A Quantitative Study of the Source of Stress for First Generation Freshman Female College Students

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A Quantitative Study of the Source of Stress for
First Generation Freshman Female College Students

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BY
Amber Byrley

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2016

YEAR

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Abstract

This study compared the sources of stress between first-generation and continuing-generation freshman female students, Caucasian and non-Caucasian freshman female students, and straight and non-straight freshman female students. This study was conducted at a rural, Midwestern, four-year, public institution, 101 first time freshman students living in on-campus housing participated in this study. A quantitative study was designed using Higbee and Dwinell’s (1992) Developmental Inventory of the Sources of Stress (DISS) questionnaire which measures stress in five sub-categories including time management, physical lifestyle, academics, interactions, and chemical stressors. Results of the study indicated that overall, first-generation freshman females experience more total stress compared to continuing-generation freshman females and more stress associated with all five sub-categories of the DISS except for academics. Only total stress scores were looked at for the differences in Caucasian and non-Caucasian freshman females in which this study shows that participants identifying as non-Caucasian experience increased levels of stress. The total stress score was also the only score looked at when comparing the differences between straight and non-straight freshman female students. This study showed that participants identifying as non-straight experience increased levels of stress.
Dedication

This research is dedicated to all female college students, especially those who are the first in their family to attend college. I, as a first generation female student found myself confused and disoriented during my first semester of college and was unable to fully understand why. This research was conducted with the hopes to help identify some of the challenges female students might face during the start of their college experience with the hopes that myself and others can help you have an outstanding, developmental, and memorable experience.
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CHAPTER I

Introduction

Based off of both anecdotal experience and research, college students face stressors that can be related externally or internally to their college experience. These stressors can play a negative role on student's well-being and/or academic success and persistence.

College represents a time for individuals to grow and develop, but the adaptation process is complex and dynamic and involves personal and social demands (Bloom, 1975). Although some stress is a necessary and an important part of learning, it can also be harmful to individuals (Whitman, Spendlove & Clark, 1986). Positive stress happens when the situation provides challenge and growth, negative stress (distress) occurs when the situation appears threatening (Whitman et al., 1986). Students who experience moderate stress perform better than those who experience minimum or maximum stress (Whitman et al., 1986).

The relationship of stress with poor health is not a new concept (Lee, Wuertz, Rogers & Chen, 2013). Stress can take a toll on an individual’s health, even more specifically their sleep habits, which can lead to poor academic performance (Lee et al., 2013). When an individual experiences stress they experience changes in their physical well-being (Dixon & Robinson-Kurpius, 2008; Lee et al., 2013). When an individual is "stressed" the sympathetic nervous system is activated, causing physiological changes such as influx of blood to the central locations of the body and head, increased heartbeat and breathing, and the release of stress hormones by the endocrine system (Lee et al., 2013). When the stress response takes place numerous times over a long period it makes
the body more prone to mental and physical illness, thus repeated encounters with stress can be detrimental on an individual’s physical and psychological state (Dixon & Robinson-Kurpius, 2008; Lee et al., 2013).

Stress and depression are major factors that have been related to academic success and persistence of college students (Dixon & Robinson-Kurpis, 2008). College students receive stress from multiple sources which can include, but are not limited to, time constraints, financial strain, academic workload, and interpersonal difficulties with faculty, peers, and significant others (Rocha-Singh, 1994). College students can also experience stress from life events, especially those appearing as undesirable, uncontrollable, and unpredictable (Jackson & Finney, 2002). Without proper guidance through stressful situations students may feel a need to blame themselves, leading to missing future opportunities and inhibiting their life experiences (Jackson & Finney, 2002). Students who are depressed also struggle in their studies, relationships, eating and substance abuse (Grayson & Meilman, 2006).

Suicide is the third leading cause of death among 15-24 year olds, following accidental death and homicides (Barrios, Everett, Simon, & Brener, 2000; Brandt-Brown, 2014). In some situations, college students are faced with academic pressure and other stressors, these factors combined with an inability to cope lead some students to feel a need to drink, do drugs, or end their life (Higbee & Dwinell, 1999).

The spring 2015 National College Health Assessment surveyed over 100,000 students at institutions across the United States (American College Health Association, 2015). Results from the National College Health Assessment show that 23.6 percent of participants reported experiencing overwhelming anxiety in the last two weeks, 19.1
percent reported that they had previously been diagnosed with depression, 42.8 percent reported that they have experienced more than average stress in the last twelve months, and 18.8 percent reported that they have utilized mental health services from their current university (American College Health Association, 2015).

**Purpose of the Study**

The purpose of this study was to gain an understanding of the sources stress in undergraduate freshman female students attending a public four year university in the Midwest United States.

**Research Question**

The following questions guided this study:

RQ #1. Overall, is there a statistically significant difference between first generation freshman females and continuing generation freshmen females in regards to the levels of stress as indicated by the DISS?

RQ #2. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the time management scale as measured by the DISS?

RQ #3. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the physical lifestyle scale of the DISS?

RQ #4. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the chemical stressor scale of the DISS?
RQ #5. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the academic scale of the DISS?

RQ #6. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the interaction scale of the DISS?

RQ #7. Overall, is there a statistically significant difference between White freshman females and non-White freshmen females in regards to the levels of stress as indicated by the DISS?

RQ #8. Overall, is there a statistically significant difference between straight freshman females and non-straight freshmen females in regards to the levels of stress as indicated by the DISS?

**Significance of Study**

This study is of significance because obtaining a college degree comes with many challenges (Struthers, Perry, & Menec, 2000) and there has been an increase in the stress levels of college students (Altschuler, 2000). Academic success is the main reason of most students deciding to attend college, but stress and depression are the two major factors that tend to inhibit the goal of obtaining a degree; increased perceptions of stress increase the likelihood that a student will drop out of college (Dixon & Robinson-Kurpius, 2008). College students who report higher levels stressed compared to their peers experience not being satisfied with their grade point average, lower self-esteem, and partake in unhealthy behaviors (Hudd et al., 2000). Higher stress levels also impact overall health factors such as diet, sleep patterns, and illness (Hudd et al., 2000).
There is also significance to study freshmen female college students and their relation to stress. Females are more likely to report feeling stressed compared to males (Hudd et al., 2000). Freshman are more prone to experiencing stress because of the factors involved in the transition and adjustment into the higher education setting (D'Zurilla & Sheedy, 1991) and the first year of college comes with many stressors that could be detrimental to one’s mental and physical well-being (Hall, Chipperfield, Perry, Ruthing, & Goetz, 2006). Assessing stress is a critical aspect of making sure students have a positive college experience (Feldt & Updegraff, 2013).

**Limitations of Study**

Limitations of this study included the electronic administration of the survey. Participants may not accurately report information in regards to rushing through the survey. A second limitation was the length of the survey, 65 questions divided into five subscales, as participants may get bored and not accurately report information because they are in a rush to finish. Lastly, the institution and participants that will be studied represent a small percentage of freshman females on college campuses.

**Definition of Terms**

**Stress:** Any situation that evokes negative thoughts and feelings in a person (Whitman et al., 1986).

**Distress:** Undesirable stress (Humphrey, 1982).

**Stressor:** Any real or perceived physical, social, or psychological event or stimulus that causes our bodies to react or respond (Humphrey, 1982).

**First generation college students:** Students who are the first in their family to go to college (Phinney & Haas, 2003).
Continuing generation college students: Students whose parents obtained a bachelor’s degree.

Summary
This study investigates the sources of stress for freshman female college students. Chapter I provides an introduction to the study and chapter II will provide a review of relatable literature.
Chapter II

Literature Review

The review of literature covers areas relating to freshmen female undergraduate college students' stress. The areas discussed are: stress, first generation students, and differences relating to ethnicity, sexual orientation, transition, and academics stress.

Stress

Stress is experienced by everyone and can have an impact on the physiological aspects of an individual (Britz & Pappas, 2010). Stress can cause an elevation of blood pressure, headaches, trouble sleeping, inhibit the immune system and have an overall negative impact on an individual's physical, and mental well-being (Britz & Pappas, 2010). Sources of stress for college students come from a wide variety of context such as interpersonal, intrapersonal, and academic and environmental setting (Bulo & Sanchez, 2014; Ross, Niebling, & Heckert, 1999).

In their study, Britz and Pappas (2010) found that 50.8 percent of the 124 participants reported being often or always stressed, with academics, time management, making future plans, and sleep being the top indicated sources of stress. Britz and Pappas (2010) also found that students who reported high levels of stress also reported unhealthy lifestyle habits such as sleeping and eating patterns. Students getting less than seven hours of sleep a night reported increased levels of stress compared to students who got more than seven hours of sleep or more a night (Britz & Pappas, 2010).

Depression has been intensively linked as a result of stress among college students (Dixon & Robinson-Kurpis, 2008). Variables related to depression and stress of college students include overall mental health concerns (Bovier, Chamot, &
Humphrey (1982) had college students respond to the question “what is stress?” Responses included “a lot of tension at one time,” “frustration from doing poorly on an exam,” “the feeling you get when things are not going your way.”

Sources of stress

Sources of stress can vary among individuals; what one perceives as stressful may not be to someone else (Whitman et al., 1986). One of the common stressors of college students is the greater academic demand of the college setting (Kumaraswamy, 2012). Hurst, Baranik, and Daniel (2013) studied the sources of stress of college students using qualitative measures and found eight major categorical themes which included: academics, relationships, lack of resources, expectations of self and from others, environment, transition, diversity, and “other” which included stress related to career, extracurricular activities, and personal appearance.

Ross et al. (1999) conducted a study using the Student Stress Survey to determine the major sources of stress in the lives of college students. From the study Ross et al. (1999) found that of their participants, 38% reported intrapersonal stressors, 28% environmental, 19% interpersonal, and 15% academics. Out of the highest category, interpersonal, change in sleeping habits, vacations/breaks, a change in eating habits, new responsibilities, financial difficulties, change in social activities, and increased class workload were the top reported interpersonal factors of stress (Ross et al., 1999).

Similar to other studies Bland, Melton, Welle, and Bigham (2012) found that the main sources of stress identified as life events reported by students for college students were related to pressure to do well in school, moving, beginning college, and
declaring a major. Sources of stress related to daily hassles were test, lack of sleep, assignment and text messaging (Bland et al., 2012).

Stress and Sexual Orientation

Individuals who are members of a sexual minority are at an increased risk of mental health concerns, including depression, stress, and anxiety, than those who identify as straight (Grant et al., 2014). All college students experience stress but those who identify as gay, lesbian, bisexual, transgender or questioning have additional stressors related to their sexual orientation, especially stress associated with how others view them (Zubenis & Snyder, 2007). Individuals who do not identify as straight are prone to additional stress known as “gay stress” (Lewis, Derlega, Griffin, & Krowinski, 2003). Gay-related stress develops from an array of factors but the thought of being a victim of discrimination plays a vital role in the stress associated with being gay (Lewis et al., 2003). Gay, lesbian, and bisexual individuals with high levels of gay related stress are also more likely to experience depressive symptoms (Lewis et al., 2003). Many of the stresses associate with being a sexual minority can cause individuals to suppress their identity which can lead to anxiety and a misunderstanding of self-concept (Zubenis & Snyder, 2007).

Students of sexual orientation minority are more likely to experience harassment, exclusion, and discrimination compared to their heterosexual peers (Rankin, Blumenfeld, Weber, & Frazer, 2010). Westefeld, Maples, Buford and Taylor (2008) compared college students of sexual minority with heterosexual college students to find differences in the areas of loneliness, depression, and suicidal risk. Students responding to open ended questions, students of a sexual minority responded with concerns related to harassment, discrimination, depression, and suicidal risk. When
compared with heterosexual college students, those of a sexual minority exhibited increased depression, loneliness, and fewer reasons to live (Westefelf et al., 2008).

Diamant and Wold (2003) studied the difference in physical and mental health of heterosexual and homosexual females between the ages of 18-64, and found that females who identified as lesbian recorded higher instances of depression, days of poor mental health, and currently taking medication for depression than heterosexual females.

**Stress and Ethnicity**

There has been an increase of students identifying as ethnic minorities attending universities (Wei, Liao, Chao, Mallinckrodt, Tsai, & Botello-Zamarron, 2010). Student identifying as an ethnic minority may not feel welcomed on college campuses and are prone to experiencing stress due to discrimination (Wei et al., 2010). Racism and discrimination can cause feelings of depression, isolation, anger, anxiety, and disengagement of African American college students is a major factor in the persistence of such students on college campuses (Turner & Smith, 2015). Negga, Applewhite, and Livingston (2007) found that African American students attending predominately White institutions reported higher levels of academic stress and reported low social support. As reported by Ratanasiripong, Burkey, and Ratanasiripong (2009) Latino students reported being more stressed than White students, there were no differences in stress levels between Asian American and Latino students or Asian American and White students was reported.

Students of ethnic minorities may also be prone to additional stressors related to having to work while attend college, financial struggles, time conflicts, academic pressure, and family difficulties (Phinney & Hass, 2003). Being an ethnic minority
may also include stressors associated with trying to make White friends, trying to maintain loyalty to their own ethnic group, racism, low expectations from others, and feeling like they need to prove themselves (Wei et al., 2010).

**First Generation College Students**

First generation students are those who are the first in their family to go to college (Phinney & Haas, 2003) and may not be adequately prepared to succeed in the higher education environment (Mehta, Newbold, & O’Rourke, 2011). First generation college students may not receive adequate amounts of support, personally and financially, from their family because of their lack of experience with the higher education environment (Phinney & Haas, 2003; Mehta et al., 2011). First generation college students are likely to come from low income families, are less involved than continuing generation students, and also have less social and financial support (Mehta et al., 2011). Along with lower grade point averages, first generation college students also reported less satisfaction related to social life and academics (Mehta et al., 2011). Studies have found that 42% of first generation college students reported that their family paid for less than 5% of their college cost while greater than 70% of continuing generation students reported contributing to more than 5% of their college costs (Mehta et al., 2011).

First generation college students bring in important factors that come along with additional stressors as they enter the higher education environment, these factors may lead first generation college students to fail to obtain a college degree (Mahta et al., 2011). When comparing first generation college students and continuing generation college students Pike and Kuh (2005) found that first generation students have lower educational aspirations, were less likely to live on campus, have decreased levels of
academic and social engagement, less desired views of the colligate environment, and lower levels of integration than continuing generation students. Students of ethnic minorities are more likely to be first generation college students (Pike and Kuh, 2005; Penrose, 2002). When comparing first generation and continuing generation college students there was no significant difference between the two populations in regards to academic achievement but did find that first generation college students are more prone to withdraw from college (Penrose, 20002).

Persistence and retention are big factors when discussing first-generation college students. Lohfink and Paulsen (2005) found that first-generation college students, especially those who identified as a minority (female and/or ethnic minority) are less likely to persist to the second year of college. First generation college students who come from families with a higher socioeconomic status are more likely to be retained to their second year of college compared to those who come from lower socioeconomic classes.

**Freshman Transition**

College students, specifically freshmen, are more prone to experiencing stress because of the transition and adjustment into the higher education setting (D'Zurilla & Sheddy, 1991). Freshmen college students have to adjust to a new level of independence while inhabiting an unfamiliar environment (Pancer, Hunsberger, Pratt & Alisat, 2000). Stressors for freshmen include leaving family and friends, personal responsibility, pressure for good academic performance, balancing college life, establishing new relationships, and living with others experiencing personal struggles (Grayson & Meilman, 2006; Ross et al., 1999). Unrealistic or wrong ideations and expectations about university life also serves as a factor that may initiate stress as part
of the freshman transition (Pancer et al., 2000; Kreig, 2013). Pillay and Ngcobo (2010) found the most stressful aspects of college for freshman students to be academics and fear of failing.

Kreig (2013) conducted a longitudinal study that compared student’s expectations and experiences with the relationships of expectations that were not met and the correlation with stress. Kreig (2013) looked at the expectations of students regarding academics, social life, relationships with parents and satisfaction before entering college, during their first year and during their fourth year. From the study, Kreig (2013) found that students expectations of college were fairly accurate, which may be a result of advanced technology, the media, and availability to obtain information rather easily. Kreig (2013) did find that when student’s expectations were not met, in a negative direction, there were increased reported symptoms of stress.

Gender differences in stress and coping

The reaction to experienced stress is dependent on how individuals cope with their stress (Bulo & Sanchez, 2014). Feelings of loneliness and nervousness can evolve if one does not deal with their stress (Bulo & Sanchez, 2014), thus finding appropriate ways to deal with stress is crucial to the overall physical and mental well-being of college students.

Males and females differ in the ways they experience, perceive and respond to stress (Burke and Weir, 1978). Coping can be put into two categories: problem focused and emotional focused (Broughman, Zail, Mendoza & Miller 2009). The difference between the two is that problem focused coping uses alterations in behavior, such as taking action and planning (Broughman et al., 2009), while emotion focused coping relates to handling situations by expression emotions and changing expectations.
(Broughman et al., 2009). Coping strategies can also be labeled as adaptive or maladaptive (Broughman et al., 2009). Adaptive coping involves taking action, acceptance, and positive reframing of the stressful situation (Broughman et al., 2009). Maladaptive coping involves expression of emotions and avoidance of the stressful situation (Broughman et al., 2009). Mahmoud, Staten, Hall, and Lennie (2012) studied the relationship of college students' depression, anxiety, stress, demographics, life satisfaction, and coping styles, they found that maladaptive coping has been found to be related to depression, anxiety, and stress (Mahmoud et al., 2012). Although there was no difference in the scores of depression between males and females, females did report higher levels of anxiety and stress (Mahmoud et al., 2012). Brougham et al., (2009) studied the relationships between sexes, sources of stress and coping strategies and found that overall women report higher stress levels in regards to family, finances daily hassles and social aspects compared to men. Women are also reported greater use of self-help, approach, and self-punishment as a means of coping with stress (Brougham et al., 2009).

Summary

Chapter II included a review of literature on a variety of paradigms of stress and its relationship to freshman female students. Chapter III contains information regarding the design of the study, participants, research site and methodology for collection, analysis and treatment of data.
CHAPTER III

Methods

Design of the Study
The researcher of this study used a quantitative cross-sectional design to determine the sources of stress of freshman female undergraduate students. This study was reviewed by Institutional Review Board (see Appendix A). The study was launched the second week of October 2015.

Participants
Participants for this study were undergraduate first semester freshman females residing in on-campus housing at a mid-sized public institution in the Midwest region of the United States. Participants were first time freshman students and were not given an incentive for their contribution to this study. Participants received the survey via email the second week of October 2015; the email contained a briefing of the study (see Appendix C) and a link to the survey. Two weeks after the initial email, the researcher sent a reminder email. After four weeks the survey was closed.

Site
This research took place at a rural mid-sized public institution located in the Midwest region of the United States. The researcher chose this site because of easy accessibility. At the time of this study, the research site had a first time freshman student population of 1,085 students consisting 405 males, 670 females, 461 first generation college students, and 624 continuing generation college students (Eastern Illinois University First-Time Freshman Class Profile, 2015). The ethnic breakdown of the fall 2015 freshman class includes 0.2 percent American Indian and Alaska Native, 0.8% Asian, 26.8 percent African American, 8.7% Hispanic, 2.8 % international, 3.3%
bi/multi-racial, and 56.9 % White (Eastern Illinois University First-Time Freshman Class Profile, 2015).

**Instrument**

**The Developmental Inventory of Sources of Stress (DISS).** The researcher of this study gained permission by the creators of the DISS to use their instrument for this study (see Appendix B). The DISS was used to obtain the data on the sources of stress experienced by female freshmen undergraduate students. The DISS is a 65-item inventory consisting of five scales: time management, physical lifestyle, chemical stressors, academic, and interaction (Higbee & Dwinell, 1992). Reliability coefficients for the five scales range from .56 to .63 (Higbee & Dwinell, 1992). Internal consistency coefficients for the five sub scales are: time management scale, .75; physical lifestyle scale, -.13; chemical stressor scale, .55; academic scale, .72; interaction scale, .79 (Higbee & Dwinell, 1992). The Developmental Inventory of Sources of Stress uses a 5-point Likert-type scale in which a rating of 5 indicates a lower source of stress and a rating of 1 indicates a higher source of stress (Higbee & Dwinell, 1992). Score for questions 3, 8, 16, 18, 19, 20, 28, 41, 27, 54, 59, 60, and 61 are coded (Higbee & Dwinell, 1992). To obtain raw scores, responses should be added along with the weights for each item and adjusted scores are determined by dividing raw score by the number of items on the scale (Higbee & Dwinell, 1992). It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.

**Demographics.** Demographic information on generational status, race, and sexual orientation were collected.

**Data Collection**

The survey was sent out electronically to the 656 first time freshman female students residing in on-campus housing. The survey was distributed using Qualtrics, and was emailed to the entire population of freshmen females who live on campus. The
participants had four weeks to complete the survey which was initially sent the second week of the October 2015 and ended the fourth week of October 2015. The researcher sent reminder email two weeks after the initial email and again a week before the survey closed. Overall 101 students completed the survey, representation a 15.3 % response rate. After all data was collected it was imported into an Excel then analyzed through Statistical Package for Social Sciences (SPSS).

**Data Analysis**

The data were first divided by demographics including race, sexual orientation, and generational status. Data attached to first generation and continuing generation freshman female were analyzed by conducting a 2-tailed $t$-test and scores were obtained for total stress score and scores for each of the five subscales, time management, physical lifestyle, chemical stressors, academics, and interactions, of the DISS to indicate if there are any differences or similarities. Using a $t$-test, data related to total stress score for race and sexual orientation was analyzed.

**Treatment of Data**

The researcher of this study will keep the obtained data on an indicated file on their personal computer as well as an external flash drive. After the study is complete all data derived with be destroyed.
Chapter IV

Results

Chapter four presents the results of the study described in chapter three. Data presented will be used to answer the research questions. The survey was sent to 656 first time freshman female students residing in on campus housing. One hundred and five students responded to the survey, after removing unusable data, four students were removed because they did not complete the survey, One hundred and one participants took the survey. Table 1 presents the demographic break down of participants who completed the survey.

Table 1

Demographics

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>67</td>
<td>66.3</td>
</tr>
<tr>
<td>Non-Caucasian</td>
<td>32</td>
<td>31.7</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Straight</td>
<td>89</td>
<td>88.1</td>
</tr>
<tr>
<td>Non-straight</td>
<td>11</td>
<td>10.9</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Generational Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First generation</td>
<td>45</td>
<td>44.6</td>
</tr>
<tr>
<td>Continuing generation</td>
<td>56</td>
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<tr>
<td><strong>Total</strong></td>
<td>101</td>
<td>100.0</td>
</tr>
</tbody>
</table>

RQ#1 Overall, is there a statistically significant difference between first generation freshman females and continuing generation freshmen females in regards to the levels of stress as indicated by the DISS?

The researcher hypothesized that freshman female students who identified as first generation would have increased levels of stress when compared to continuing generation
freshman female students. A t-test was conducted to answer research question one. Results of the t-test indicated that there is an overall significance difference between first generation freshman female students and continuing generation freshman female student, \( t(99) = -0.12, p = 0.006 \). The mean comparisons show a slight difference between first generation freshman female students (\( M = 3.24, SD = 0.43 \)) and continuing generation freshman female students (\( M = 3.13, SD = 0.1 \)). The results of the t-test confirmed the hypothesis indicating a statistically significant difference in the total stress scores between first generation freshman females and continuing generation freshman females.

Table 2 provides the mean comparisons and results of the t-test. It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.

Table 2

<table>
<thead>
<tr>
<th>Generational Status</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>45</td>
<td>3.24</td>
<td>4.3</td>
<td>-1.2</td>
<td>99</td>
<td>*.006</td>
</tr>
<tr>
<td>Continuing Generation</td>
<td>56</td>
<td>3.13</td>
<td>4.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RQ #2. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the time management scale as measured by the DISS?

The researcher hypothesized that students who identified as first generation freshman females would have increased levels of stress related to time management when
compared to continuing generation freshman female students. Results of the t-test, $t(99) = -.039$, $p = .04$, indicated that there is a statistically significant difference between first generation freshman female students ($M = 3.06, SD = .65$) and continuing generation freshman female students ($M = 3.13, SD = .65$) in relation to experienced stress associated with time management. The results of the $t$-test answer research question two and confirm the researcher's hypothesis that first generation freshman female students experience increased stress related to time management when compared to their continuing generation freshman female peers. Table three provides the mean comparisons and results of the $t$-test. It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.

Table 3

*Time management stress scores comparing first generation freshman females and continuing generation freshman female students.*

<table>
<thead>
<tr>
<th>Generational Status</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>$t$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>45</td>
<td>3.06</td>
<td>.65</td>
<td>-.039</td>
<td>99</td>
<td>* .04</td>
</tr>
<tr>
<td>Continuing Generation</td>
<td>56</td>
<td>3.13</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RQ #3. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the physical lifestyle scale of the DISS?**

The researcher had no clear hypothesis when comparing stress related to physical lifestyle of first generation freshman females and continuing generation freshman female students. Results of the $t$-test, $t(99) = -.108, p = .02$, indicated a significant difference
between first generation freshman female students ($M = 3.30, SD = .57$) and continuing generation students ($M = 3.43, SD = .65$) in relation to experienced stress associated with physical lifestyle. The results of the $t$-test answered research question three. Table four provides the mean comparisons and results of the $t$-test. It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.

Table 4

**Physical lifestyle stress scores comparing first generation freshman females and continuing generation freshman female students**

<table>
<thead>
<tr>
<th>Generational Status</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>$t$</th>
<th>df</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>45</td>
<td>3.30</td>
<td>.57</td>
<td>-.108</td>
<td>99</td>
<td>* .02</td>
</tr>
<tr>
<td>Continuing Generation</td>
<td>56</td>
<td>3.43</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RQ #4. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the chemical stressor scale of the DISS?

The researcher had no clear hypothesis when comparing stress related to chemical stressors of first generation freshman females and continuing generation freshman female students. Results of the $t$-test, $t (99) = -.124, p = .02$, indicated a statistically significant difference between first generation freshman female students ($M = 4.06, SD = .41$) and continuing generation freshman female students ($M = 4.16, SD = .39$) in relation to experienced stress associated with chemical stressors. Research question four was answered by the $t$-test showing that first generation freshman female students experience more stress associated with chemical stressors than their continuing generation freshman female peers. Table five provides the mean comparisons and results of the $t$-test. It is
important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.

Table 5

*Chemical stress scores comparing first generation freshman females and continuing generation freshman female students.*

<table>
<thead>
<tr>
<th>Generational Status</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>45</td>
<td>4.06</td>
<td>.41</td>
<td>-.124</td>
<td>99</td>
<td>* .02</td>
</tr>
<tr>
<td>Continuing Generation</td>
<td>56</td>
<td>4.16</td>
<td>.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RQ #5. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the academic scale of the DISS?**

The researcher hypothesized when comparing stress related to academics that first generation freshman females would experience increased levels of stress compared to continuing generation freshman female students. Results of the *t*-test, *t*(99) = -.013, *p* = .056, which does not indicate a significant difference between first generation students (*M* = 2.98, *SD* = .64) and continuing generation students (*M* = 2.95, *SD* = .63), in relation to experienced stress associated with academics. Although the researcher’s hypothesis was not confirmed, the mean scores of first generation freshman female students and continuing generation freshman female students show overall high levels of stress associated with academics. Table six provides the mean comparisons and results of the *t*-test. It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.
Table 6

*Academic stress scores comparing first generation freshman females and continuing generation freshman female students.*

<table>
<thead>
<tr>
<th>Generational Status</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>45</td>
<td>2.98</td>
<td>.64</td>
<td>.013</td>
<td>99</td>
<td>.056</td>
</tr>
<tr>
<td>Continuing Generation</td>
<td>56</td>
<td>2.95</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*RQ #6. Is there a difference in the levels of stress between first generation freshman female students and continuing generation freshman female students as measured by the interaction scale of the DISS?*

The researcher hypothesized when comparing stress related to interactions that first generation freshman females would experience increased levels of stress associated with interactions when compared to continuing generation freshman female students. Results of the t-test, $t(99) = -0.013$, $p = 0.030$, indicated a significant difference between first generation freshman female students ($M = 3.10$, $SD = .59$) and continuing generation freshman female students ($M = 3.19$, $SD = .58$) in relation to experienced stress associated with interactions. The researcher’s hypothesis was confirmed and results of the t-test indicate that first generation freshman females experience increased levels of stress relating to interactions than their continuing generation freshman female peers. Table seven provides the mean comparisons and results of the t-test. It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.
Table 7

Interaction stress scores comparing first generation freshman females and continuing generation freshman female students.

<table>
<thead>
<tr>
<th>Generational Status</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>45</td>
<td>3.10</td>
<td>.59</td>
<td>.050</td>
<td>99</td>
<td>*.030</td>
</tr>
<tr>
<td>Continuing Generation</td>
<td>56</td>
<td>3.19</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RQ #7. Overall, is there a statistically significant difference between Caucasian freshman females and non-Caucasian freshmen females in regards to the levels of stress as indicated by the DISS?

The researcher hypothesized that students who identified as non-Caucasian would have increased levels of stress when compared to Caucasian students. Results of the t-test indicated that there is an overall statistically significant difference between non-Caucasian and Caucasian students, $t (97) = .25, p = .0017$. On average, non-Caucasian students ($M = 3.18, SD = 0.45$) showed increased levels of stress compared to Caucasian students ($M = 3.33, SD = 40$). Results of the $t$-test answer research question seven and confirm the researcher's hypothesis. Table eight provides the mean comparisons and results of the $t$-test. It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.
Table 8

*Total stress scores comparing non-Caucasian freshman females and Caucasian freshman female students.*

<table>
<thead>
<tr>
<th>Race</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Caucasian</td>
<td>32</td>
<td>3.32</td>
<td>.45</td>
<td>.025</td>
<td>97</td>
<td>*.0017</td>
</tr>
<tr>
<td>Caucasian</td>
<td>67</td>
<td>3.19</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RQ #8. Overall, is there a statistically significant difference between straight freshman females and non-straight freshmen females in regards to the levels of stress as indicated by the DISS?

The researcher hypothesized that students who identified as non-straight would have increased levels of stress when compared to straight students. A t-test was conducted to answer research question eight. Results of the t-test indicated an overall significant difference between non-straight freshman female and straight freshman female students, $t(98) = .0100$, $p = .008$. Non-straight freshman female students ($M = 3.20, SD = 0.338$) and straight freshman female students ($M = 3.29, SD = .434$) showed significant differences in their stress scores. Results of the t-test answer research question eight and confirm the researcher’s hypothesis that non-straight freshman females experience increased stress when compared to their straight freshman female peers. Table nine provides the mean comparisons and results of the t-test. It is important to mention that lower scores on the Developmental Inventory of Sources of Stress indicate higher levels of stress.
Table 9

Total stress scores comparing non-straight freshman females and straight freshman female students.

<table>
<thead>
<tr>
<th>Sexual Orientation</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-straight</td>
<td>11</td>
<td>3.22</td>
<td>.338</td>
<td>.100</td>
<td>98</td>
<td>* .008</td>
</tr>
<tr>
<td>Straight</td>
<td>89</td>
<td>3.29</td>
<td>.434</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter V

Conclusion

Chapter V presents the results of the study that focused on sources of stress among and between first generation and continuing generation freshman female students, Caucasian and non-Caucasian freshman female students and straight and non-straight freshman female students. Stress scores between first generation and continuing generation freshman female students were analyzed by looking at total stress scores and on five different scales which included academics, interactions, chemical stressors, physical life style, and time management. Stress between Caucasian and non-Caucasian freshmen females and straight and non-straight freshman females was analyzed just on total stress score. This chapter will discuss the results of the study and how it relates to literature discussed in chapter II, limitations associated with the study, and provide recommendations for future research and for student affairs professionals.

Discussion

Findings of this study were compared with previous research from chapter II. This study provides similar and different results compared to previous literature. Overall, this study provides insight to the experiences and sources of stress of first generation freshman female students, continuing generation freshman female students, sexual minority freshman female students, and ethnic minority freshman female students.

First generation freshman female students experience higher levels of stress when compared to continuing generation freshman female students.

When looking at the scores of the sub-scales of the Developmental Inventory of Sources of Stress first generation freshman female students reported statistically
significant differences in levels of stress in all areas except for academics compared to continuing generation freshman female students who only showed higher levels of stress related to academics.

Little research in the direct area of stress and first generation college students was found for this study. For first generation freshmen, coming into the higher education environment is unknown territory, which can obviously cause stress in a variety of magnitudes. Research supports the notion that continuing generation students are at an advantage in the higher education environment because they have been educated by their parent on the expectations and culture of attending college (Jenkins, Belanger, Connally, Boals & Duron, 2013). It is possible that first generation freshman females may not feel like they have the support either from family and friends and/or on campus that they need to succeed at college. Another explanation for the results of this study is that since the study was sent out very early in the freshman student’s college career that they may have yet to establish an understanding of the collegiate environment and may still be dealing with the transition of being on their own.

**First generation freshman females experience higher levels of stress associated with time management compared to continuing generation freshman female students.**

This study shows that first-generation freshman females experience greater stress relating to time management compared to their continuing-generation freshman female peers. Britz and Pappas (2010) found that time management was one of the top stressors indicated by college students. Prior to this study, little information was found to indicate why first generation college students may struggle with managing their time effectively.
It is possible that first-generation freshman students get stressed trying to manage their time since they may have little or no prior knowledge of the academic and social rigor of the college environment. First generation college students are more likely to have to pay their own way through college with little or no help from their parents (Mehta, Newbold, & O’Rourke, 2011). Having to earn money to pay for their education may cause first generation college students difficulty in attempting to balance work, school, and a social life which could in turn be stressful.

The results of this study indicate that first generation college students may think that they do not have enough time to get tasks done, may feel like they do not have an adequate amount of time preparing for quizzes and test, are often late to classes and appointments, and may not get enough rest.

Another explanation for the results of this study include the timing of the study. Since this study took place early in the college career of freshman students, they may have been struggling to figure out a way to manage their time with the new experiences of not having a parent or guardian to remind them of task and having to spend more time towards academics than they may have had to in high school.

**First generation freshman females experience greater levels of stress associated with physical lifestyle compared to continuing generation college students.**

Prior to this study, little literature was found on stress related to physical lifestyles of first generation freshman female students. Results of this study indicate a statistically significant different in levels of stress experienced by first generation freshman females and continuing generation freshman females relating to their physical lifestyle. Research
supports the idea that stress can cause a change in an individual’s physical well-being (Dixon & Robinson-Kurpius, 2008; Lee, Wuertz, Rogers, & Chen, 2013). Since first generation freshman females reported increased levels of total stress compared to continuing generation freshman females it is consistent that they would have increased levels of stress associated with their physical lifestyle.

Stress can affect an individual’s health, even more specifically their sleep habits, which can lead to increased poor academic performance (Lee et al., 2013). As discussed in research question two, first generation college students may struggle to balance the rigor of the college environment, especially if they have to maintain a job to support themselves. Attempting to take on many task could leave individuals deprived of sleep, which can have a negative impact on physical and mental health (Lee et al., 2013). If first generation college students find themselves always pressed for time they may be more prone to grabbing food that is convenient but less nutritious as they may be in a rush, or they may completely skip meals. First generation college students may also struggle to get adequate amounts of sleep or may get too much sleep, causing physical stress to their well-being.

Results of this study indicate that first generation freshman female students may struggle to physically relax and are more prone to developing unhealthy habits such as skipping meals, not eating healthy foods, and possibly developing eating disorders.
First generation freshman females experience increased levels of stress associated with chemical stressors compared to continuing generation freshman female students.

Although it is likely that a majority of students will feel pressured to experiment with some sort of drugs and/or alcohol during their college career, this study found that first generation freshman female students are prone to experiencing increased levels of stress relating to chemical stressors compared to their continuing generation peers. Higbee and Dwinell (1999) suggest that in some situations, college students are faced with academic pressure and other stressors that lead some students to feel a need to drink, do drugs, or end their life. The increased levels of stress experienced by first generation freshman females indicate the possibility that first generation freshman female college students rely on chemicals such as nicotine, caffeine, sleeping pills, and alcohol to cope with their stress.

First generation freshman female students do not experience increased levels of stress associated with academics compared to continuing generation freshman female students.

This study did not find a statistically significant difference in the levels of stress between first generation freshman females and continuing generation freshman females. Research suggests that first generation college students are at a disadvantage to the academic lifestyle of higher education because their continuing generation peers' parents have prepared them for the academic vigor of college (Jenkins et al., 2013). Penrose's (2002) research did not find a significance difference between first generation and continuing generation students' academic achievement.
The mean comparison results of first generation freshman females and continuing
generation freshman females on the academic scale show that continuing generation
freshman females experience higher levels of stress on the academic scale compared to
their first generation freshman female counterparts. A possible explanation for this result
is that continuing generation college students receive additional pressure to perform well
academically because of standards and expectations set by their parents while first
generation college students do not have similar pressures from family to perform well
because there are no assumed or set expectations for their academic performance.

**First generation freshman female students experience increased levels of stress associated with interactions compared to continuing generation college students.**

This study shows a statistically significant difference in the levels of stress associated with interactions between first generation freshman females and continuing
generation freshman females. Pike and Kuh (2005) found that first generation college
students were less socially engaged in the college environment compared to continuing
generation students. Reflecting back to research question II, first generation college
students may have to work to pay for their college education. Since first generation
college students may have to balance school and work can be stressful enough, balancing
a social life and friends may become over taxing. It is also possible that first generation
college students experience more stress associated with interactions because they feel like
they do not fit in with the academic and social environment and may be intimidated by
faculty and/or staff.
First generation college students may also feel a need to spend more time with family, or they may have jobs back home, therefore they may frequently leave campus to travel home on the weekends providing little time or interactions with others.

The results of this study also indicate that first generation freshman female students are more likely to not express their feeling in front of their peers, struggle to say “no” to others, experience nervousness when meeting new people, and may feel like they do not have anyone they can talk about their problems with.

**Freshman female students identifying as non-Caucasian experience increased levels of stress compared to Caucasian freshman female students.**

The results indicated a statistically significant difference in stress levels of non-Caucasian students compared to Caucasian students. Greer and Chwalisz (2007) studied the difference in stress and comping among African American students attending historically black institutions and predominately White institutions, from their study they found that that African American students attending predominately White institutions experienced higher levels of environmental, interpersonal, and intragroup stress compared to African American students attending historically black institutions. The results of this study help to indicate the challenges that ethnic minority students may have regarding stress and time management, physical lifestyle, academics, chemicals, and interactions on a predominantly which college campus.

The results of this study indicate the possibility that freshman female students identifying as non-White are more prone to struggling with interacting with peers, may rely on chemicals such nicotine, caffeine, and alcohol to cope with stress, and may be more likely to develop eating disorders.
Results of this study could also be described by looking at the current situations happening within the American Society at the time of this study. At the time of this study there was an increased amount of public racism and hate crimes happening in the American society, such as racist events on the University of Missouri campus (Thomason, 2015). Students identifying as ethnic minorities most likely perceived these events as stressful which could possible impact their total stress score and college experience.

**Freshman female students identifying as nonstraight experience increased levels of stress compared to straight freshman female college students.**

The results of this study indicate a difference in the total stress score between straight freshman females and non-straight freshman females. Zubernis and Snyder (2007) suggested that individuals who identify with a minority sexual orientation are prone to additional stressors. A possible explanation for this result could be that since the population studied were in their first semester of college, they may have yet to find the proper resources on campus, have yet to find a support group in their new environment, and/or may still be struggling with their sexual identity. Individuals identifying as sexual minorities may feel comfortable being themselves in the college environment but may be hiding their identity from their family and/or friends back home, so they may feel stressed as they are struggling with balancing two identities.

The results of this study also indicate the possibility that freshman female students identifying as non-straight are more prone to struggling with interacting with peers, may
rely on chemicals such nicotine, caffeine, and alcohol to cope with stress, and may be more likely to develop eating disorders

**Limitations**

There were limitations throughout this research that need to be addressed. First, question fifteen from the time management scale was removed due to miswording upon entering the survey into the administration software, the removal of question fifteen may have caused a difference in the distribution of the scores of participants.

Second, the unequal distribution of demographics between race and sexual orientation propose a significant limitation. In regards to race, 67 participants identified as Caucasian while only 32 identified as non-Caucasian. The distribution of sexual orientation was 89 straight and 11 non-straight. Due to the decrease number of participants of ethnic and sexual minorities the researcher decided not to distinguish groups any further that “non-Caucasian” and non-straight.” Another limitation of this student include the small sample size of 101 which only represents a small proportion of freshman female students.

Another limitation of this study includes the timing of the survey distribution. The survey was sent out the 6th week of the fall 2015 semester. The timing of this study is a limitation because the population studied were new to the environment as it was their first semester on campus and it was relatively close to midterms which could cause an increase of stress in students. This study did not look at students living off-campus, which is another limitation. Pike and Kuh (2005) suggest that first generation college students are more likely to not live in on campus housing, therefore this study does not fully represent the population of first generation freshman female students or study the differences in experiences between on-campus and off campus living.
There were significant gaps in the literature that serve as a limitation in this study. Little applicable information in the areas of stress associated with first generation college students, sexual minority college students, and ethnic minority college students was found. Finally, the Developmental Inventory of Sources of Stress does not identify stressors that students might experience from life events such as death of a family member or friend, chronic illness, etc.

**Recommendations for Student Affairs Professionals**

The results of this study have allowed for the development of recommendations for student affairs professionals to better support populations of first generation freshman female students.

1. **Develop support groups or on campus organizations for first generation students.** The findings of this study indicate a need to better support first generation college students through their college experience. Provided support groups or campus organizations for first generation students to share insight, feelings, and experiences could lead to a better sense of social support for such students.

2. **Develop a mentoring program for first generation college students.** Helping first generation college students establish relationships and connections on college campuses may benefit in the retention and sense of belonging for such students. Providing a mentoring programs that allows first generation college students to work one-on-one outside the classroom with faculty and staff will help them develop a sense of support.

3. **Provide more on campus jobs for first generation students.** Since First generation college students are more likely to be from lower socioeconomic
statuses (Mehta et al., 2011), they may have to hold a job to support themselves through college. Providing more opportunities for first generation college students to stay on campus and work could reduce their stress associated with time management and interaction. As working on campus will reduce the time to commute to work and provide them with an opportunity to build relationships with other students.

4. **Provide informational sessions during orientation for first generation college students and their parents.** Since many parents of first generation college students have little information about the culture of the college environment, it would be recommended that there is a special session for families of first generation college students during their orientation process. Such programs or sessions could reduce the stress of first generation college students because both the parents and student will be more informed and knowledgeable of the college environment, academically and socially.

5. **Develop on campus stress management programming and initiatives.** Allowing students an escape from their stress is crucial on a college campus. Although counseling services are available on most college campuses, informal outreach may be more efficient on reaching the student population. Since this study focused on students living in on campus housing, there is an obvious need to program in residence halls on the areas of stress management. It is suggested that housing staff collaborating with different departments on campus to provide education and informal outreach to residential students.
6. **Connect first generation students with career services early in their career.** Connecting first generation college students with resources such as career services may help them better understand what they are looking for in the academic experience of college. Helping first generation college students identify areas that they enjoy and that they are good at could help them in establishing a purpose to return to the institution and graduate.

7. **Increase options for interactions outside the classroom for students.** This study indicated significant amounts of stress in the area of interactions for all demographics studied (non-Caucasian, not-straight, and first-generation college students). This study used participants living in on campus housing, offering more opportunities for students to get out of their residence hall and interact with people who are different than them could be beneficial in reducing stress associated with interactions.

**Recommendations for Further Research**

1. **Repeat this study including both on campus and off campus students.** First generation College students are more likely to live off campus compared to continuing generation college students (Pike & Kuh, 2005); this study was focused towards students living on campus. Pike and Kuh (2005) found that living on campus significant effect on student’s engagement. It is recommended that this study be repeated including first generation and continuing generation students living on campus and off campus. Repeating this study including students living on campus and off campus could help provide institutions with more data to indicate the importance of having on campus residency requirements.
2. **Conduct this study using both male and female students.** This study did not focus on the differences between male and female students, to gain better knowledge and understanding of differences in stress and male and female students, this study would need to be repeated including both sexes.

3. **Conduct this study on first time freshman students and last year senior students.** This study was focused directly on first time freshman students. Conducting this study on freshmen and seniors would provide research in the differences in sources of stress students may experience during their freshman year and senior year of college.

**Summary**

Chapter V presented the discussion of the quantitative results of a research study investigating the sources of stress for freshman female college students. Using Higbee and Dwinell's (1992) questionnaire, the researcher was able to collect data on total levels of stress and levels of stress reported on five subscales which included, academics, interactions, chemical stressors, physical lifestyle, and time management. The results of the study answered the eight research questions. Overall, findings indicated that there is a significant difference in the levels of stress between first generation freshman female students and continuing generation freshman female college students, straight and not-straight freshman female students, and Caucasian and non-Caucasian freshman female students. When the levels of stress of each subscale for first generation freshman females and continuing generation freshman females, there was a statistically significant difference on each scale except the academic scale, which is consistent with previous research. The results of this study provide recommendations for student affairs professionals to better support first generation students and sexual and ethical minority students.
References


life satisfaction, and coping styles. Issues in Mental Health Nursing, 33, 149-156.


Appendix A

August 21, 2015

Amber Byrley
Counseling and Student Development

Thank you for submitting the research protocol titled, “A Quantitative Study of Sources of Stress for Freshman Female College Students” for review by the Eastern Illinois University Institutional Review Board (IRB). The IRB has reviewed this research protocol and effective 8/19/2015, has certified this protocol meets the federal regulations exemption criteria for human subjects research. The protocol has been given the IRB number 15-095. You are approved to proceed with your study.

The classification of this protocol as exempt is valid only for the research activities and subjects described in the above named protocol. IRB policy requires that any proposed changes to this protocol must be reported to, and approved by, the IRB before being implemented. You are also required to inform the IRB immediately of any problems encountered that could adversely affect the health or welfare of the subjects in this study. Please contact me, or the Compliance Coordinator at 581-8576, in the event of an emergency. All correspondence should be sent to:

Institutional Review Board
c/o Office of Research and Sponsored Programs
Telephone: 217-581-8576
Fax: 217-581-7181
Email: eiuirb@www.eiu.edu

Thank you for your cooperation, and the best of success with your research.

Richard Cavanaugh, Chairperson
Institutional Review Board
Telephone: 217-581-6205
Email: recavanaugh@eiu.edu
Appendix B
Written permission to use DISS

Patricia Dwinell <patdwinell@gmail.com>
Thu 4/30/2015 6:47 AM
To : Amber D Byrley;

Good Morning, Amber. Jeanne Higbee copied me her response to you regarding the DISS instrument. Yes, you also have my approval to use the instrument in your study.

Patricia Dwinell, PhD

Jeanne Higbee <higbe002@umd.edu>
Thu 4/30/2015 1:23 AM
To: Amber D Byrley;
Cc: Patricia Dwinell <p.dwinell@aol.com>

Yes, of course, Amber, I am happy to provide written permission for you to use "The Developmental Inventory of Sources of Stress." I am also copying my co-author, Pat Dwinell. I am sure that she will also be pleased that our work is useful to you.

I hope that you enjoy your graduate school experience.

Jeanne

Amber D Byrley
Wed 4/29/2015 2:56 PM
Sent Items
To: higbe002@umn.edu;
Greetings Dr. Higbee,

My name is Amber Byrley and I am a first year graduate student in the College Student Affairs program at Eastern Illinois University. I am doing a thesis on the sources of stress of freshman female students. While doing research I came across an article "The Developmental Inventory of Sources of Stress (DISS)" that you contributed to in 1992. I am wondering if I could have written permission from you to use the instrument in my study, as it is a perfect match for what I am interested in finding.
I thank you for your time and look forward to hearing from you,
Amber Byrley
Associate Resident Director
Eastern Illinois University
1521 4th Street
Charleston, IL 61920-3946
Appendix C
Informed Consent

Dear Student:

This is a reminder email that you have been selected to participate in a study conducted by Amber Byrley, a graduate student in the College Student Affairs Program. If you have already taken this survey please disregard this email. If you have not taken the survey, it will only take 25-30 minutes of your time. The purpose of the study is gain an understanding of what may cause freshman female students to experience stress during their first semester of college.

This survey is being conducted as part of an assignment for the course CSA 5950, Thesis and Research, as a requirement for the Masters of Science Program in College Student Affairs at Eastern Illinois University.

You have the right to terminate your participation at any time without penalty. There are no foreseeable risks to your participation in this. Your participation in this study will be kept confidential. Information from this research project may be shared with administration on campus. Your decision to participate, decline, or withdraw from participation will have no effect on your current or future relations with Eastern Illinois University.

To continue with this survey please click on the link below.
Appendix D
Survey Instrument

You are invited to participate in a study conducted by Amber Byrley, a graduate student in the College Student Affairs program at Eastern Illinois University. You are being asked to participate because you have been identified as a freshman female student attending Eastern Illinois University. The purpose of this study is to investigate the sources of stress of freshmen female students.

This survey will take you between 25-30 minutes to complete. Your participation is voluntary and you may withdraw at any time. Your identity and information derived from this study will be kept confidential. The results of this study may be shared with administrators on campus to better improve services to students like yourself.

If you have any questions you may contact my thesis advisor, Dr. Daniel Nadler at 217-581-3221 or by email nadler@eiu.edu.

I have read and understand the above consent form and certify that I am at least 18 years old. I understand that my participation in this study is completely voluntary and will not effect my status or relationship with Eastern Illinois University.

Part 1: Demographic Information

Please select the correct responses for the following questions

- Yes
- No

Do you currently reside in one of the residence halls on campus?
- Yes
- No
What is the highest level of education obtained by your parents/guardian?

Please select one for each

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<thead>
<tr>
<th>Parent/Guardian 1</th>
<th>Parent/Guardian 2</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>High school</td>
<td>□</td>
</tr>
<tr>
<td>Junior high</td>
<td>□</td>
</tr>
</tbody>
</table>

Part 2: Developmental Inventory of Sources of Stress

**Time Management Scale**

1. I do not seem to have enough time to do everything that needs to be done.
2. I have too much homework.
3. I spend time engaged in one of my favorite hobbies.
4. I do not have time to get the rest I need.
5. I am late for classes and/or appointments.
6. I skip meals because I do not have time to eat.
7. I do not have enough time to prepare sufficiently for quizzes and tests.
8. I try to take some time to relax.
9. I get anxious when I realize I do not have time to get my work done.
10. I feel like I am hurrying all the time.
11. I just feel overwhelmed to go on.
12. I wish I had more time to just be by myself.
13. I wish I had more time to spend having fun with my friends.
15. I need more time to think.

**Physical Lifestyle Scale**

1. I eat at least three meals each day.
2. I skip breakfast.
3. My daily diet includes foods from each of the four basic food groups: dairy products, meats, grains, and fruits and vegetables.
19. I engage in continuous exercise for 30 minutes or more (e.g. walking briskly, jogging, biking, swimming, aerobics, racquetball).
20. I get at least eight hours of sleep per night.
21. I get fewer than six hours of sleep at night.
22. My weight fluctuates significantly (by more than five pounds).
23. When I have gained too much weight I lose it again by going on “crash” diets, i.e. skipping meals, not eating balanced meals.
24. I take a laxative or force myself to vomit after eating too much.
25. I have trouble physically relaxing my body.

Chemical Stressor Scale
1 = Every day or almost every day
2 = Three or more days per week
3 = One or two days per week
4 = Three or fewer days a month
5 = Never or almost never

26. I drink 24 ounces or more of caffeinated beverages (e.g. two cans of cola, three cups of coffee, tea or cocoa per day.
27. I smoke half a pack or more of cigarettes.
28. I take a daily multiple vitamin supplement.
29. I drink caffeinated beverages to help keep me awake.
30. In order to stay awake I take one of the chemical aids available over-the-counter, e.g. No-Doz
31. I take medication to help me sleep.
32. I take an appetite suppressant to help me lose weight.
33. I eat a lot of “sweets”, e.g. candy, cookies, doughnuts, soft drinks.
34. I drink alcoholic beverages to help me relax.
35. I consume alcoholic beverages until I “pass out”.

Academic Stressor Scale
1 = Always or almost always
2 = Often
3 = Sometimes
4 = Seldom
5 = Never or almost never

36. I do not feel that I really understand what my teacher is trying to explain.
37. I can read in a textbook for more than an hour and not remember anything I read.
38. My friends and classmates seem smarter than me
39. I am afraid to ask questions in class.
40. My classes are too hard.
41. I like to study with my friends.
42. I do not know what I want to major in.
43. I “freeze” on test.
44. No matter how hard or long I study, I seem to study the wrong things for the test.
45. I get nervous just knowing there is a test coming up.
46. I cannot take lecture notes fast enough to keep up with the professor.
47. My grades do not matter as long as I know I have done my best.
48. I worry that I will not be able to pursue my career goals if my grades are not high enough.
49. I do not think I can attain the academic goals my parents have set for me.
50. When I am not doing well in school I tend to just give up.

**Interaction Scale**

1= Always or almost always  
2= Often  
3=Sometimes  
4=Seldom  
5=Never or almost never

51. I am nervous about meeting new people.
52. I have difficulty expressing myself in front of large groups of people.
53. I agree to do things I don’t really want to do.
54. If I don’t like something, I say so.
55. I get embarrassed when someone pays me a compliment.
56. I have trouble saying “no” to people.
57. I am not very good at accepting criticism.
58. I feel completely tongue-tied.
59. If I am angry at someone, I tell him/her why.
60. I feel comfortable telling people what I like about them.
61. I feel comfortable telling people what I dislike about their behavior.
62. I am not very good at remembering people’s names.
63. If I am angry or upset, I prefer not to talk about it.
64. My feelings are easily hurt by other people.
65. There isn’t anyone I can talk to about my problems.