri completed the surveys. The results showed that stress in students was often caused by pressure or self-imposed stress (Misra et al., 2000). With regards to gender, girls reported higher stress as a result of frustration, self-imposed stress, and pressure (Misra et al., 2000). There was also a statistically significant difference in self-imposed stress with girls reporting significantly higher scores than boys (Misra et al., 2000). The authors cite Allen & Hiebert (1991) who found that girls report having been affected by negative events more often than boys. Further, the authors cite Davidson-Katz (1991) which notes that boys are frequently not socialized to be as expressive of emotion which could be perceived as weak or not masculine. The study also found that faculty perceptions of student stress were often higher than the perceptions of the students themselves, especially for stress caused by frustration and pressure. Another important finding is that female faculty members and students scored higher for self-imposed stress. This shows that females have more self-imposed stress and female faculty also perceive female students to have higher self-imposed stress (Misra et al., 2000). Finally, the study also examined year in university although no statistically significant relationship arose. First year undergraduate students showed higher emotional, behavioral, and physiological reactions to stress (Misra et al., 2000). Also, first year students noted stress due to change and conflicts, while seniors noted more self-imposed stress and stress due to pressure (Misra et al., 2000). The authors explain this finding as differences in coping behavior and social support which regulate the effects of stress (Allen & Hiebert, 1991; Rawson, Bloomer & Kendall, 1994; Wohlgemuth & Betz, 1991; as cited in Misra et al., 2000).

Dusselier, Dunn, Wang, Shelley II, and Whalen (2005) conducted a study to examine predictors of stress in residence hall students. This study begins very helpfully with a definition of stress as defined by Dr. Hans Selye, an expert in the field. Dr. Selye defines stress as a mechanism of any internal or external demand made upon the body, physical or emotional (Dusselier et. al., 2005). The authors acknowledge previous research which depicts a relationship between stressful life events and poor health-related quality of life among college students as well as a relationship between prolonged stress and disease. In this study selected personal, health, academic and environmental predictors of stress were evaluated in 964 undergraduate students at a Midwestern university. Students were administered a survey online in November which measured attitudes
about residence hall life and also students’ perception of health and personal issues influence in their lives. Results showed that gender and citizenship played a role in self-reported stress with women and US citizens reporting more stress (Dusselier et. al., 2005). They also found that although cumulative GPA was not associated with stress, number of class hours was. The authors concluded that it is workload not ability which may increase stress. The study also showed that conflict with a faculty member was the strongest predictor of student stress. Students who could not study in their residence halls and had roommate conflicts also had higher stress (Dusselier et. al., 2005).

These studies can all be used to ensure that students at universities and colleges nationwide are provided with the appropriate resources for stress. One group which strives to do so is the American College Health Association promotes the delivery and support of health care, prevention and wellness services at colleges and universities for the 18 million students across the country (Reference Group Executive Summary Spring 2010). The ACHA developed the National College Health Assessment to survey students across the country to investigate healthy and unhealthy behaviors, perceptions and trends (Reference Group Data Report (Abridged) 2009). This instrument was developed in 2000 and used through the spring of 2008. The ACHA-NCHA created the largest known comprehensive data set on the health of college students, providing the college health and higher education fields with invaluable information on student health (Reference Group Executive Summary Spring 2010). The instrument was then revised. The NCHA II maintained the same categories of investigation but many questions were added or modified. However, after this revision comparing responses from spring 2008 or prior to newly collected responses is no longer possible. Georgetown University participated in this study during the spring of 2008 and spring of 2010. However, since these two collections used different editions of the survey, they cannot be compared and only trends from spring 2008 will be discussed in this paper. Data from Georgetown University can be compared against the general trends discovered from the nationwide sample collectively. This paper focuses on the novel examination of student responses to questions on stress, anxiety and depression with regard to year in school and race. Prior to this study, the data from GU spring 2008 had never been analyzed or investigated in this way.

In spring 2008, 106 campuses of various sizes across the country self-selected to participate in the survey. Demographic information revealed that when asked how many hours a week students worked for pay or as volunteers, 18.6% reported working 1–9 hours, 19.6% reported working 10–19 hours a week for pay, and 21.8% reported working 20 hours or more a week for pay (Reference Group Data Report (Abridged) 2009). 35.2% volunteered 1–9 hours a week, 2.9% volunteered 10–19 hours a week and 1.0% volunteered 20 hours or more a week (Reference Group Data Report (Abridged) 2009). Other demographics for the national sample are reported below in Table 1 (Reference Group Data Report (Abridged) 2009).
Notably, results of the survey indicated that stress was the number one health impediment to academic performance, affecting 33% of the sample (37.5% of females and 27.2% of males). Stress was followed by cold/flu/sore throat, sleep difficulties, concern for troubled friend or family member, internet use/computer game, depression/anxiety disorder/SAD and relationship difficulty. A further breakdown of the responses of the national sample are shown below (Reference Group Report Spring 2008).
When asked to describe their general health status, 91.9% of students said good, very good, or excellent; 6.9% said fair; and 1.0% said poor (Reference Group Data Report (Abridged) 2009). Further, 62.3% of students described their health as excellent or very good (Reference Group Executive Summary Spring 2008). When asked about depression 14.9% of students reported a diagnosis during their lifetime. Of these, 32% reported being diagnosed in the past school year, 24.5% reported being currently in therapy for depression, and 35.6% reported currently taking medication for depression (Reference Group Data Report (Abridged) 2009). Table 17 below shows students’ experience with other mental health difficulties (Reference Group Data Report (Abridged) 2009).

Based on the trends observed in the larger spring 2008 sample, the Georgetown University sample will be examined by year in university, race and gender and their relationship to stress in the collegiate atmosphere.

**Hypotheses**

Based on the existing body of literature on stress in the collegiate atmosphere, it was hypothesized that in the Georgetown University Spring 2008 sample measures which indicate levels of stress will be highest in first and fourth year students. Additionally, it was expected that female students would express more feelings of stress than male students.
Methods

Participants

The ACHA-NCHA was completed by over 80,000 students across the nation during Spring 2008. Of those students, 1048 student responses were from Georgetown University. This sample was approximately 60% female and 40% male. Participants in the group self-identified as 76.4% white, 4.8% black, 6.5% Hispanic, 12.8% Asian, 0.7% Indian and 3.4% other. 27.2% of the sample were first year undergraduates, 25.5% were second year undergraduates, 22.9% were third year undergraduates and 20.8% were fourth year undergraduates.

Measures

The ACHA-NCHA can be viewed in its entirety in appendix A. The survey is divided up into several categories: Health, Health Education and Safety; Alcohol, Tobacco and Drugs; Sex Behavior, Perceptions and Contraception; Weight, Nutrition and Exercise; Mental and Physical Health; Impediments to Academic Performance; and Demographic Characteristics. The 58 item questionnaire was composed of multiple choice questions for completion; there were no open ended questions. A random sample of Georgetown University students from all four classes were sent an email with a link to complete the assessment online.

Results

Statistics

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Frequency Tables

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**Indian**

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### Volunteer

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<td>46.8%</td>
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<td>0.9%</td>
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<table>
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<tr>
<th></th>
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<th>1-2 times</th>
<th>3-4 times</th>
<th>5-6 times</th>
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<td>4.9%</td>
</tr>
<tr>
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</table>
Within the last school year, have you often felt overwhelmed by all you had to do?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>1-2 times</th>
<th>3-4 times</th>
<th>5-6 times</th>
<th>7-8 times</th>
<th>9-10 times</th>
<th>11 or more times</th>
</tr>
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<td>14.8%</td>
<td>16.3%</td>
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<td>13.8%</td>
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<tr>
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<td>6.1%</td>
<td>13.7%</td>
<td>16.3%</td>
<td>17.5%</td>
<td>10.3%</td>
<td>7.2%</td>
<td>28.9%</td>
</tr>
<tr>
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<td>12.5%</td>
<td>14.2%</td>
<td>12.1%</td>
<td>14.6%</td>
<td>9.6%</td>
<td>32.1%</td>
</tr>
<tr>
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<td>18.8%</td>
<td>17.4%</td>
<td>14.7%</td>
<td>6.9%</td>
<td>7.3%</td>
<td>28.0%</td>
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</table>

Within the last school year, have you felt exhausted (not from physical activity)?

<table>
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<tr>
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<th>1-2 times</th>
<th>3-4 times</th>
<th>5-6 times</th>
<th>7-8 times</th>
<th>9-10 times</th>
<th>11 or more times</th>
</tr>
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<tbody>
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<td>15.4%</td>
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<tr>
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<td>16.7%</td>
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<td>9.1%</td>
<td>7.6%</td>
<td>33.0%</td>
</tr>
<tr>
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<td>11.7%</td>
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<td>10.8%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Fourth year</td>
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<td>13.9%</td>
<td>7.4%</td>
<td>5.1%</td>
<td>31.0%</td>
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</table>
Within the last school year, have often have you felt very sad

<table>
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<th>3-4 times</th>
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<th>9-10 times</th>
<th>11 or more times</th>
</tr>
</thead>
<tbody>
<tr>
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<td>18.3%</td>
<td>35.6%</td>
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<td>5.3%</td>
<td>5.3%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Second year</td>
<td>21.4%</td>
<td>34.7%</td>
<td>16.4%</td>
<td>10.3%</td>
<td>6.1%</td>
<td>3.4%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Third year</td>
<td>18.0%</td>
<td>29.3%</td>
<td>17.6%</td>
<td>10.5%</td>
<td>7.1%</td>
<td>3.8%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Fourth year</td>
<td>21.7%</td>
<td>30.4%</td>
<td>14.7%</td>
<td>9.2%</td>
<td>4.6%</td>
<td>6.0%</td>
<td>13.4%</td>
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Within the last school year, have often have you felt so depressed it was difficult to function

<table>
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<th>Never</th>
<th>1-2 times</th>
<th>3-4 times</th>
<th>5-6 times</th>
<th>7-8 times</th>
<th>9-10 times</th>
<th>11 or more times</th>
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<tbody>
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<td>63.0%</td>
<td>17.3%</td>
<td>7.4%</td>
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<td>3.5%</td>
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<tr>
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<td>1.9%</td>
<td>2.3%</td>
<td>2.3%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Third year</td>
<td>60.0%</td>
<td>18.3%</td>
<td>5.8%</td>
<td>3.3%</td>
<td>3.3%</td>
<td>2.1%</td>
<td>7.1%</td>
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<tr>
<td>Fourth year</td>
<td>67.3%</td>
<td>17.8%</td>
<td>3.3%</td>
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<td>1.4%</td>
<td>1.9%</td>
<td>4.2%</td>
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<tr>
<td>Considering your age, how would you describe your general health</td>
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<td>Experienced but did not affect academics</td>
<td>Lower grade on assignment</td>
<td>Lower grade in class</td>
<td>Incomplete or dropped class</td>
<td></td>
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<tr>
<td><strong>First year</strong></td>
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<td>50.7%</td>
<td>19.7%</td>
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<td><strong>Third year</strong></td>
<td>16.3%</td>
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<td>9.6%</td>
<td>0.8%</td>
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<tr>
<td><strong>Fourth year</strong></td>
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<td>58.7%</td>
<td>20.2%</td>
<td>5.0%</td>
<td>0.9%</td>
<td></td>
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</tr>
</tbody>
</table>

**Discussion**

The descriptives give a comprehensive overview of the demographic makeup of the sample. The demographics of the Georgetown sample match very closely with the gender, race, sexual orientation, year in university and relationship status of the national sample.

Unseen limitations only allowed for analysis of specific questions by year in university not race or gender. Students’ ratings of their own general health were analyzed by year. This revealed that 70.9% of the first year students rate their health as excellent or very good as compared to 73.7% of second years, 69.5% of third years and 72.9% of fourth year students. From these results it can be seen that the lowest general health ratings of excellent or very good are found in undergraduate years one and three. This finding for first year undergraduates accords with the hypothesis that first year students experience significantly more stress than second and third year students. The greater stress among first year students may be related to the findings of Ross et al. (1999) which named sleeping habits, vacations/breaks, change in eating habits, increased workload and new responsibilities as the top stressors for students (Ross et al., 1999). In the first year it is likely that a student encounters all five stressors. However, the lower rating for the third year students was not predicted. 94.1% of first years, 94% of second years, 95.4% of third years and 96.8% of fourth year students rated their health as good or better. There is a slight increase in the overall rating of general health with each year. This may be indicative of the relationship between increased coping mechanisms and decreased stress as suggested in the study by D’Zurilla & Sheedy (1991).
Students were also asked how many times within the past school year they felt hopeless, overcome by all they had to do, exhausted (but not from physical activity), very sad, so depressed that it was difficult to function, had seriously considered suicide and attempted suicide. Results show that first year undergraduates reported feeling hopeless at least once, more than second year, third year, or fourth year students (61.8%). This again supports the hypothesis that first year students have the highest levels of stress and possibly the least developed coping mechanisms to handle stress (D’Zurilla & Sheedy, 1991). Among third year students, 54% reported feelings of hopelessness at least once. Among fourth year students 55% reported feeling hopeless at least once during the past year. Again, this finding contradicts the proposed hypothesis that fourth year undergraduate students are more stressed than students in other years. When looking at year in school and the question of whether or not students felt overwhelmed, results showed that students responded to feeling overwhelmed more than hopeless. Of those who responded to never feeling overwhelmed in the past school year 6.4% were first year undergraduates, 6.1% were second years, 5% were third years and 6.9% were fourth years. Further, those who responded to feeling overwhelmed 11 or more times in the past year were 21.9% of first year undergraduates, 28.9% of second years, 32.1% of third years and 28% of fourth years. This indicates that third year students feel the most overwhelmed, which is again inconsistent with the hypotheses. These results may be due to differences in interpretation of the meaning of the word overwhelmed. The time at which the survey was administered may also have mattered. For example, if it were at the very beginning of the semester during which time first year students have not yet received much work and fourth year students are looking forward to their last year, it would make sense that second and third year students felt more overwhelmed as they are more accustomed to the workload than first year students and still have more years of school ahead unlike fourth year students. The survey was emailed out in February however, but the date on which students completed it was variable.

The next question asked was how many times in the past year a respondent felt exhausted (not from physical activity). 42.5% of first year students, 49.7% of second year students, 48.6% of third year students, 43.5% of fourth year students reported feeling exhausted 7 or more times which appears to contradict the hypothesis of first and fourth year students have more stress. However, 22.5% of first year undergraduates, 33% of second year undergraduates, 27.9% of third year undergraduates, and 31% of fourth year undergraduates reported that feeling 11 or more times. This finding supports the hypothesis that fourth year students may experience more stress than other years but still contradicts the hypothesis the first year students may experience more stress.

When asked about feeling very sad in the last school year 32.5% of first year students, 27.4% of second year students, 35.2% of third year students, 33.2% of fourth year students reported experiencing this 5 or more times. This finding does not necessarily support or deny the hypothesis that first and fourth year students experience the most stress. Sadness and stress may not necessarily be linked. Further when asked about being so depressed it was difficult to
function, 63% of first year students, 60.6% of second year students, 60% of third year students and 67.3% of fourth year students responded never. This is in line with the idea that coping mechanisms and methods to deal with challenges increase over time. Again these negative feelings may be linked to students’ development of appropriate coping mechanisms (D’Zurilla & Sheedy, 1991) and strategies to deal with stressful events.

The effect of stress on academic performance was examined by year in university. Of first year undergraduates 22.9% did not experience stress, 50.7% experienced stress but it did not affect academics, 19.7% received a lower grade on an assignment, 5.6% received a lower grade in the class, 1.1% received an incomplete or dropped the class. Of second year undergraduates 15% did not experience stress, 53.4% experienced stress but it did not affect academics, 24.8% received a lower grade on an assignment, 5.6% received a lower grade in the class, and 1.1% received an incomplete or dropped the class. Of third year undergraduates 16.3% did not experience this, 50.2% experienced stress but it did not affect academics, 23% received a lower grade on an assignment, 9.6% received a lower grade in the class, and 0.8% received an incomplete or dropped the class. Of fourth year undergraduates 15.1% did not experience this, 58.7% experienced stress but it did not affect academics, 20.2% received a lower grade on an assignment, 5% received a lower grade in the class, and 0.9% received an incomplete or dropped the class. These results showed that third year students exhibited higher percentages of stress affecting academic performance and causing the student to receive a lower grade in a class than first, second, or fourth year students. Also, second and fourth year students had the lowest percentages of students who did not experience stress, meaning that these students in these years experienced more stress. However, fourth year undergraduates had the highest percentage of experienced stress that did not impact academic performance. Perhaps this suggests that although the final undergraduate year is stressful, students have become more adept at dealing with this stress and preventing it from negatively impacting other areas of a student’s life. As shown in Dusselier et al., (2005) these findings may also relate to number of class hours a student has for his or her workload.

All of these descriptives are important for identifying trends among students in the different years in the university. While some results did support the hypothesis that first and fourth year undergraduate students have the most stress, the results which contradicted the hypothesis could indicate that stress affects students in different years in university differently. The results were inconclusive. However, further analysis must be done to identify significant relationships and predictions.

Conclusion

This study has shown that year in university does affect a student’s experience of stress. Some analysis of the measures of the ACHA-NCHA did support the hypotheses while others did not. These mixed findings indicate the need for more in-depth analysis. Based on the trends shown in the descriptive data and frequencies from the Georgetown University sample from spring 2008,
the next step would be to look only at full time students in 1st, 2nd, 3rd or 4th year of undergraduate. This could change the results because the workloads and responsibilities vary for full-time and part-time students. The three factors to be analyzed would again be year in university, but the survey should be expanded in order to include factors such as race and gender. As shown in previous research, women tend to perceive more stress than men (Towbes & Cohen, 1996; Hamilton & Fagot, 1988; Misra et. al., 2000). Therefore it is essential to include this variable in analysis. There is also significantly less information on stress in a collegiate atmosphere in minority populations.

It is important to note the limitations of this study. University populations although helpful to analyze as a group, can be diverse. It is not possible for one standard instrument to cover all of the various factors of stress. For example, perhaps the workload and academic hours are significantly more demanding at an Ivy League school which could cause high stress (Dusselier et al., 2005) yet the commute to school and job stress may be higher for a student at a community college. Dusselier et al. (2005) also shows the importance of student living situation. Also Georgetown University is a unique environment with its own specific set of stresses for the student body. While very worthwhile to use the ACHA-NCHA to evaluate the stress climate against a national sample, it is still critical to investigate any factors specific to the school as well.

Further research must also be conducted with the spring 2010 data from Georgetown. Again, the assessment tool was changed between its use in spring 2008 and spring 2010 so no direct comparisons can be made. However, it is still important for analysis to be done on this data to further examine trends involving year in university, race and gender on stress. Based on these findings, the same questions discussed in this conclusion must be analyzed to see how the Georgetown sample compares to the national sample. The relationship between year in university, race, gender and stress is very important in understanding how to best provide services and assistance for students in the collegiate atmosphere. This paper reports on primary descriptive data and suggests further analysis into this critical relationship.
References


Appendix A

American College Health Association

National College Health Assessment

Instructions:

The following questions ask about various aspects of your health.

To answer the questions, fill in the oval that corresponds to your response.

Select only one response unless instructed otherwise.

Use a No. 2 pencil or blue or black ink pen only. Do not use pens with ink that soaks through the paper.

This survey is completely voluntary. You may choose not to participate or not to answer any specific question. You may skip any question you are not comfortable in answering.

This survey is completely anonymous. Please make no marks of any kind on the survey which could identify you individually.

Composite data will then be shared with your campus for use in health promotion activities.

Thank you for taking the time and thought to complete this survey.
We appreciate your participation!
The first 8 questions ask about health, health education, and safety.

1. Considering your age, how would you describe your general health?
   - Excellent  - Very good  - Good  - Fair  - Poor  - Don't know

2. On which of the following health topics have you ever received information from your college or university? (Select all that apply)
   - Tobacco use prevention
   - Alcohol and other drug use prevention
   - Sexual assault/relationship violence prevention
   - Violence prevention
   - Injury prevention and safety
   - Suicide prevention
   - Pregnancy prevention
   - AIDS or HIV infection prevention
   - Sexually transmitted disease (STD) prevention
   - Dietary behaviors and nutrition
   - Physical activity and fitness
   - None of the above

3. Use the scale below to record the believability of each source of health information.
   - Unbelievable
   - Neither believable nor unbelievable
   - Believable

(Please mark the best response for each question to the right)
- Brochures, pamphlets, flyers
- Campus newspaper articles
- Health center medical staff
- Health educators
- Friends
- Resident assistants/advisors
- Parents
- Religious center
- Television
- Magazines
- Campus peer educators
- Faculty/coursework
- Internet/world wide web
- Other: (please specify)

4. Do you usually get health-related information from any of the following sources?

5. Within the last school year, how often did you:
   (Please mark the appropriate column for each row)
   - Wear a seatbelt when you rode in a car?
   - Wear a helmet when you rode a bicycle?
   - Wear a helmet when you rode a motorcycle?
   - Wear a helmet when you were inline skating?
   - N/A didn't do this within the last school year

6. Within the last school year, were you:
   - In a physical fight?
   - Physically assaulted (do not include sexual assault)?
7. Within the last school year, have you experienced:
   - Verbal threats for sex against your will?
   - Sexual touching against your will?
   - Attempted sexual penetration (vaginal, anal, oral intercourse) against your will?
   - Sexual penetration (vaginal, anal, oral intercourse) against your will?

8. Within the last school year, have you been in a relationship that was:
   - Emotionally abusive?
   - Physically abusive?
   - Sexually abusive?

The next 11 questions ask about alcohol, tobacco, and drugs.

9. Within the last 30 days, on how many days did you use: (Mark one for each row)

<table>
<thead>
<tr>
<th>Cigarettes</th>
<th>Cigars</th>
<th>Smokeless tobacco</th>
<th>Alcohol (beer, wine, liquor)</th>
<th>Marijuana (pot, hash, hash oil)</th>
<th>Cocaine (crack, rock, freebase)</th>
<th>Amphetamines (diet pills, speed, meth, crank)</th>
<th>Rohypnol (roofies), GHB or Liquid X (intentional use)</th>
<th>Other drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
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<table>
<thead>
<tr>
<th>3-5 days</th>
<th>6-9 days</th>
<th>1-2 days</th>
<th>10-19 days</th>
<th>20-29 days</th>
<th>All 30 days</th>
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10. Within the last 30 days, how often do you think the typical student at your school used: State your best estimate. (Mark one for each row)

<table>
<thead>
<tr>
<th>Cigarettes</th>
<th>Cigars</th>
<th>Smokeless tobacco</th>
<th>Alcohol (beer, wine, liquor)</th>
<th>Marijuana (pot, hash, hash oil)</th>
<th>Cocaine (crack, rock, freebase)</th>
<th>Amphetamines (diet pills, speed, meth, crank)</th>
<th>Rohypnol (roofies), GHB or Liquid X (intentional use)</th>
<th>Other drugs</th>
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<tbody>
<tr>
<td>Used daily</td>
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<td>One or more days</td>
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<th>3-5 days</th>
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<th>All 30 days</th>
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One drink or alcoholic beverage is defined as a 12 oz. beer, a 4 oz. glass of wine, a shot of liquor, or a mixed drink.

11. Within the last 30 days, did you:
   - Drive after drinking any alcohol at all
   - Drive after having 5 or more drinks

Yes
   - Not applicable/Don't drink
   - Not applicable/Don't drive

12. The last time you "partied"/socialized, how many hours did you drink alcohol?
   State your best estimate. (If less than 10, code answers as 00, 01, 02, etc.)

<table>
<thead>
<tr>
<th>HOURS</th>
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13. The last time you "partied"/socialized, how many alcoholic drinks did you have? State your best estimate. (If less than 10, code answers as 00, 01, 02, etc.)

<table>
<thead>
<tr>
<th>DRINKS</th>
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</table>
14. In the last two weeks, on how many occasions did you drink the same or more alcohol as indicated in Item #13? State your best estimate. (If less than 10, code answers as 00, 01, 02, etc.)

15. How many alcoholic drinks do you think the typical student at your school had the last time he/she 'partied'/socialized? (If less than 10, code answers as 00, 01, 02, etc.)

16. Think back over the last two weeks. How many times, if any, have you had five or more alcoholic drinks at a sitting?

- None
- 2 times
- 4 times
- 6 times
- 8 times
- 10 times
- 12 times
- 14 times
- 16 times
- 18 times
- 20 times

(Please mark the appropriate column for each row)

17. During the last school year, if you 'partied'/socialized, how often did you...
- Alternate non-alcoholic with alcoholic beverages
- Determine, in advance, not to exceed a set number of drinks
- Choose not to drink alcohol
- Use a designated driver
- Eat before and/or during drinking
- Have a friend let you know when you've had enough
- Keep track of how many drinks you were having
- Pace your drinks to 1 or fewer per hour
- Avoid drinking games
- Drink an alcohol look-alike (non-alcoholic beer, punch etc.)

(Please mark the appropriate column for each row)

18. If you drink alcohol, within the last school year, have you experienced any of the following as a consequence of your drinking?
- Physically injured yourself
- Physically injured another person
- Been involved in a fight
- Did something you later regretted
- Forgot where you were or what you did
- Had someone use force or threat of force to have sex with you
- Had unprotected sex

19. Within the last 30 days, what percent of students at your school used? State your best estimate.
The next 11 questions ask about sex behavior, perceptions, and contraception.

20. Within the last school year, with how many partners, if any, have you had sex (oral, vaginal, or anal)? (If less than 10, code answers as 00, 01, 02, etc.)

21. Within last school year, were your sexual partner(s), if any,
- N/A
- Female
- Male
- Both Male and Female

(Please mark the appropriate column for each row)

22. Within the last school year, with how many partners do you think the typical student at your school has had sex (oral, vaginal, or anal)? (If less than 10, code answers as 00, 01, 02, etc.)

(Please mark the appropriate column for each row)

23. Within the last 30 days, if you are sexually active, how many times did you have:
- Oral sex?
- Vaginal intercourse?
- Anal intercourse?

(Please mark the appropriate column for each row)

24. How many times within the last 30 days do you think the typical student at your school has had:
- Oral sex?
- Vaginal intercourse?
- Anal intercourse?

(Please mark the appropriate column for each row)

25. Within the last 30 days, if you are sexually active, how often did you or your partner(s) use a condom during:
- Oral sex?
- Vaginal intercourse?
- Anal intercourse?

(Please mark the appropriate column for each row)

26. Within the last 30 days, how often do you think the typical student at your school has used a condom during:
- Oral sex?
- Vaginal intercourse?
- Anal intercourse?

(Please mark the appropriate column for each row)

CONDOM USE

The typical student at my school does not participate in this sexual activity

Never
Rarely
Sometimes
Mostly
Always

CONDOM USE
27. If you are sexually active, did you use a condom the last time you had:

- Oral sex?
- Vaginal intercourse?
- Anal intercourse?

28. If you have had vaginal intercourse, what method did you or your partner use to prevent pregnancy the last time? (Select all that apply)

- Have not had vaginal intercourse
- Spermicide (e.g. foam)
- Birth control pills
- Depo Provera (shots)
- Norplant (implant)
- Condoms (male or female)
- Diaphragm/Cervical cap/Sponge
- Fertility awareness
- Basal body temperature
- Other method
- Nothing

29. Within the last school year, if you are sexually active, have you or your partner(s) used emergency contraception ("morning after pill")?

- No
- Yes
- Don’t know
- Not sexually active

30. Within the last school year, have you unintentionally become pregnant or gotten someone else pregnant?

- No
- Yes
- Don’t know

31. Have you ever been tested for HIV infection?

- No
- Yes
- Don’t know

32. Which of the following best describes you?

- Heterosexual
- Homosexual
- Bisexual
- Transgendered
- Unsure

33. If you have a credit card(s), how much total credit card debt did you carry last month? That is, what was the total unpaid balance on all of your credit card(s) that you are responsible for paying?

- $0
- $1 - $99
- $100 - $249
- $250 - $499
- $500 - $999
- $1,000 - $1,999
- $2,000 - $2,999
- $3,000 - $3,999
- $4,000 - $4,999
- $5,000 - $5,999
- $6,000 or more

34. What is your approximate cumulative grade average?

- A
- B
- C
- D/F
- N/A

35. How do you describe your weight?

- Very underweight
- Slightly underweight
- About the right weight
- Slightly overweight
- Very overweight

36. Are you trying to do any of the following about your weight?

- Lose weight about my weight
- Gain weight
- Stay the same weight
- I am not trying to do anything

37. Within the last 30 days, did you do any of the following? (Select all that apply)

- Exercise to lose weight
- Diet to lose weight
- Vomit or take laxatives to lose weight
- Take diet pills to lose weight
- I didn’t do any of the above

38. How many servings of fruits and vegetables do you usually have per day? (1 serving = 1 medium piece of fruit, 1/2 cup of chopped, cooked or canned fruits/vegetables, 3/4 cup of fruit/vegetable juice, 1 cup of salad greens, or 1/2 cup of dried fruit)

- I don’t eat fruits and vegetables
- 0-1
- 2-3
- 4-5
- 6-7
- 8-9
- 10 or more

39. On how many of the past 7 days did you:

- Participate in vigorous exercise for at least 20 minutes or moderate exercise for at least 30 minutes?
- Do exercises to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?
- Get enough sleep so that you felt rested when you woke up in the morning?

(Please mark the appropriate column for each row)
### The next 4 questions ask about mental and physical health.

(Please mark the appropriate column for each row)

#### 40. Within the last school year

<table>
<thead>
<tr>
<th>felt things were hopeless</th>
<th>felt overwhelmed by all you had to do</th>
<th>felt exhausted (not from physical activity)</th>
<th>felt very sad</th>
<th>felt so depressed that it was difficult to function</th>
<th>seriously considered attempting suicide</th>
<th>attempted suicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6 times</td>
<td>3-4 times</td>
<td>1-2 times</td>
<td>9-10 times</td>
<td>11 or more times</td>
<td></td>
<td></td>
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</tbody>
</table>

#### 41. Have you ever been diagnosed with depression?

- Yes
- No

(If you responded "no," please go to question 42)

If Yes: Have you been diagnosed with depression within the last school year?

- Are you currently in therapy for depression?
- Are you currently taking medication for depression?

(Please mark the appropriate column for each row)

#### 42. Have you:

- Been vaccinated against hepatitis B?
- Been vaccinated against meningococcal disease (meningococcal meningitis)?
- Been vaccinated against varicella (chicken pox)?
- Been vaccinated with measles, mumps, rubella (2 shots)?
- Been vaccinated against influenza (the flu) in the last year?
- Had a dental exam and cleaning in the last year?
- (Males) Performed testicular self exam in the last month?
- (Females) Performed breast self exam in the last month?
- (Females) Had a routine gynecological exam in the last year?
- Had your blood pressure checked in the last 2 years?
- Had your cholesterol checked in the last 5 years?
- Used sunscreen daily?

Don't Know
- Yes
- No

Don't Know
- Yes
- No

#### 43. Have you ever been diagnosed with any of the following?

<table>
<thead>
<tr>
<th>within the last school year</th>
<th>within the last school year</th>
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</thead>
<tbody>
<tr>
<td>Allergy problems</td>
<td>Repetitive stress injury</td>
</tr>
<tr>
<td>Anorexia</td>
<td>(e.g. carpal tunnel syndrome)</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>Seasonal Affective Disorder</td>
</tr>
<tr>
<td>Asthma</td>
<td>Substance abuse problem</td>
</tr>
<tr>
<td>Bulimia</td>
<td>Back pain</td>
</tr>
<tr>
<td>Chronic Fatigue Syndrome</td>
<td>Broken bone/ fracture</td>
</tr>
<tr>
<td>Depression</td>
<td>Bronchitis</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Chlamydia</td>
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<tr>
<td>Endometriosis</td>
<td>Ear infection</td>
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<tr>
<td>Genital herpes</td>
<td>Gonorrhea</td>
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<tr>
<td>Genital warts/HPV</td>
<td>Mononucleosis</td>
</tr>
<tr>
<td>Hepatitis B or C</td>
<td>Pelvic Inflammatory Disease</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>Sinus Infection</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>Strep throat</td>
</tr>
<tr>
<td>HIV Infection</td>
<td>Tuberculosis</td>
</tr>
</tbody>
</table>

Have you ever been diagnosed with any of the following?

- Yes
- No

Have you ever been diagnosed with any of the following?

- Yes
- No
### The next question asks about impediments to academic performance.
- Received an incomplete or dropped the course
- Received a lower grade in the course
- I have experienced this issue but my academics have not been affected
This did not happen to me/not applicable

**44. Within the last school year, have any of the following affected your academic performance?**
- Alcohol use
- Allergies
- Assault (physical)
- Assault (sexual)
- Attention Deficit Disorder
- Cold/Flu/Sore throat
- Concern for a troubled friend or family member
- Chronic illness (diabetes, asthma, etc.)
- Chronic pain
- Death of a friend or family member
- Depression Anxiety Disorder
- Seasonal Affective Disorder
- Drug use
- Eating disorders
- HIV Infection
- Injury
- Internet use/computer games
- Learning disability
- Mononucleosis
- Pregnancy (yours or your partner's)
- Relationship difficulty
- Sexually transmitted disease
- Sinus infection
- Infection/bronchitis/strep throat
- Sleep difficulties
- Stress
- Other

### The last questions ask about demographic characteristics.

**45. How old are you?**

**46. What is your sex?**
- Female
- Male

**47. What is your height in feet and inches?**

**48. What is your weight in pounds?**

**49. Year in school:**
- 1st year undergraduate
- 2nd year undergraduate
- 3rd year undergraduate
- 4th year undergraduate
- 5th year or more undergraduate
- Graduate or professional
- Adult special
- Other

**50. Are you a full-time student?**
- Yes
- No

**51. How do you usually describe yourself?**
- White - not Hispanic
- Black - not Hispanic
- Hispanic or Latino
- Asian or Pacific Islander
- American Indian or Alaskan Native
- Other

**52. Are you an international student?**
- Yes
- No

**53. What is your current relationship status?**
- Single
- Married/domestic partner
- Engaged or committed dating relationship
- Widowed

**54. Where do you currently live?**
- Campus residence hall
- Off-campus housing
- Fraternity or sorority house
- Parent/guardian's home/housing
- Other university/college

**55. Are you a member of a social fraternity or sorority?**
- Yes
- No

**56. How many hours a week do you work for pay?**
- 0 hours
- 5-10 hours
- 10-15 hours
- 15-20 hours
- 20-25 hours

**57. How many hours a week do you volunteer?**
- 0 hours
- 5-10 hours
- 10-15 hours
- 15-20 hours

**58. Do you have any kind of health insurance (including prepaid plans such as HMOs - health maintenance organizations)?**
- Yes
- No
- Not sure

---

**PAGE EIGHT**

THANK YOU FOR COMPLETING THIS SURVEY

Please do not write in this area

SERIAL #