ABSTRACT

Annette Morgan, A COMPARISON OF COPING AND PERCEIVED STRESS AMONG STUDENTS BY FIRST GENERATION AND CONTINUING GENERATION STATUS, RACE/ETHNICITY, AND GENDER. (Under the direction of Dr. Crystal Chambers). Department of Educational Leadership, September, 2014.

While the number of first generation and racial/ethnic minority students enrolled in higher education has increased over the past several decades, the level of stress students are reporting, compared to students in previous years has increased as well. Likewise, counseling center directors have seen an increase in the number of students with mental health issues, both as a percentage of the student population and in the severity of their illnesses. Therefore this study assessed how different student populations cope with stress. Also assessed was how diverse student populations perceive their general level of stress and if perception of stress influenced how they coped with stress. This quantitative study utilized the COPE to examine coping strategies, as well as the Perceived Stress Scale-10 to measure students' perception of stress. Research participants included 1,085 undergraduate psychology students from two southeastern universities. The sample was comprised of 38% (n=415) first generation students and 61% (n=665) continuing generation students. Participants were from six racial/ethnic groups; Black/African American, White, Hispanic of any race, American Indian/Native Alaskan, Asian, and students who self identified as being of two or more races. Statistical tests were conducted and results indicated there were more similarities between first generation and continuing generation students of different racial/ethnic groups, than there were differences in both coping and perceived stress. Results also indicated that both coping and perceived stress were not contingent on generation status and that few coping strategies were contingent on race/ethnicity and institution. However, the factor that was found to have the most significant relationship with both coping and perceived stress was gender. Possible explanations for differences as well as

similarities in coping and perception of stress are discussed. This report concludes with

recommendations for future research as well as implications for both college administrators and

counseling center directors.

A COMPARISON OF COPING AND PERCEIVED STRESS

AMONG STUDENTS BY FIRST GENERATION AND CONTINUING

GENERATION STATUS, RACE/ETHNICITY, AND GENDER

A Dissertation

Presented to

The Faculty of the Department of Educational Leadership

East Carolina University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

by

Annette L. Morgan

September, 2014

A COMPARISON OF COPING AND PERCEIVED STRESS

AMONG STUDENTS BY FIRST GENERATION AND CONTINUING

GENERATION STATUS, RACE/ETHNICITY, AND GENDER

by

Annette L. Morgan

APPROVED BY:

DIRECTOR OF DISSERTATION:_____
Crystal Chambers

COMMITTEE MEMBER:_____
David Siegel

COMMITTEE MEMBER:_____
Allison Crowe

COMMITTEE MEMBER:_____
Christine Dolbier

CHAIR OF THE DEPARTMENT OF EDUCATIONAL LEADERSHIP:

_____
William Rouse, Jr.

DEAN OF THE GRADUATE SCHOOL:

_____
Paul Gemperline

DEDICATION

As a first generation student I am proud to dedicate this dissertation to my father, Albert Leach, who passed on his love of learning to me. Whose work ethic was admirable and whose love for his family undeniable. Thank you dad. I believe that had you been around these past four years, you would have been cheering me on all the way to graduation. However, though not physically present, I felt your presence around me as I was stretched beyond what I ever imagined possible. You once wrote to me that you would love me always and forever- and I believe you still do. I also dedicate this to my mom, Gloria, who took on the role of cheerleader, always asking me how it was going, always encouraging me, yet having no idea what an important part she played in my journey. Thanks mom for always answering the phone and for your prayers that I felt all along the way. I love you.

ACKNOWLEDGEMENTS

I would like to thank my dissertation committee; Dr. Chambers my Chair, for your time, your brilliance and for pointing me in research directions that made this dissertation more complete. It truly has been an honor to have you as my Chair. Dr. Dolbier, thank you for your expertise on stress and your suggestions that enhanced this dissertation significantly. Dr. Siegel, your passion for higher education was obvious from our first day of class. Thank you for always encouraging me and challenging me to think outside the box. Dr. Crowe, thank you for your feedback and encouragement, which were always welcomed and always appreciated. I would also like to thank Dr. Poock, whose feedback through the years made me a better writer, and whose humor always put a smile on my face. I wish you the best in wherever life takes you. I would also like to thank East Carolina for giving our cohort the opportunity to pursue this degree. A very heartfelt thanks to all our professors for driving to UNCP for the past four years and for all the support you gave each of us as we faced challenges big and small, and grieved together the loss of one of our own. Thank you to Gwen Joyner – you are such as asset to this department. I truly appreciate your assistance in my final months of working on this dissertation. I would like to give a special thanks to Stewart Thomas, thank you for your patience, your computer skills and your time- all of which played a big part in me finishing this dissertation earlier rather than later. Thanks for being a friend indeed!

I would like to thank members of our cohort; Angie and Devon- our meeting times kept me on track and made this journey so much more enjoyable- the fellowship we shared was icing on the cake. Jolee, Jason, Jenn and Mike- our group always seemed like a team, sweating some assignments, questioning others- but always supporting each other. To Steven, who left us all too

soon and whose presence has truly been missed in this final stretch, but whose memory lives on. We miss you Steven.

To my siblings, Kath, John Mark, Dee and their spouses, Skip, Suzanne and Greg, your love and support have always grounded me. To my friends, who were patient with me, when I said I couldn't do something because I had a paper or an assignment due. Thank you for your encouragement- I look forward to having more time with you. I also want to thank my mother- in - law Lib Morgan, thank you for always letting me be me and for your support that I have felt ever since I came into the Morgan family.

Finally, thank you to my adult children, Melody, Mindy and Matthew- you fill my heart and I am so proud of each of you. Thank you for your encouragement from the moment I said I was going to do this crazy thing of going back to school at this time in my life. I cherish the relationship I have with each of you and love you so very much. To my sons in law, Janus and Fernando who opened up our world to new cultures and experiences. I am thankful that we are family. And to my granddaughter Anna- whose life adds so much joy to mine. May you live a life that is always aware of the presence of God with you. And last but not least, to my husband Jim- my one and only. I couldn't have done this without your support throughout this journey. Thanks for reading my papers early on, for cooking me some wonderful meals, and for understanding when I needed to work on this dissertation, even when we were on vacation. You're still the one- I love you. I also give thanks to God, who gave me the courage to pursue this dream and the strength to run the race to completion.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

Over the past 30 years, with the perception that higher education is essential for being competitive in the global job market, the number of students enrolling in post secondary education has increased significantly (Holley & Harris, 2010; National Center for Educational Statistics [NCES], 2013). The most noteworthy growth in enrollment as reported by the National Center for Educational Statistics was between 2000 and 2010 with a 37% increase in undergraduate students nationwide (NCES, 2013). This increase in enrollment has brought with it a growth in the number of first generation students as well as the number of racial/ethnic minority students (Broido, 2004; Bruinuiks, Keeney, & Thorp, 2010; Giancola, Munz, & Trares, 2008; Ishitani, 2003). Although these diverse students may have similar academic goals as their non minority and continuing generation peers, these students may have background factors that hinder their ability to contend with the vast array of challenges that higher education demands (Barry, Hudley, Kelly, & Cho, 2009; Hystad, Eid, Laberg, Johnsen, & Bartone, 2009; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). These factors may include a lack of academic preparedness, cultural racism, the absence of support that could help navigate them through their college experience, and financial stress that is a result their lower socio economic status (Carter & Reynolds, 2011; Forbus, Newbold, & Mehta, 2011; Hahs-Vaughn, 2004; Holland, 2010; Mudge & Higgins, 2011).

Consequently, the challenges with which minority and first generation students are confronted may compound the stress in their lives, a compounding effect with which their non minority and continuing generation peers may not have to contend (Hahs-Vaughn, 2004; Mehta, Newbold & O'Rourke, 2011; Pascarella et al., 2004; Wei et al., 2011).

First generation students (FGS) are students who come from a family where neither parent/guardian graduated from a 4 year college or university (Giancola et al., 2008; Murphy & Hicks, 2006; Pascarella et al., 2004). The term first generation student is used consistently in the literature when referring to students who do not have a parent who graduated from college. However, the term used for students who were raised in a family where at least one parent graduated from a college or university was not found to be consistent. Terenzini, Springer, Yaeger, Pascarella, and Nora (1996) refer to this contingent of students as traditional peers. Wang and Casteneda (2008) use the term, non-first generation students. Pascarella et al. (2004) called these students other students. Several studies (J. Giancola et al., 2008; Mehta et al., 2011; Stephens et al., 2012) use the term continuing generation students in their comparison of first generation students to other students. Therefore, for consistency in this study the term continuing generation student will be used and will refer to students who have at least one parent who graduated from a four- year college or university.

Background of the Study

Current literature suggests that todays' students are reporting higher levels of stress than students have reported in past generations (Guthman, Locin, & Konstas, 2010; Soet & Sevig, 2006; Welle & Graf, 2011). Similarly, in a recent survey conducted by the American College Health Association (2013), 83.8% of students stated that they felt overwhelmed by all they had to do. Furthermore, the National Survey of College Counseling results indicated that 87% of Counseling Center Directors reported that they have seen a significant increase in the number of students arriving on campus who are already on psychiatric medication and 95% affirm there has been a steady increase in the number of students with more severe psychiatric problems than have enrolled in past years (Gallagher & ACCA, 2013). Furthermore, universities have reported

2

an increase in the number of students who seek assistance for college counseling services (Guthman et al., 2010; Soet & Sevig, 2006). However, there is concern among college administrators and counselors that there are many students who need mental health services, yet do not seek out such assistance (Soet & Sevig, 2006; Yorgason, Linville, & Zitzman, 2008). While not all students who experience stress related problems will need counseling to help them cope, there is also a concern that many students are not using effective means of coping with the stress with which they are confronted while they are in college (Brougham, Zail, Mendoza, & Miller, 2009).

Welle and Graf (2011) contend that many students use substances such as alcohol and drugs to deal with stress, yet they maintain that using substance to cope with problems impedes one's ability to cope with stress. Likewise, some students cope with stress by neglecting their responsibilities, procrastinating, or alienating themselves from others (Mostafei, 2012), behaviors that are more likely to negate rather than promote effective coping.

While local college and university counseling centers may collect data on the students they serve, mental health statistics of college students nationwide is limited (Hayes, Locke, & Castonguay, 2011; Soet & Sevig, 2006). Furthermore, as the student population has become more diverse, there is a need for additional research that would focus on the mental health needs of these students (Soet & Sevig, 2006; Yorgason et al., 2008). Such research would give a more comprehensive understanding of the similarities and differences both among and between different student populations and subsequently could help administrators and college counseling center directors to reach out to students with programs and services that could help them effectively cope with stress they experience as they pursue higher education.

With an increase in the number of racial/ethnic minority students and first generation college students, comes an increase in the number of students who are faced with the challenge of adapting to a new culture and new experiences within the academic setting. Grabu (2011) posits that the ability to college is contingent on one's advantages versus one's challenges. Among the challenges with which racial/ethnic minority students are faced more often than non-minority students are, lack of college preparedness, discrimination, low socioeconomic status, lower likelihood of having college educated parents, and lower grade point average (Huynh & Fuligni, 2012; Mehta et al., 2011; Wei et al., 2010; Zajacova, Lynch, & Espenshade, 2005). Furthermore, first generation students often face many of the same challenges as racial/ethnic students; challenges that their continuing generation peers often do not have to contend (Forbus, et al., 2011; Mehta et al., 2011; Mudge & Higgins, 2011).

While there is a considerable amount of research that documents different life experiences of racial/ethnic groups which lead to poorer education outcomes than those in the White majority, there is a limited amount of research that gives an understanding of factors that influence the mental health of racial/minority students (Carter & Reynolds, 2011; Cokely, Hall-Clark, & Hicks, 2011; Wei et al., 2010). Concurrently, while there is a substantial amount of research which addresses the differences in challenges faced by first generation students compared to their continuing generation peers (Forbus et al., 2011; Murphy & Hicks, 2008; Pascarella et al., 2004), research is also limited concerning the mental health issues of these students. Furthermore, studies that have examined the mental health of racial/ethnic students most often include a very small ethnic contingent in their sample and therefore do not merit making conclusions about these diverse groups of people (Cokely et al., 2011; Walden, 1994; Wang & Castenda-Sound, 2008). However, in their study on the relationship between perceived

4

discrimination of minorities and mental health issues, Cokely and colleagues (2011) used a diverse sample of racial/ethnic college students, which included African American, Latino, and Asian students as well as White students, who were the majority on campus. Racial/ethnic minority students reported higher occurrences of discrimination and lower levels of mental health and exhibited higher rates of emotional distress than White students (Cokely et al., 2011). The authors also noted that an important factor to be considered in this sample population was the influence of SES of the students, with most of the racial/ethnic students in this study coming from working and middle class households compared to the majority students who were largely from upper-middle and upper class SES (Cokely et al., 2011). Acknowledging that there are other factors that need to be considered when examining the psychological issues of racial/ethnic students, the authors concurred with previous studies that more research is needed to better understand the issues of different racial/ethnic student groups, so that mental health providers may be able to reach out to these students and provide services that are more congruent with their needs (Cokely et al., 2011).

Another factor that influences the mental health of racial/ethnic students is successful adaptation to the majority culture when they attend a college. In an examination of perceived bicultural competence (the ability to function well in two or more cultures) and minority stress, a negative correlation was found to exist between perceived bicultural competence and minority stress (Wei et al., 2010). The greater the degree of competency within a new culture, the less stress the minority student experienced. Data have also indicated that the higher the rate of stress reported among minority students, the higher the degree of depressive symptoms (Wei et al., 2010). The authors concluded that current students have more severe problems than students have had in past decades.

Administrators in higher education are cognizant of the negative effect that stress has on many of their students. In addition to impeding their physical and mental health (Hystad et al., 2009) stress impacts the academic performance of students as well (Hick & Heastie, 2008; Renk & Smith, 2007). Consequently, dealing with more complex student problems among a more diverse student population has created a quandary for counselors on college campuses as the needs of students may be incongruent with the counseling programs offered to students (Benton, Robertson, Tseng, Newton, & Benton, 2003). Furthermore, there has been a growing concern among administrators in higher education regarding whether or not students are coping effectively with stress (Soet & Sevig, 2006).

Coping includes both cognitive and behavioral efforts that people use to reduce, manage, and eliminate stressful events (Lazarus, 1976). Most research tends to focus on two coping styles which are used to cope with stress. Problem focused coping, also referred to as active coping or task oriented coping focuses on reducing or alleviating the stressor, whereas emotion-focused coping is aimed at dealing with the emotional impact of the stress (Folkman & Lazarus, 1984). Furthermore, Folkman and Lazarus (1984) state that most often both active focus and emotion focused coping are used simultaneously. A third type of coping is denial, which involves behavior or mental maneuvers that are used to avoid or remove oneself from the stress (Carver, Scheier, & Weintraub, 1989). While this means of coping is often thought to be dysfunctional, Folkman and Moskowitz (2004) explain that distancing oneself from a stressor can be effective- for instance when waiting for test results. Carver and colleagues (1989) proposed assessing dimensions of coping using 15 subscales, which incorporate both active coping and emotion focused coping as well as coping scales that tend to be thought of as less adaptive: for example, the use of substances, mental and behavioral disengagement.

6

Just as the factors that challenge these diverse populations may differ, the means by which they cope with stress may vary as well (Hystad et al., 2009; Welle & Graf, 2011). Presently, there is also a concern about how colleges are addressing mental health needs of their diverse student populations. Consequently, there is a need for additional research that will provide an understanding of how diverse groups of students cope with stress.

Problem Statement

With more first generation and racial/ethnic minority students enrolling in higher education, research has maintained that these contingents of students have factors that may exacerbate their levels of stress (Hicks & Heastie, 2008; Mehta et al., 2011; Wei et al., 2010). Concurrently, research has shown a negative correlation between stress and academic success- the higher the levels of stress the lower is a student's scholastic performance (Renk & Smith, 2007; Struthers, Perry, & Menec, 2000). However, Lazarus and Folkman (1984) assert that at times stress can serve to challenge or motivate a person towards an action. For example, when a student experiences stress due to an upcoming test and subsequently the stress induces the student to study. While the research that has focused on first generation students and racial/ethnic minority students has increased in the past decade, most studies have been limited to a focus on demographic information, academic preparedness, and success (Pascarella et al., 2004). However, little is known about the cognitive and psychosocial development of these diverse groups of students (Pascarella et al., 2004; Wei et al., 2010). Data indicate a significant relationship between stress and students' mental health, physical health and academic success (Chemers, Hu, & Garcia, 2001; Ciarrochi, Dean, & Anderson, 2002; Pedersen, 2012; Welles & Graf, 2011). There is also a vast amount of research that corroborates that one's perception of stress influences how one copes with stress (Giancola, Grawitch, & Borchert, 2009; Lazarus,

7

1999; Lazarus & Folkman, 1984; Lenz, 2010). Furthermore, because racial/ethnic minority students, as well as first generation students have low retention rates, and because these students often contend with factors that both increase their stress and decrease their ability to reach their academic goals, there is a need to understand the factors that contribute to the increased levels of stress that these diverse groups of students experience while pursuing their academic goals. Consequently administrators in higher education must make a more concerted effort to understand and meet the needs of these different groups of college students (Bruininks et al., 2010). Wei et al. (2010) add that research that seeks to understand how racial/ethnic minority students cope with stress, on what are often predominantly white college campuses, is very limited and as such further research is needed which focuses on how different groups of students cope with stress.

Purpose of Study

The purpose of this study was to gain insight into the ways in which different contingents of college students cope with stress. More specifically this study explored whether there was a significant difference in the means by which various racial/ethnic students who are either first generation or continuing generation students cope with stress. This research compared coping strategies of first generation and continuing generation students at two southern universities who are among the following racial/ethnic groups: White, Black or African American, Hispanic of any race, American Indian/Native Alaskan, Asian, and students of two or more races.

Additionally it was intention of this study to determine whether there was a difference in perception of stress among different racial/ ethnic students, as well as between first generation and continuing generation students. Also examined was whether there is a relationship between one's perceived level of stress and how one copes with stress. Data collected from this research

may be used by administrators and counseling center directors in future planning for developing services and programs to help diverse groups of students cope with stress. If students are provided with more effective programs and services that help them cope with stress while they are in college, their mental and physical health as well as the likelihood of academic success could be augmented. Data identified from this study may also offer insight into further means of evaluating stress intervention programs.

Theoretical Framework

To develop a more comprehensive understanding of factors that affect the stress of first generation students, continuing generation students, and racial/ethnic students as well as to understand how these different groups of students cope with stress, this study used the lens of Vygotsky's Sociocultural Perspective (Vygotsky, 1962/1997). This perspective maintains that to better understand a person's development and the issues with which they are confronted, one must consider the influence of the background in which a person was raised. This includes an individual's social, economic, and cultural background. Vygotsky (1962/1997) posits that to ignore one's subjective experience limits the understanding of a person. Wade and Tavris (2011) concur, adding that the sociocultural perspective focuses on how one's background influences a person's behavior, feelings and attitudes. Vygotsky's view focuses on the influence of one's culture and factors that are significant in an individual's society. How a person perceives their surroundings, performs different tasks, and solves problems is highly contingent on the culture in which they were raised (Vygotsky, 1962/1997). Furthermore, considering the interaction and influence between one's own culture and their life experiences gives a more comprehensive understanding of individual identities (Evans, Forney, Guido, Patton, & Reen, 2010).

The difference in the influence of one's culture on mental health issues is illustrated in the existence of various culture-bound mental health syndromes. Culture-bound syndromes are mental disorders or syndromes that are only found in particular cultures and are believed to be influenced by an individual's particular cultural contexts and norms (Balhara, 2011). Like Vygotsky, Balhara (2011) asserted that cultural and societal factors influence one's perception and one's experiences and therefore need to be taken into consideration when trying to better understand the issues with which a person is faced. For instance in Japan, Tajin kyofusho is "an intense fear that the body, its parts or its functions displease embarrass, or are offensive to others" (Wade & Tavris, 2011, p. 559). Qi-gong psychotic reaction only occurs among people in China and is explained as "a short episode of mental symptoms after engaging in the Chinese folk practice of qi gong, or exercise of vital energy" (Wade & Tavris, 2011, p. 559). In North Africa and the Middle East, Zar is a disorder that includes "belief in possession by a spirit, causing shouting, laughing, head banging, weeping and withdrawal" (Wade & Travis, 2011, p. 559).

The lens of the socio-cultural perspective developed by Vygotsky allows the researcher to gain a more comprehensive view of an individuals' thoughts, behavior and issues, as well as a more complete understanding of how one's socioeconomic and cultural background influence one's life. For the purposes of this research study the socio-cultural perspective will provide a better understanding of the factors that increase first generation, continuing generation and racial/ ethnic minority students' stress as well as the means by which these students cope with stress.

Significance of Study

As the number of students enrolling in higher education has increased over the past several decades, the number of both first generation students and racial/ethnic minority students has increased as well (J. Giancola et al., 2008; Ishitani, 2002; NCES, 2013; Stephens, 2012). Furthermore, previous studies indicate that first generation and racial ethnic minority students have higher levels of stress and lower levels of academic success than their continuing generation and non-minority peers (Mehta, Newbold, & O'Rourke, 2011; Wang & Castenada-Sound, 2008). Subsequently, administrators and counseling center directors are concerned about the increase in the level of stress among college students (Hystad et al., 2009). They are also aware that diverse student populations have various issues and needs with which they must contend as they pursue higher education (Yorgason et al., 2008). Acknowledging research that indicates the negative effect that stress has on students' mental health, physical health, and academic success, administrators and counseling center directors have become more focused on targeting, assessing and treating students with mental health issues (Pedersen, 2012; Welles & Graf, 2011). Furthermore, they are aware that many students are not receiving the support and services they need to help them address the challenges they confront while in college (Yorgason et al., 2008). Pascarella et al. (2004) contend that the experiences of first generation students from various races and ethnicities may differ. Therefore, further research is needed to assess the differences in how these groups of students cope with stress. Lenz (2010) emphasizes that college mental health counselors must make a greater effort to understand their clients' diverse backgrounds and how their backgrounds influence the challenges they face while in college.

This study holds particular relevance as stakeholders voice concern about whether or not institutions are providing services that are effectively meeting the mental health needs of its

students (Soet & Sevig, 2006). As Bruinuiks et al. (2010) contends, colleges and universities are going to have to work harder to understand and meet the varied needs of its diverse student populations. With limited research available that considers how first generation and continuing generation students from different racial ethnic groups cope with stress, this study will study add to the body of knowledge. It is important to note that although stress is not a mental health disorder, it has been found to trigger and at times exacerbate mental health problems (Jason, Fennel, & Taylor, 2003).

Subsequently, if data indicate that there are significant differences in the ways students of different generation statuses and racial/ethnic groups cope with stress, this study may be able to provide information that could help institutions of higher education develop and provide specialized programs and services to help students cope with stress. Furthermore, if students use more effective means of coping with stress, their mental health and physical health may be enhanced, as will their likelihood of academic success.

Method

The target population for this study consisted of undergraduate students from two universities within a state university system located in the southeastern United States. As a large public university, Institution A enrolled 20,625 undergraduate students in the fall of 2013 and had a racial/ethnic population similar to other primarily white institutions (PWI) within the southeastern university system. With a student population of 5,184 undergraduate students enrolled in fall 2013, Institution B, comprises a racial/ethnic composition of students that is more racially/ethnically diverse than the student population within the university system. Therefore it provided a representative sample of the target populations being studied.

The diversity of student populations that participated in this study provided significant insight into the ways in which first generation and continuing generation students and students of different racial/ethnic groups, cope with stress and perceive stress. Furthermore, a comparison of students at these two institutions allowed for a robust sample of racial/ethnic students, first generation, and continuing generation students, and subsequently lends itself to a higher probability of generalizability to students who attend both midsized and large public universities and to students at institutations that are more or less diverse than the sample institutions. Comparing the means of student at the two universities will minimize the effect the particular institution has on students coping with stress and perception of stress.

COPE

To assess the means by which diverse groups of students cope with stress I used the COPE scale developed by Carver, Scheier and Weintraub (1989). The COPE was constructed to measure multidimensional ways in which people respond to stress in their lives (Carver et al., 1989). The COPE includes fifteen subscales with five items per subscale. Five subscales measure what is often referred to in the literature as problem solving or active coping, five subscales measure what is commonly called emotion focused coping. Five subscales include items that are often referred to as avoidance coping, which Carver et al. (1989) contend are arguably less effective means of coping with stress. Test-retest reliability was determined using Cronbach's alpha reliability coefficient for each scale (Carver et al., 1989). A range of .45-.92, alpha values were consistently moderate to high for all scales with the exception of one scale- the mental disengagement scale. While this scale fell below .60, it was deemed not completely unexpected since the COPE uses multiple –act criterion (Liverant, Test retest reliability showed that individuals' coping tendencies are relatively stable (Carver et al., 1989). This study determined

13

which demographic group uses various coping strategies most frequently, as measured by the COPE.

Perceived Stress Scale

Recognizing that individuals respond differently to similar situations, Lazarus and Folkman (1984) asserted that, "In order to understand variations among individuals under comparable conditions, we must take into account the cognitive processes between the encounter and the reaction, and the factors that affect the nature of this mediation" (p. 23). They surmised that how one appraises or perceives the stress in their life influences how they cope with stress (Lazarus & Folkman, 1984). They added that if we do not take into consideration how one perceives the stress in their life we will not be able to understand variations in how people respond to stress (Lazarus & Folkman, 1984). Therefore, this study assessed students' perception of stress using the Perceived Stress Scale (PSS) developed by Cohen, Kamarek and Mermelstein (1983) and revised by Cohen and Williamson (1988). This 10 item self -report scale measures a person's general perception of the level of stress in their life. The PSS has also been used to predict whether one's perception of stress is a risk factor for behavioral and physical disorders (Cohen et al., 1983).

Wei et al. (2010) used the PSS with a sample of Asian American, African American and Latino students to determine the relationship between perceived stress, bicultural competence and depressive symptoms among ethnic minority students. They found the PSS to be a valid measurement of perceived stress reporting a coefficient alpha level of .87 (Wei et al., 2010). Pieterse and Carter (2007) also used the PSS in a study with African American males to determine the effect of perceived stress, racism, and psychological health. They maintained

support for the use of the PSS with an obtained Cronbach's alpha reliability coefficient of .76 (Pieterse & Carter, 2007).

Data Collection Analysis

The COPE and Perceived Stress Scale were disseminated at both institutions by online surveys, using the Sona System (2013) research participant management system and Qualtrics, suvrvey software. The Sona System is a web based system that manages human subject research. It is in compliance with both the Internal Review Board (IRB) regulations and the American Psychological Association (APA) guidelines (Sona System, 2013). Compared to paper based research, the Sona System boasts an increase in overall participation rates by 25 to 50% (Sona System, 2013).

After basic descriptive statistics were calculated on demographic factors as well as on each item and scale, independent *t*-tests were used to explore whether there were statistically significant differences in coping by generation status (first or continuing generation), gender, and institution. Similarly, a one-way analysis of variance (ANOVA) was used to parse between and within racial/ethnic group variance in coping. Whether a Student's or Welsh's *t* was used was determined by Levene's tests. Additionally, a one-way analysis of variance (ANOVA) was used to analyze within and between racial/ethnic group variance in coping and perceived stress. Post hoc tests were employed only when statistically significant difference were found. To gain a more complete understanding of the interconnectedness of variables a three way ANOVA was employed to determine if there was an interaction among three independent variables: genreration status, race/ethnicity, and gender on any of the 15 COPE subscales. Additionally, a two way ANOVA was conducted on each of the COPE subscales to determine the main effect of the independent variables, gender, race/ethnicity, as well as the interaction between the two

variables. A Pearson's Product Correlation was computed to determine if significant relationships exist between COPE subscales. Correlations were also conducted to determine significant relationships between perceived stress and COPE subscales. Finally a multiple regression analysis was conducted to determine the predictability of PSS score as the criterion variable with generation status, race/ethnicity, gender and institution as predictor variables.

Research Questions

In an effort to determine the ways in which first generation and continuing generation students who are from different racial/ethnic groups cope with stress, this study explored the following overarching research question:

RQ1 Is there a difference among students in the way they cope with stress by generation status, race/ethnicity, gender or institution?

RQ2 Is there a difference among students in how they perceive stress by generation status, race/ethnicity, gender, or institution?.

RQ3 Is there a relationship between perceived stress and the way students cope with stress?

The dependent variable used in this study was how students cope with stress. A second dependent variable was perceived level of stress. There were four independent variables that were considered in this study. The first independent variable was generational status, (i.e. first generation students or continuing generation students). The second independent variable was racial/ethnic group: six racial/ethnic groups were compared: White, African American/Black, Hispanics of any race, American Indians/Alaskan Natives, Asian, and students of Two of More Races. The third independent variable was gender. The last independent variable in this study was the institution in which students were enrolled (Institution A and Institution B).

16

Definition of Terms

Stress: Psychological stress is a feeling or condition that occurs, "when a person perceives a situation as taxing or exceeding their coping resources" (Lazarus, 1976).

Perceived Stress: the degree to which situations in one's life are perceived as stressful (Cohen & Williamson, 1988).

Coping: "cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141).

First Generation Student (FGS): a student who comes from a family where neither parent/guardian graduated from a 4 year college or university (Giancola et al., 2008; Murphy & Hicks, 2006; Pascarella et al., 2004).

Continuing Generation Student (CGS): a student who has at least one parent who graduated from a four- year college or university (Giancola et al., 2008).

Sociocultural perspective: a perspective which focuses on how the social and cultural environment in which one was raised influences one's behavior, feelings and attitudes as well as their personal development (Vygotsky, 1962/1997; Wade & Travis, 2011).

Cultural racism: racism based on condemnation and belittling of one's racial group (Carter & Reynolds, 2011).

Acculturative Stress: the psychological impact of adaptation to a new culture (Smart & Smart, 1995).

College, post secondary education and higher education: will be used synonymously to designate any four -year college or university.

Panethnicity: grouping all people of the same race or ethnic background together without regard for differences in national origin, language, culture or religion (Okamoto, 2003). For instance grouping Mexican, Puerto Rican, and Spanish individuals as Latino and subsequently making conclusions about Latinos.

Locus of Control: the degree to which a person perceives the outcome of an event is contingent on external influences or is dependent on influences from within oneself (Rotter, 1966).

Assumptions

Several assumptions were made when conducting this study. One assumption was that the racial/ethnic composition of the sample of students used for this study would be representative of the racial/ethnic population at each respective institution as well as the university system as a whole. It was also assumed that by comparing students at that both institutions, data would provide evidence as to whether there is an institutional effect on coping with stress among the sample populations. It was also assumed that data would be recorded accurately.

Limitations of Study

While every effort was made to conduct a study that would be valid and reliable, and that would yield results that may be generalizable to students attending other similar institutions of higher education, this study did have some foreseeable limitations. Since this research was to be conducted at both a midsized and a large university, results may not be generalizable to smaller higher education institutions due to the demographics of those institutions. Additionally, although this study used samples of six different racial/ethnic groups, because this research is using a panethnic categorization of racial/ethnic students, conclusions may not be generalizable

18

to all students within a racial/ethnic category. For instance if data suggest that Asian students respond a particular way to stress, it cannot be generalized to assume that to be true for all Asian subgroups, such as ethnically Japanese, Chinese or Korean students. Also, due to the method used to acquire participants, a selection bias could have occurred as students who participated in this study online could have different coping skills when compared to students who chose not to take this online survey. Another limitation to this research was that since both sample institutions are in the southeast, the results may not be generalizable to students nationwide. Results also may not be generalizable to students attending private colleges or community colleges. Furthermore, due to data collected by self report surveys there may be some reluctance by either gender or racial/ethnic group to report either their perception of stress or how they cope with stress.

Summary of Chapters

This dissertation includes 5 chapters. Chapter 1 introduced the research study and consisted of an overview of the study, problem statement, the purpose of the study, the theoretical framework and the significance of the study. This chapter also included an overview of the methodology- with a description of the assessment instruments that were used, a summary of data analysis, definitions of terms, the over arching research question, assumptions made prior to conducting the study, limitations of the study, an overview of each chapter, and a conclusion. Chapter 2 provides an in-depth review of literature on theories of stress, the impact of stress on college students, factors that either enhance or impede students in higher education. This chapter also reviewed literature on first generation students, continuing generation students, and racial/ethnic minority students; the types of stressors that they are most at risk of experiencing and the ways in which these diverse groups of students cope with stress. Chapter 3 presents the

statistical tests that were used to conduct this study. It also includes the research design, the

sample population, how the sample was acquired, the site where the study took place and the

research questions and hypotheses. It also explains how data was collected and analyzed.

Chapter 4 presents an analysis of the data, including findings for each research hypothesis- with

either an acceptance or rejection of the null hypotheses. Chapter 5 includes a discussion of the

research results and limitations of the study. Also included in chapter 5 are implications for

higher education administrators and counseling center directors, as well as recommendations for

further research in the area of stress and students in higher education.

Conclusion

With an increase in the percentage of first generation and continuing generation students

and racial/ethnic minorities enrolling in higher education, additional research is needed to help

administrators and counseling center directors understand the differences in coping used by these

diverse student populations. Subsequently, this study will add to the body of knowledge about

how students perceived the level of stress in their lives and whether or not there is a relationship

between perceived stress and how students cope with stress.

Although the tendency for most counseling centers in higher education has been to

provide general counseling services without consideration of the diverse needs that may be

present among its students, if it is found that there are differences in coping and perceived level

of stress based on racial/ethnic group or generation status, then counseling center directors may

want to develop programs that are specific to the needs of those student populations.

Subsequently, if programs are offered to help students cope more effectively with stress, then

students' mental health and physical health may be enhanced, as will the likelihood of these

students successfully meeting their educational goals.

CHAPTER TWO: LITERATURE REVIEW

"…there is no more justification for avoiding stress than for shunning food,

exercise or love. " (Selye, 1956, p. 299)

The United States is considered to have one of the most diverse higher education systems

in the world (Murphy & Hicks, 2006). With significant demographic changes over the past

several decades, its institutions boast an increase in diversity among their student population

(Bruininks et al., 2010; Levine, 2001; NCES, 2013). Included in the changing demographics are

more first generation students as well as more racial/ethnic minority students (Forbus et al.,

2011; J. Giancola et al., 2008; NCES, 2013). Simultaneously, with an increase in student

diversity, the contingent of those students with mental health issues has increased—both as a

percentage of the student population and in the severity of their illnesses (Bishop, 2006;

Guthman et al., 2010; Yorgason et al., 2008). In a report presented at the 118th Convention of the

American Psychological Association, Guthman and colleagues (2010) maintained that students

with preexisting mental health issues are receiving more support and are better educated during

childhood and adolescences, and subsequently, they are more prepared to enroll in college.

Current research also indicates that students report experiencing higher levels of stress than have

students in prior decades (Dyson & Renk, 2006; Welle & Graf, 2011). Furthermore, college

counseling centers are reporting that they have seen an increase in the number of students who

seek out assistance at college counseling centers for emotional distress (Guthman et al., 2010).

They also report that they have seen an increase in the number of students who are on psychiatric

medications (Guthman et al., 2010).

Although the student population in higher education has become more diverse, little is

known about the mental health needs of various racial/ethnic groups as well as the resources

needed to help them succeed in college (Hayes et al. , 2011). This has created a challenge for administrators in higher education as they acknowledge that students may have diverse needs for resources to help them cope with their mental health issues, and higher levels of stress (Wei et al., 2010). There is also a concern that the programs and services provided by universities and colleges may not meet the needs of diverse groups of students.

This chapter reviews literature that considers the factors that increase the stress that first generation and racial/ethnic minority groups experience during their tenure in college. Additional consideration will be given to the factors that enhance or impede the ability of these diverse contingents of students to cope with stress and subsequently their ability to succeed in higher education. The goal of this literature review is to provide a foundation for a study comparing the means by which first generation students and continuing generation students of different racial/ethnic groups cope with stress.

Before I begin in earnest, it is worthwhile to consider the use of terms. While ethnicity is a reference that is often used to classify identity within one's nationality and race is based on biological or cultural origin, Grosfoguel (2004) considered the traditional distinction differentiating racial and ethnic groups as problematic. Recognizing that there are racialized and/or ethnicized races, he suggests that the use of racial/ethnic groups rather than using the term racial and ethnic as separate or autonomous categories is the more appropriate terminology (Grosfoguel, 2004). Aranda and Rebello-Gil (2004) concur with Grosfoguel (2004) that race and ethnicity should not be separated as social constructs. In their study on ethnicity and racism they explained that although phenotype has in the past indicated race, more recently the social construction of race has involved ethnic and global dimensions which include national origin, language, religion, culture, and race (Aranda & Rebello-Gil, 2004). As such they use the term

ethnoracism in their study of how minorities experience racism due to their national origin, culture, and race. Therefore this research uses the term racial/ethnic groups to include all participants belonging to different racial and ethnic groups.

By considering students' demographic characteristics such as generation status, race/ethnicity, and gender this study used the theoretical framework of the sociocultural perspective. Looking through the sociocultural lens the reader will be afforded a more comprehensive understanding of how the environment in which students are raised impacts their ability to adapt to the demands of college. This framework will also provide a better understanding of the effect that one's cultural/social/environmental background has on a students' physical and mental well being, and subsequently, their likelihood of achieving their academic goals.

Theoretical Framework

Understanding the factors that contribute to one's physical and mental health is a complex process. However, the sociocultural perspective enhances one's understanding as it considers the influence that a person's social and cultural background, and demographic characteristics have on his/her personal development (Vygotsky, 1962, 1997). Subsequently this chapter will examine literature that will give insight into social and cultural factors which may influence stress and coping among different racial/ethnic students, students of different generation statuses, as well as different genders. Vygotsky initially developed this framework in working with the cognitive development and language acquisition of children. Prior to Vygotsky, Jean Piaget (1964) considered by most to be the leading theorist on cognitive development, developed a theory in which he maintained that the progression of a child's cognitive abilities is determined by their age. For instance, Piaget (1964) believed that one's imagination, language,

23

and thinking all surfaced at specific ages, progressing from symbolic thinking, to tangible

representations of their experiences and finally to more abstract thinking. This theory of

cognitive development involved what many believed to be rigid age parameters in which Piaget

asserted that certain abilities were either present or were lacking (Rogoff, 2003). However,

Vygotsky (1962/1997) argued that stages of cognitive development were influenced not only by

age related changes, but also by the environment in which a person was raised and the

experiences that his/her culture made possible for him/her. As Rogoff (2003) would say years

later, "People develop as participants in cultural communities. Their development can be

understood only in light of the cultural practices and circumstances of their communities which

also change" (pp. 3-4). Although other studies were conducted on developmental issues, most

theories focused solely on aged-related changes akin to the theory of Piaget. Not until Vygotsky

proposed the influence of sociocultural aspects on individuals was an emphasis placed on the

context in which a person was raised (Kozulin, 2003). Vygotsky (1962/1997) maintained that to

ignore the subjective experiences of individuals limits one's understanding of a person's

behavior.

　　　　While the influence of one's cultural background has more recently been acknowledged

by many disciplines, there are still some fields that have been slow to consider the importance of

one's environment (Rogoff, 2003). Education is one such discipline that has been slow to adopt

the influence of one's culture due to the monocultural environment of the classroom (Kozulin,

2003). However, educators have become more cognizant of the importance of considering the

impact of one's cultural background as the reality of multicultural classrooms has become

ubiquitous in schools (Kozulin, 2003). Another area within the field of education that has been

reluctant to adopt the sociocultural perspective is in the construction of standardized tests (Moss,

Pullin, Gee, & Haertel, 2005). While the use of standardized testing has increased in recent years, and at the same time the number of ethnic minorities enrolled in schools has increased (Compton-Lily, 2009), the cultural background of those students who take standardized tests has rarely been taken into consideration (Moss et al., 2005). Subsequently, students who are racial/ethnic minorities face barriers that may impede their test performance (Moss et al., 2005). Curriculum is another area within education that has neglected the consideration of cultural background with schools adopting "state mandated one-size-fits-all curriculum" (Tatum, 2000, p. 55) which fails to give students of color the opportunity to read texts that reflect their culture. Thompson, Johnson-Jennings and Nitzarim (2013) assert that there is a need for additional research that focuses on cultural factors that are related to minority students' persistence in higher education.

Another discipline that was slow to consider the culture in which one was raised was the field of psychology (Cokely et al., 2011; Stanton-Salazar, 1997). Mainstream psychology has traditionally been negligent in its efforts to understand distinct factors among people of different cultural backgrounds. Furthermore, in the past, mental health research has deemphasized the impact that one's cultural and social environment has on mental health and subsequently research on racial/ethnic groups has been limited (Banks & Kohn-Wood, 2002; Cokely et al., 2011). Research has also lacked depth in the understanding of different racial/ethnic groups due to small numbers of racial/ethnic participants in most studies (Carter & Reynolds, 2011) and with little attention given to sub groups within major ethnic groups (Myers, 2009). For instance, when comparing Asian individuals, Chinese, Japanese and other Asian subgroups are grouped together. Furthermore, in many studies group comparisons are often among White, Black/African Americans, and Others- grouping all students of color other than African

Americans into one group. Additionally, studies that have been conducted on racial/ethnic groups have utilized symptom checklists that were not developed with consideration of minority populations (Cokely et al., 2011).

More recently the sociocultural perspective has enhanced the understanding of behavioral and psychological issues of people from different racial/ethnic backgrounds (Rogoff, 2009). For instance, in their examination of identity formation Penuel and Wertsch (1995) concluded that cultural resources have a significant influence on the development of one's identity. In tandem with Erik Erikson's Psychosocial Theory of Development (1950/1963), Penuel and Wertsch (1995) believed it is a person's experiences with their environment that shapes their identity. Furthermore, Penuel and Wertsch (1995) stated that identity formation entails interdependence among cultural resources, individual choices and individual psychological functioning.

In his writing on adolescent identity development among Black adolescents, Parham (1989) speculated that teenagers from different home environments would start nigresence, (Black identity development) from different vantage points. He explained that adolescents are more likely to view their world from a pro-black orientation when they live in a predominately Black environment and are raised by parents whose racial attitudes are more Afrocentric (Parham, 1989). Ethnic identity resolution is essential for healthy identity development and conversely low resolution of ethnic identity may result in placing individuals at risk for experiencing negative consequences in relation to perceived stress (Parham, 1989). Furthermore, negative ethnic identity strengthens the relationship between general life stress and depressive symptoms. Lorant et al. (2007) add that low socioeconomic status is consistently associated with higher rates of depression.

26

The sociocultural perspective developed by Vygotsky is considered to be a more comprehensive approach to understanding human processes than traditional developmental theories that focus primarily on age related changes (Pamental, 2010). Considering the social and cultural background of students may also give a better understanding of the means by which diverse groups of students cope with stress.

Theories of Stress

Although many studies have been conducted in an effort to understand the effect stress has on individuals (Brougham et al., 2009; Clark, 2005; Pedersen, 2009), most theorists agree that stress is something that is unavoidable in one's life (Selye, 1956; Welle & Graf, 2011). Selye, considered by many to be the pioneer of the study of stress (Hill-Rice, 2012) defined stress as "the wear and tear on the body due to demands placed on it" (Selye, 1956, p. 311). His theory asserts that when a person is confronted with stressors the body responds in a general/nonspecific way, no matter what the stressor. Moreover, he maintains that if the stress becomes prolonged, the constant wear and tear on the body makes a person more vulnerable to illness (Selye, 1956). Selye's theory of stress would become the framework from which other theories of stress would build.

Also interested in the effect that stress has a person's health, Holmes and Rahe (1967) conducted a study to assess how life change events affect stress and subsequently one's health. Holmes and Rahe (1967) defined life change events as those events in a person's life that require adaptation or change. They suggested that the more life change events one experienced within a year, the more vulnerable a person was to illness (Homes & Rahe, 1967). They also maintained that it was the cumulative effect of multiple stressors that put a person at a higher risk of becoming ill. Therefore, in an attempt to understand the relationship of life events that require

adaptation to stress and illness, Holmes and Rahe constructed a stress assessment tool which they referred to as the Social Readjustment Rating Scale (SRRS). Their contention was that the more events a person experiences within a year, events that require change or adaptation, the higher their stress level will be and subsequently the more vulnerable they will be to illness (Holmes & Rahe, 1967). Homes and Rahe (1967) concurred with Selye that stress makes one more vulnerable to illness.

Thirty years after Holmes and Rahe developed the Social Readjustment Rating Scale (SRRS), Scully, Tosi and Banning (2000) were interested in determining if this assessment tool was still a reliable instrument that could be used to predict stress related symptoms and one's risk of illness. Addressing content related criticism of the SRRS, Scully and colleagues (2000) sought to determine whether there was a difference in the impact of desirable vs. undesirable events and controllable versus uncontrollable life events. In a two-phase study, researchers surveyed participants asking them to rate the degree of adjustment necessary for each life event on the SRRS (Scully et al., 2000). Three life events were modified to update the scale. Two of these items addressed monetary issues and were adjusted for inflation. The third item was related to work and the term wife was changed to spouse. The first phase of the study included 200 adult residents of the state of Florida who were selected through a random cold call random-digit dialing process. Only residential phone numbers were used in the sample in this phase, which included 42% male and 58% female participants. The second phase of the study used a convenience sample of 188 graduate business and nursing students. This sample consisted of 56% male and 44% female subjects. Results indicated that regardless of the type of stress, controllable, uncontrollable, desirable, or undesirable, events that occurred more recently (within the past 12 months) were more closely related to stress symptoms (Scully et al., 2000). The

researchers concluded that the number of life change events were still useful predictors of the degree of stress in one's life and consequently one's vulnerability to illness (Scully et al., 2000). After years of enduring criticism that the SRRS was not a valid assessment tool for measuring stress related outcomes, data supported the assertion that it is a valid assessment tool and subsequently it continues to be the most frequently used scale for predicting stress related health outcomes (Scully et al., 2000).

Lazarus, another influential voice in the study of stress, developed a cognitive theory of stress which states that it is not the actual event that causes a person stress, rather it is the person's perception of the event that determines whether an event would be considered stressful (Lazarus, 1976). Lazarus (1976) contends that "stress occurs when there are demands on the person which tax or exceed his/her adjustment resources" (p. 47). When a person faces a situation that he/she perceives as threatening to his or her ability to cope – it is then that the person is more likely to experience stress.

While Lazarus agreed with Selye that stress impacts both health and wellness, he also agreed with Holmes and Rahe who maintained that events which result in a person having to adapt may cause stress in one's life and subsequently may make them more vulnerable to illness (Lazarus, 1976). Lazarus' (1976) theory proposed that there is an essential factor that influences the impact that events have on a person's life- that factor is one's appraisal or perception of the event. In other words, a single stressor experienced by two individuals could result in one person being negatively affected while another person is invigorated by the event. Stress is contingent on each person's perception of the situation. After making an initial assessment of whether something is stressful or not, the person will then assess the options and resources with which he/she has to cope with the stressor (Lazarus, 1976). The more resources a person has available

to cope with stressors the less of an impact the stressors will have on him or her (Lazarus, 1976). Lazarus (1999) also contended that the anticipation of a threat may produce more harmful effects than the actual confrontation with the stressor. Billings and Moos (1984) and Hystad et al. (2009) agreed with Lazarus that it is both the appraisal of events and the appraisal of one's coping resources that determine the impact of potentially stressful events. In later research, Lazarus (1999) conceded that not all stressful situations can be resolved; rather, there are times when stress needs to be managed.

Concurring with Lazarus' theory that one's appraisal of an event will determine whether or not someone will experience that event as stressful, Cohen et al. (1983) maintained that there was a lack of psychometric instruments which measure how one perceives different events in their lives. Subsequently, asserting the significance of the subjectivity of stressors as opposed to the objectivity of stressors, they developed the Perceived Stress Scale (PSS), which measures how one's perception influences the levels of stress which they experience (Cohen et al., 1983). They hypothesized that a comprehensive assessment of perceived stress could contribute valuable information linking stress to illness (Cohen et al., 1983).

To better understand how college students cope with stress it is important to consider the diverse factors that influence their coping abilities (Phinney & Haas, 2003). Coping, as defined by Lazarus and Folkman (1984), involves "cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among them" (p. 223). They added that the impact of stress involves a conflict between demands that one is confronted with and the resources with which one has to cope with such demands (Lazarus & Folkman, 1984). Therefore, the more resources one has to cope with stress, the less of a negative impact the stress will have on the person. Additionally, when confronted with stress, if a person feels they have no

control over the situation, they may develop a sense of helplessness, which can negatively effects their motivation to cope with the stress (Lazarus & Folkman, 1984).

While one's perception of an event influences whether or not something is perceived as being stressful (Lazarus, 1976), the ability to cope with stress is also contingent on a person's perception of their ability to cope (Lazarus & Folkman, 1984; Palmer & Rodgers, 2009; Phinney & Haas, 2003). This is congruent with Bandura's (1977) theory of self-efficacy. Bandura emphasized that the motivation to cope with stress is dependent on the perception of one's control over their situation. Self-efficacy impacts whether one will initiate coping behaviors and how much energy they will exert to cope with the stress (Bandura, 1977). Bandura (1977) posits, "An outcome expectancy is defined as a person's estimate that a given behavior will lead to certain outcome (p. 193). Subsequently, if a student does not perceive they have the skills or resources that will effectively help them cope with their stress, they are less likely to try to overcome the stress and they are more likely to use avoidant coping skills (Bandura, 1977).

This tendency to give up or avoid trying is what Seligman (1975) referred to as learned helplessness. Learned helplessness occurs when a person gives up trying because their perception is that no matter what they do the outcome of the situation will not be improved (Seligman, 1975). Furthermore, one's perception of the stressor coupled with their perception of their coping abilities will also influence whether or not a person exhibits physical or emotional symptoms that are a result of stress (Hale, Greensberg, & Ramsey, 1990). When individuals have high levels of stress and anxiety they tend to perceive their options as more limited compared to when they have lower levels of stress and anxiety (Lazarus, 1999; Lazarus & Folkman, 1984; Smart & Smart, 1995).

31

Much of the subsequent research that has been conducted on stress has focused on the impact that stress has on both one's physical and mental health (Hicks & Hastie, 2008; Holahan, Moos, Holahan, Brennan, & Schutte, 2005; Mostafaei, 2012; Pedersen, 2009). Interestingly, in 2000, after decades of working with medical patients and assessing the effect stress had on their lives Rahe acknowledged that stressful life events do not necessarily result in illness (Rahe, Veach, Tolles, & Murakami, 2000). Rahe and colleagues found that there were factors which contribute to one's vulnerability to illness. Those factors included gender, marital status, age, financial status, as well as one's coping skills; all potentially influence the outcome of one's stress (Rahe et al., 2000).

Stress and Students in Higher Education

College is considered by many to be a transitional time in life that provides students with opportunities for growth (Hicks & Heastie, 2008) and welcomed independence (Arnette, 2000; Welle & Graf, 2011). However, it is also considered to be a period of life that includes self-doubt (Hicks & Heastie, 2008) pressure, and increased levels of stress (Barry, Hudley, Kelly, & Cho, 2009; Hale et al., 1990; Hyad et al., 2009). According to the Higher Education Research Institute (2013), in their annual nationwide survey of students after their first year of college, students reported having a difficult time developing effective study habits, adjusting to the demands of coursework and managing their time. Stress for many students seems ever present while they are enrolled in college, and consequently they often report having difficulty falling asleep, experiencing fatigue, having an inability to concentrate, and having feelings of being overwhelmed (Welle & Graf, 2011). The prevalence of these symptoms supports previous research, which maintains the link between physical health and stress (Chemers, Hu, & Garcia, 2001; Folkman & Lazarus, 1984; Holmes & Rahe, 1967; Welle & Graf, 2011). Although at

times stress may manifest itself in physical symptoms, students often don't make the connection between their stress and symptomology - subsequently bypassing the root of the problem to eliminate symptoms (Dyson & Renk, 2006; Hale et al., 1990; Phinney & Hass, 2003; Welle & Graf, 2011). At times students choose to eliminate the symptoms through the use of substances such as alcohol and drugs, which Wells and Graf (2011) emphasize is not an effective way to cope with stress and may in fact increase their level of stress. Although some students have the notion that substances such as drugs or alcohol can help them cope with their stress, data provide evidence that students who use substances to deal with their problems suffer more from physical ailments that are related to stress than those who do not resort to the use of substances to cope with their problems (Welle & Graf, 2011).

While many students who enroll in college are successful in managing their transition into college, some students have greater difficulty balancing their new degree of autonomy with the academic and social demands with which they are confronted (Chemers et al., 2001; Huynh & Fuligini, 2012). In their theory of student development, Chickering and Reisser (1993) address the complexity of this transitional period that students face as they progress from adolescence to adulthood, moving from emotional dependence on parents, to interdependence on peers and support systems from within institutions. This transition also includes an acceptance of a decreased dependency on parents to an increase in self-sufficiency (Chickering & Reisser, 1993). For some students this is a welcomed time of gaining autonomy from parents and expanding their social networks. However, some students may experience an amplified sense of anxiety due to separating from family and friends, adjusting to a new learning and social environment, and assuming the responsibility of managing their own finances (Hicks & Miller, 2006). The compound effect of multiple stressors may make adjusting to college even more difficult for

some students (Dysen & Rank, 2006). Additionally, students may experience anxiety as a result

of developmental and identity issues as they struggle with questions asking themselves who they

are and how they fit in with their peers (Erikson, 1963). This heightened level of stress often

manifests itself in both behavioral and physical symptoms (Chemers et al., 2001; Hale et al.,

1990) and has been associated with a deterioration of students' mental health (Hystad et al.,

2009).

Compared to students in previous generations, students today may contend with more

factors which exacerbate their level of stress. The recent economic downturn of 2008 has been

found to influence the impact of stress among college students (Holley & Harris, 2010). Prior to

the recession, which began in December 2007, students felt optimistic about their future and

future job prospects upon graduation (Debard, 2004; Pascarella et al., 2004). However, for many,

that optimism has been replaced by feelings of uncertainty, stress and pessimism about future job

prospects (Eisner, 2010).

With questions about how the 2008 economic downturn has impacted the amount of

stress in college students today, Guo, Wang, Johnson, and Diaz (2011) conducted a study using

560 undergraduate students to assess their perception of economic stress. The authors found that

college students have an increased level of stress due to the economic downturn, with

particularly high levels of concern about future employment possibilities (Guo et al., 2011).

While there was found to be no significant difference in perception of economic stress between

genders, class level did influence perception, with graduating seniors having the highest amount

of perceived stress (Guo et al., 2011). This may be due to the fact that many college seniors are

simultaneously faced with the challenge of becoming employed upon graduation, and the reality

of having to pay back college loans. These findings are in direct opposition to the confidence

students in higher education expressed prior to the recession (Guo et al., 2011). Furthermore, the economic downturn of 2008 and the subsequent decrease in federal and state funding for higher education has placed an added financial burden on the shoulders of students and their parents due to a perpetual increase in tuition and fees (Doyle & Delaney, 2009). This has widened the gap between the cost of attaining a college education and what students and their parents can afford to contribute financially (Lindsey et al., 2011). Furthermore, this has created additional challenges for those who depend on government financial aid programs which afford them the opportunity to enroll in higher education (Berg-Cross & Green, 2010; Metha et al., 2011). Financial difficulties have also contributed to an increased need for students to take out private loans at higher interest rates (Berg-Cross & Green, 2010). Therefore, students are incurring higher amounts of debt while in college resulting in the reality and at times hardship of paying back student loans once they leave higher education - whether or not they graduate from college and get jobs (Berg-Cross & Green, 2010; Lindsey et al., 2011). Consequently, personal finance challenges bring about an increase in stress for many students seeking higher education (Berg-Cross & Green, 2010; Guo et al., 2011; Pascarella et al., 2004).

Because first generation students, as well as racial/ethnic minority students, are more likely to come from low-income families, they are more likely to experience economic stress (Forbus et al., 2011; Myers, 2009; Welles & Graf, 2011). With research that has been consistent over three decades, Butts (1979) and Myers (2009) assert that there is a relationship between economic stress, minority status, and health. Consequently, they contend that low-income populations are at an increased risk for having physical as well as mental health problems as a result of financial stress (Butts, 1979; Myers, 2009). In contrast, in a longitudinal study of psychological stress over three times periods -- 1983, 2006, and 2009 -- Cohen and Janicki-

Deverts (2012) argued that when adjustments were made for other demographic variables, in times of economic challenges the difference in the level of stress among racial/ethnic groups was not significant. However, they did maintain that the groups that were most likely to experience stress were females and persons of lower SES (Cohen & Janicki-Deverts, 2012). This could be due to their financial stability being threatened. It is also important to note that while college graduates still have lower unemployment rates than those without a college education, today's students are faced with the reality of higher unemployment among college graduates since the recession of 2008 (Eisner, 2010). In a 2009 survey by the National Association of College and Employers, 91% of employers reported that they planned on hiring fewer college graduates in the upcoming year (Eisner, 2010).

Therefore, with challenges that may be due to lower economic status, the issue of affording the rising cost of higher education, a skepticism of future employment opportunities, mounting debt and the reality of loan repayment, compared to continuing generation students (CGSs), FGSs tend to have higher levels of stress that is related to financial concerns (Doyle & Delaney, 2009; Myers, 2009; Forbus et al., 2011; Welles & Graf, 2011). Consequently, stress impedes multiple facets of the lives of students in higher education.

The Impact of Stress on Students

Just as there are diverse factors that influence the stress that students experience during their tenure in college, the impact that stress has on students also manifests itself in diverse ways. Stress takes a toll on students' mental health, physical health (Pedersen, 2012; Welles & Graf, 2011) as well as academic performance (Brougham et al., 2009; Renk & Smith, 2007; Hicks & Heastie, 2008).

Stress and Physical Health

Ample evidence maintains the link between stress and physical illness (Holmes & Rahe, 1967; Hystad et al., 2009; Pedersen, 2012; Selye,1956; Welles & Graf, 2011). Jason, Fennel and Taylor (2003) assert that both stress and how one copes with stress may compromise the immune system, making one more vulnerable to illness. Furthermore, the addition of numerous stressors at once may compound the effect that stress has on a person. Pedersen (2012) addressed the impact of multiple stressors with a focus on the spillover effect of stress. The spillover effect occurs when stresss from one area of a person's life causes stress in another area of his/her life (Pedersen, 2012). In an effort to determine if a relationship exists between school and family stress and physical and mental health outcomes, Pedersen (2012) conducted a study using a stratified random sample of 268 undergraduate students at a Midwestern University. She hypothesized that the spillover effect of multiple stressors such as work, family and financial stressors, in addition to academic stress, create conflicting demands for a student's time and energy and subsequently, may result in physical illness. In this study students completed an anonymous online survey, known as the College Stress Survey, developed by Pedersen (2012). Results supported Pederson's hypothesis, with both males and females reporting a greater negative impact from school spillover than from family spillover. In other words, the stress of school has more of an impact on family than family stress has on school. She also found there to be gender differences as well (Pedersen, 2012). For males, there was a negative correlation between family spillover and sleep. However, women reported a negative correlation between school stress spillover and sleep (Pedersen, 2012). In other words, female students lost more sleep over academic stress, whereas males reported a loss of sleep over family stress. Pedersen (2012) also found a relationship between the effects of "spillover" stress to mental health for

both males and females. Differences in perception of stressors was found between genders as females reported being more stressed than males by challenges of academic rigors, family problems and financial issues (Hicks & Miller, 2006). Additionally, female students reported having higher incidences of psychological issues, yet they were also more likely than males to seek out help with physical or psychological problems (Hicks & Miller, 2006). Findings were consistent with more recent studies, which suggest that females report higher levels of stress than do males (Bouchard & Shih, 2013; Lindsey et al., 2011).

Stress and Mental Health

While stress itself is not a psychological disorder, it has been found to be a significant trigger to the onset of psychological symptoms that are present in many disorders (Jason et al., 2003). Similarly, stress can exacerbate the symptoms of mental illness as well as trigger relapse of mental disorders (Mostafaei, 2012). With the number of students enrolling in higher education continuing to increase (NCES, 2011), the number of students with existing mental health issues is also increasing (Bishop, 2006; Yorgason, Linville, & Zitzman, 2008). Previous literature substantiates the negative relationship between stress and mental health (e.g. Holahan et al., 2005; Hystad et al., 2009; Roth, Wiebe, Fillingim, & Shay, 1989). Furthermore, Pieterse and Carter (2007) assert that general life stress has a strong negative correlation to psychological health and well being.

Acknowledging conflicting reports of whether there has been an increase in the severity of mental health problems experienced by college students, Benton et al. (2003) conducted a study spanning thirteen years, with 13,257 student participants who sought mental health counseling while in college. Data were collected at three time intervals to determine if there was a significant increase in any client problem areas. Results indicated that between the first sample

and the last, 14 of the 19 client problems increased (Benton et al., 2003). Most notable was an increase in stress/anxiety by 26.61% over the 13 years (Benton et al., 2003). Data also indicated that the rate of students who sought counseling for depression doubled and those who sought counseling for suicide ideation tripled during the same time period (Benton et al., 2003). Brougham et al. (2009) and Galagher (2000) concur, adding that that there has been a substantial increase in the rate of anxiety disorders and stress among college students. Furthermore, Meadows, Brown and Elder (2006) noted that elevated levels of stress often result in depressive symptoms among students. Additionally, when considering demographic differences among research participants it was found that although ethnic group participation in this study was similar to the ethnic student proportion on campus, minority students comprised a higher degree of the counseling client population (Benton et al., 2003). More recently, Guthman et al. (2010) corroborated data which confirmed the increase in both the number of students enrolling in higher education with preexisting mental health issues, and in the severity of emotional stress.

Interested in the relationship that stress has to several mental health variables, Ciarrochi, Deane, and Anderson (2002) conducted a cross-sectional study using 302 university students to determine if a relationship exists between stress and reports of depression, suicide ideation and hopelessness. Their study used several research tools including; the Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981) the Life Experiences Survey (Sarason, Johnson, & Siegal, 1978), Suicide Ideation Questionnaire (Reynolds, 1988), The Beck Depression Inventory (Beck, Steer, & Brown, 2000), and the Beck Hopelessness Scale (Beck, Weissman, Lester, & Trexler (1974), to assess if relationships exist between these factors. Regression analyses of data revealed a relationship between stress and reports of these three mental health variables. The

more stress a person experiences in college the higher is their rate of depression, hopelessness and suicide ideation.

Concurrently, Ciarrochi et al. (2002) wanted to assess whether emotional intelligence (a person's ability to regulate their own and other feelings) would temper the impact that stress has on one's mental health. Surprisingly, the authors found that those with lower emotional intelligence reported lower levels of depression, hopelessness, and suicide ideation than did those higher in emotional intelligence (Ciarrochi et al., 2002). They maintained that this may be attributed to the fact that those low in emotional intelligence are less likely to perceive themselves as being depressed, hopeless or having suicide ideations (Ciarrochi et al., 2002). Stress not only affects the physical and mental health of students, it also has a significant influence on how students perform academically (Dysen & Renk, 2006).

Stress and Academic Performance

The effect that stress has on students' performance and persistence in their academic pursuits is another concern of stakeholders in higher education (Prescott, 2008). Stress not only affects the physical and mental health of students, it also has a significant influence on how students perform academically (Dysen & Renk, 2006). With a focus on improving retention rates among students in post-secondary education, administrators have become cognizant of the literature that provides evidence of the relationship between stress and poor academic performance (Renk & Smith, 2007; Struthers et al., 2000). Hicks and Heastie (2008) suggest that stress and academic performance are interconnected for most college students, with stress that is predictable due to academic pressures such as: papers, exams, time management issues and, for many students, financial concerns. While stress for some may be a motivating factor which leads to better study habits, data indicate that there is a negative correlation between stress and

40

academic success (Dysen & Rank, 2006; Struthers et al., 2000). The higher students' academic stress the lower their grades tend to be. Furthermore, in a survey conducted by the American College Health Association (2013), students reported stress to be the factor that had the greatest negative impact on their academic performance. This was more than the negative impact that physical ailments, sleep difficulties, alcohol use, computer games and depression had on how students performed academically.

However, Zajacova et al. (2005) asserted that while stress is negatively correlated to academic success, self-efficacy is a better predictor of academic success. They added that there is a positive correlation between self-efficacy and academic success: the higher a student's self-efficacy, the higher the likelihood of academic success. Furthermore, they maintained that stress has a more profound effect on subsequent enrollment than it has on GPA or on credits earned (Zajacova et al., 2005). Mostafaei (2012) posits that in order to enhance mental health as well as behavioral outcomes there is the need to have a better understanding of how people cope with stress in order to be able to provide resources that help them cope effectively.

First Generation and Continuing Generation Students

Not only has the number of first generation students (FGSs) increased in the past several decades, it is predicted that the number of this contingent of students will continue to grow (J. Giancola et al., 2008). Furthermore, research consistently has reported that generation status significantly affects the experiences of students in higher education with FGSs being at a clear disadvantage compared to continuing generation students (CGSs) (Murphy & Hicks, 2006; McMurray & Sorrells, 2009; Pascarella et al., 2004; Stebleton, Soria, & Huesman, 2014; Terizini et al., 1996). Stephens, Fryberg, Markus, Johnson, and Covarrubias (2012) boldly assert that there is a cultural mismatch between FGSs and higher education resulting in an achievement gap

between FGS and CGS. They explain this cultural mismatch stating that, "first generation students underperform because interdependent norms from their mostly working-class backgrounds constitute a mismatch with middle-class independent norms that are prevalent in universities" (Stephens et al., 2012, p. 1,178). Consequently, FGSs have higher attrition rates than CGS (Barry et al., 2009; Ishitani, 2003). It is important to note that the abundance of literature that has compared first generation to continuing generation students has focused on differences between these students groups, with a primary focus on factors which impede the academic success of first generation students. However, there has been a lack of research focused on factors with which continuing generation students may have to contend due to their generation status.

Although FGSs are faced with many of the same issues and anxieties that CGSs face, they also have unique factors that may impede their transition into the academic community and that may challenge their ability to be successful in their academic pursuits (Forbus et al., 2011; Ishitani, 2003; McMurray & Sorrells, 2009; Mehta et al., 2011). These issues include, but are not limited to, the degree of social support they receive from family and friends, their academic preparedness, socioeconomic status, and obligations beyond their academic responsibilities (J. Giancola, Munz, & Tares, 2008).

Generation Status and Social Support

The literature consistently maintains that the transition to college poses a myriad of challenges to most students (Hicks & Miller, 2006; Settersten & Ray, 2010; Smith & Renk, 2007). One such challenge involves a change in students' social network, which may result in a weakened support system (Bland et al., 2009). This lack of social support may intensify stress for students if they do not have the emotional support in place to help them cope with the stressors

they face (Welle & Graf, 2011). Research on college students has minimized the importance of socialization factors on how students adjust to the college environment, as well as how they cope with the stress that confronts them (Stanton-Salaza, 1997). However, the importance of one's social support in college should not be understated. The quality of one's support network can either augment or impede one's adjustment to college (Terenzini et al., 1996), academic success (Phinney & Haas, 2003), as well as psychological well being (Wang & Castaneda, 2008). This support often serves as a buffer to the effect stress has on students (Halpern, 2005). However, as Pedersen (2012) notes, at times stress in the college student's life may be a result of family stress, at which time students must depend on other types of social support- primarily their peers.

Generational status has been found to influence how much support a student may receive as they pursue higher education (Forbus et al., 2011; Ishitini, 2003; Pascarella et al., 2004; Terizini et al., 1996). Students who were raised in a family that did not have at least one parent/guardian graduate from college face different challenges than students who were raised in a family with at least one college educated parent (Barry et al., 2009; Pascarella et al., 2004). In terms of support from family, compared to CGSs, FGSs tend to lack encouragement from their family in their decision to attend college (Terenzini et al., 1996; Wang & Castenda, 2008). They also tend to lack guidance from their parents in choosing a college (Has-Vaughn, 2004). In a study measuring the differences in social support between first generation and continuing generation students, Wang and Castaneda-Sound (2008) administered the Social Support Appraisals (SS-A) (Vaux et al., 1986) to 367 students from a large public university. The sample was taken from a random sample of 2,000 undergraduate students by email, inviting them to participate in the study. The SS-A is an assessment tool used to measure the degree to which students perceive they are supported by friends and family. Results showed a negative

correlation between perceived social support and students' level of stress (Wang & Casteneda-Sound, 2008). Students who perceived they received high levels of support from family and friends experienced lower levels of stress.

FGSs are not as likely to socialize with friends (Murphy & Hicks, 2006) and are less likely to seek out social activities to cope with stress than are CGSs (Mehta et al., 2011). In a study of college freshmen and their propensity to disclose college related stress, FGSs were less likely to share stressful information with others and were less likely to seek out professional help to do so than were CGSs (Barry, Hudley, Kelly, & Cho, 2009). Cognizant of the lack of emotional support that FGS may experience, administrators in higher education acknowledge that there is a greater need by FGSs to have support from faculty and advisors (Hahs-Vaughn, 2004). Supportive relationships from faculty can contribute to positive outcomes for students who otherwise do not have strong social capital (Halpern, 2005). FGSs also tend to receive less encouragement to continue their quest for a college degree from friends who are not pursuing higher education (Terenzini et al., 1996). However, when FGSs perceive they have the support of their friends they have fewer psychological symptoms (Wang & Casteneda, 2008).

FGSs also have a deficit in guidance and information from their parents that would help prepare them for their college experience (Hahs-Vaughn, 2004; Holland, 2010; Mehta et al., 2011; Stephens et al., 2012). Therefore, FGSs may feel a dissonance between their desire to pursue higher education and the lack of understanding and support they receive from their parents (Hahs-Vaughn, 2004; Holland, 2010). Mehta et al. (2011) suggest that this perceived lack of support may be due to the expectation of parents that FGSs should get a job that would allow them to contribute financially to the family. Consequently, FGSs are more likely to leave school due to financial pressures (Mehta et al., 2011).

44

Researchers posit that students who reported a lack of social support also reported experiencing a high degree of stress and feeling less success in dealing with stress (Halpern, 2005; Phinney & Hass; 2003). The likelihood of positive outcomes in higher education is enhanced when students receive support from not only their families, but from friends and employers as well (Zepke & Leach, 2010). Furthermore, students who seek out help in dealing with stress at their college counseling centers report support as the most effective coping strategy (Phinney & Hass, 2003). Subsequently, social support has been found to play a significant role in how students transition into college and how they cope with issues they confront while in college (Renk & Smith, 2007; Wang & Castaneda-Sound, 2008).

The effect of early social influence on stress exposure influences one's vulnerability to long term patterns of psychological well being (Adkins, Wang, Dupre, Van den Oord, & Elder, 2009). The literature provides copious evidence of a disparity that exists between the college experiences of students from different generation statuses and socioeconomic classes, including but not limited to: college preparedness, college choice, as well as academic success in higher education (Mehta et al., 2011; Pascarella et al., 2004; Terenzini, 1996)). An additional concern about FGSs' is that of academic performance and persistence in higher education (Ishitani, 2003; Prescott, 2008).

Generation Status, Academic Preparedness and Socioeconomic Status

Researchers assert that FGSs are more likely to come from families from lower socioeconomic status, given the strong relationships between years of education and factors such as income and occupational prestige (Chen & Caroll, 2005; Heaney et al., 2009; Terenzini et al., 1996). Considering that FGSs typically come from families who have less disposable income, they are more likely to be dependent on student loans and grants (Mehta et al., 2011). Finances

influence not only how a student will fund their education, one's economic status also has an impact on academic preparedness for college, as well as how well one performs once enroll in higher education (Holland, 2010).

While public education institutions have made a concerted effort to provide quality education to all students regardless of financial background, there still exists a disparity in the quality of education that students from different socioeconomic groups receive (Holland, 2010). Since FGSs are more likely to come from lower socioeconomic families, they are more likely to attend lower performing primary and secondary schools (Hahs & Vaughn, 2004; Ishitani, 2003). Therefore, they are also more likely to enter college with less academic preparedness than students who are from families of higher socioeconomic status (Hahs & Vaughn, 2004; Stephens et al., 2012). The literature provides substantial credence to the degree to which academic preparedness impacts academic success of students (Holland, 2010). In a study designed to examine how academic preparedness effects students' performance in higher education, Holland (2010) conducted a qualitative study consisting of interviews and brief surveys with 50 undergraduate students who were enrolled in a four-year university with a predominantly African American student population. Data indicate that students who come from an environment that lacks both college planning and a strong academic foundation enter college at a disadvantage and are less likely to graduate from post-secondary education (Holland, 2010; Stephens et al., 2012).

Another study on the effect that college preparedness has on academic success was conducted by Hahs-Vaughn (2004). This study analyzed existing data from the Beginning Postsecondary Students Longitudinal Study and examined the differences between FGSs and CGSs and the influence of academic preparedness on their success in college. Using data from a national database that was representative of first generations students allows for greater

generalizability of results. Results indicated that FGSs had lower entrance scores, which is one indicator of college readiness, and FGSs aspire to lower college aspirations than do CGSs (Hahs-Vaughn, 2004). Due to a lack of college preparedness, once they begin in higher education, FGSs have a greater need for mentoring and additional academic support in order to enhance their likelihood of succeeding in their academic pursuits (Hahs-Vaughn, 2004).

FGSs also have fewer connections to human and social capital that would be beneficial to them as they seek to pursue higher education, than do CGSs (Holland, 2010). Without growing up in a household with a parent who graduated from college, FGSs are at a clear disadvantage as they tend to lack the knowledge and understanding about college choice, college admissions, the culture of college, as well as insight into the demands that the rigors of academics may impose on them (Pascarella et al., 2004; Phinney & Haas, 2003). Another factor that may influence how well a student performs academically is the amount of obligations he or she has beyond their academic responsibilities (Terenzini et al., 1996). An additional responsibility that many students have is outside employment.

Generation Status and Employment

FGSs often have to contend not only with academic stress, but they may have to cope with additional family and work related stress (J. Giancola et al., 2009; Terenzini et al., 1996). The compounding effect of these multiple stressors increases the risk of poor academic performance (Terezini et al. , 1996), physical illness (Sarfino & Ewing, 1990) and mental health issues (Hyad et al., 2009; Pritchard, Wilson, & Yamnitz, 2007).

Although Mehta et al. (2011) found there to be no significant difference in the rate of employment between FGSs and CGSs, they did find that FGSs work more hours per week than do CGSs. Consequently, with working more hours, FGSs may not have the time needed to attend

to the academic demands with which they are faced. Terenzini et al. (1996) found that FGSs spend less time studying than CGSs, which may be due to work obligations. With commitments that span beyond the scope of their educational responsibilities, FGSs are also less likely to be involved in extracurricular activities than CGSs (Mehta et al., 2011; Pascarella et al., 2004).

In a study comparing the experiences and outcomes of FGSs and CGSs in higher education, Pascarella et al. (2004) used a sample of students who participated in the National Study of Student Learning, which assessed the outcomes and experiences of college students. This longitudinal study used a student population that was representative of the national population by ethnicity and gender of undergraduates enrolled in four-year institutions (Pascarella et al., 2004). The authors acknowledged that although the sample was taken from a broad range of four-year institutions with demographics that were representative of the national student population, the use of only 18 institutions denotes that the results may not be able to be generalized to all FGSs and CGSs (Pascarella et al., 2004). However, suggested that when FGSs work more hours per week than CGSs there is a negative impact on their academic achievements. Furthermore, as stated previously, FGSs are less likely to participate in extracurricular activities (Pascarella et al., 2004). However, when they do participate in non-academic college activities there is a greater positive impact on internal locus of control for academic success and a greater positive impact on degree plans for FGSs than for CGSs (Pascarella et al., 2004).

Generation Status and Academic Challenges

Forbus et al. (2011) compared the differences between FGSs and CGSs and their academic experiences by constructing, and administering a questionnaire to a stratified convenience sample that was found to be representative of the student population at a four year

university in the southwest. Researchers initially conducted a focus group to assist with the development of the survey. From the focus group results, the authors maintained that there were significant differences in the needs of FGSs compared to CGSs (Forbus et al., 2011). These needs include more comprehensive orientation programs, a greater emphasis on peer mentoring and tutoring (Forbus et al., 2011).

The second phase of the study consisted of administering questionnaires to the sample population. Results indicated that FGSs tend to take a serious approach to their academic efforts and that they do not expect to have a lot of time for socializing with friends. Furthermore FGSs are more motivated to graduate from college in a shorter amount of time than are CGSs (Forbus et al., 2011). With limited resources to pay for their college education and FGSs may be more motivated to finish their education in a shorter time frame than CGSs. Even when FGSs had the same GPA prior to enrolling in college and the same academic motivation, FGSs tend to not do as well academically as CGSs. Previous research also maintains that FGSs tend to have lower academic success than CGSs (Ramos-Sanchez & Nichols, 2007). Furthermore, students whose parents did not attend college were more likely to stay at the same institution until they graduate rather than transfer to another institution (Murphy & Hicks, 2006).

Overall, first generation students are subject to obstacles with which their continuing generation peers may not have to contend and which may influence their tenure in higher education (Mehta et al., 2011; McMurray & Sorrells, 2009; Ramos-Sanchez & Nichols, 2006; Terenzini et al., 1996). Mudge and Higgins (2011) add that first generation and racial/ethnic minority students who traditionally have been marginalized have factors which influence negative outcomes in higher education. In particular, while race/ethnicity is an independent factor in student stress assessments, racial/ethnic minority FGSs are more likely to report

experiencing racial/ethnic discrimination than were racial/ethnic minority CGSs (Terenzini et al., 1996). However, most racial/ethnic minorities state they have been discriminated against at some time in their life due to their race or ethnicity (Cokely et al., 2011). Stress related to discrimination is another factor that many racial/ethnic minority students must face while in college.

Racial/Ethnic Minority Students

As the number of racial/ethnic minority students enrolling in institutions of higher education continues to increase (NCES, 2011) research on the factors that may either help or hinder these diverse groups of students has increased, yet is still very limited (Carter & Reynolds, 2011; Holland, 2010; Myers, 2009; Wei et al., 2010). Cokely et al. (2011) and Hicks (2011) assert that the mental health of ethnic minorities has been understudied and when research has been conducted it has used instruments that have been developed without consideration of minority populations. Also limited is the quality of information on racial/ethnic groups due to a lack of focus of within group differences (Myers, 2009). Although stress is a factor that negatively impacts the experiences of most students, racial/ethnic minorities have some sources of stress that differ from their non minority peers. One source of stress that these diverse groups of students may be subject to is stress related to their minority status (Phinney & Haas, 2003). This stress is often the result of the attitudes and treatment by those who apply negative stereotypes to minorities with whom they have contact (Aranda & Rebello-Gil, 2004). This may also involve experiencing a hostile cultural environment, particularly if they are attending a predominately white institution (Carter, 2007).

Race Related Stress

Literature consistently maintains that minorities are often faced with many of the same challenges that first generation students face. These challenges include, but are not limited, to financial stress, lack of academic preparedness, as well as a lack of support from those who could guide them through the college exploration process (Carter & Reynolds, 2011; Holland, 2010; Romero et al., 2007; Wei et al., 2010). However, there is additional stress that is unique to ethnic minorities. This stress is race-related stress. Miller and Kaiser (2001) posit that prejudice and discrimination can cause stress for those who are stigmatized by their minority status.

In a study that examined race related stress, the relationship between cultural racism, which is defined as, "racism based on condemnation and belittling of one's racial group" (Carter & Reynolds, 2011, p. 160) and minority students' emotions were explored. With a sample of 229 Black/African American (29 male and 190 female) participants, four assessment instruments were utilized in this study: the Index of Race Related Stress (Utsey, 1999) the People of Color Racial Identity Attitude Scale (POCRIAS) (Helms 1995,) and the Profile of Mood States-Short From (POMS-SF) (Carter & Reynolds, 2011). The fourth form was a personal data form used to attain demographic information on the subjects. Data indicated that minorities who experienced race-related stress had higher rates of depression, tension, fatigue and anger, than those who did not experience race-related stress (Carter & Reynolds, 2011). Carter and Reynolds also found that socioeconomic status has an influence on race related stress; with middle and upper middle class Blacks reporting less race related stress than Blacks of lower socioeconomic status. Furthermore, race related stress was found to negatively impact minority students in relation to their feelings about their racial identity, as well their mood (Carter & Reynolds, 2011).

51

Interested in how ethnic stigma effects the transition to college by racial/ethnic minority students, Huynh and Fuligni (2012) conducted a longitudinal study with a sample of 563 minority students including Latino, European, Asian and other minority students (55% female and 45% male students). Using the Public Regard Scale (Sellers, Rowley, Chavous, Shelton, & Smith, 1997) and the Center for Epidemiologic Studies Depression Scale (Radloff, 1977), the researchers assessed the association between changes in perceived discrimination, devaluation, depressive and somatic symptoms among minority students. Results maintained that racial/ethnic minorities have higher degrees of both perceived societal devaluation and discrimination than their European American peers (Huynh & Fuligni, 2012). A positive correlation was found to exist between perceived discrimination and depressive and somatic symptoms. In other words, the more a student perceives they are being discriminated against, the higher their rate of depression and the more physical symptoms they report (Huynh & Fuligni, 2012). Additionally, results indicated that minority students who experience racial or ethnic based discrimination may experience prolonged adjustment issues as they transition into the academic community (Huynh & Fuligni, 2012). A limitation to this study is that the focus of the study was on Latino and Asian Americans and did not include a significant contingent of Black/African American or other minority students.

Although there are significant differences among racial/ethnic students and their experiences of stress, there are also some gender differences in the types of stress that males and females experience (Romero et al., 2007). Carter and Reynolds (2011) found some gender differences related to racism-related stress. Most notably was that Black/African American women are more likely to experience institutional and cultural racism than Black/African American males (Carter & Reynolds, 2011). While they acknowledge that all ethnic groups

report some bicultural racism, Carter and Reynolds noted that socioeconomic status influences race identity attitudes, with upper-middle class African Americans experiencing less conflict with their racial identity and immersion status. They were also less likely to experience anxiety or ambivalence about their connection to the Black community (Carter & Reynolds, 2011). The authors also suggest that upper middle class African Americans are less likely to have an idealized view of their own race and are less likely to be highly loyal to the Black community (Carter & Reynolds, 2011). They add that research on the effect of stress and bicultural racism is limited and that further research is needed to better understand within group variations.

Concurring with Carter and Reynolds (2011), Romero et al. (2007) maintained that all racial/ethnic students report experiencing racial stress. Also in accordance with Carter and Reynolds, in their study on mental health among Latinos, Asian Americans and European Americans Romero et al. (2007) found gender differences in the experience of race related stress. Among these groups of racial/ethnic students, male minority students were more likely to experience stress that resulted from being discriminated against due to having an accent and having problems speaking English (Romero et al., 2007). Males also experienced higher levels of stress due to derogatory ethnic jokes than did females (Romero et al., 2007).

Lazarus and Folkman (1984) maintained that while stressful circumstances differ among people with various backgrounds, another influential factor that will impact how a person experiences stress is the context in which the stressor occurs. When first enrolled in college, minority students may face challenges that require adapting to their new environment (Smart & Smart, 1995). This adaptation to a new culture is referred to as acculturation and consequently it may bring additional stress to racial/ethnic students as they try to adapt to a new cultural environment (Smart & Smart, 1995).

A review of literature shows differing views on what is encompassed in acculturation. Lucero-Miller and Newman (1999) stated, "acculturation is the extent to which values and attitudes of the dominant culture are adopted" (p. 75). Stanton-Salazar (1997) posits that the greater the congruence between the attitudes and values of the majority standards and the minority students' attitudes and values, the easier it will be for minority students to transition to the majority norm. Smart and Smart (1995) agreed, adding that the adaptability of minority students to these new norms is dependent on the degree of disparity between the culture they grew up in and the culture into which they are transitioning. However, Tatum (1997) stresses that while initially students of the minority culture may begin with internalizing the values of the dominant culture, racial identity is a developmental process in which identifying with one's own culture is essential to positive identity development. Concurring with Tatum, Kress (2009) posits that one's identity cannot be considered apart from one's history and culture. Although acculturation is traditionally viewed as adapting to the majority culture, Tatum (1997) did not agree that adapting to the values of the dominant culture was a necessary component of a minority student's identity development. Rather, she maintained that in an effort to affirm all students' identities educators must acknowledge the racial or ethnic identity of all their students. Likewise, Tatum (2000) suggested that it is imperative that students see themselves reflected in their institutional environment. Subsequently, if the educational environment to some degree does not reflect the student, then students risk developing feelings of being invisible or they may have a sense of being marginalized (Tatum, 2000). Moreover, having the perception of being sidelined due to race or ethnicity could become an impediment to student's academic motivation and subsequently their success (Tatum, 2000). Smart and Smart (1995) asserted that minorities may suffer from the negative impact of acculturation, which they refer to as acculturative stress,

"the psychological impact of adaptation to a new culture" (p. 25). Consequently, acculturative

stress may strain both psychological and physical resources of those who are striving to adapt to

their new environment (Smart & Smart, 1995).

In an examination of acculturation and the probability of completing a college education,

a strong ethnic identity was found to be the primary factor that enhanced the likelihood of

success in higher education (Nekby, Rodin, & Ozcan, 2009). Contrary to Tatum (1997) Neckby

and colleagues (2009) suggested that a strong identification to the majority culture was positively

correlated to an increased likelihood of success in higher education. However, they did note that

students who have a strong ethnic identity, yet a weak attachment to the majority culture also

have an increased likelihood of graduating from college (Nekby et al., 2009). They also

postulated that those students who have a weak attachment to both their own culture and the

majority culture are at a higher risk for attrition (Nekby et al., 2009).

Adding to the literature that reflects the complexity of acculturation and identity

development of racial/ethnic minorities, Romero et al. (2007) suggest that for some minorities

additional stress exists that is a result of trying to adapt to two cultures. They define bicultural

stress as "the perception of stress due to everyday life stressors that result from pressure to adopt

the majority culture as well as pressure to adopt minority cultures" (Romero et al., 2007, p. 529).

Wei et al. (2012) agreed, adding that minority stress can be a result of feeling a need to prove

one's self to the majority culture, and feeling a need to remain loyal to one's own culture while

at the same time trying to make friends with majority students. Some ethnic minority students

claim that they experience a hostile cultural environment, particularly if they are attending a

predominately white institution (Carter, 2007). Racial/ethnic minorities may also experience

interethnic stress due to having difficulties making friends with the majority culture, or stress from their own racial/ethnic peers for being viewed as "acting white" (Wei et al., 2012).

In an effort to understand the acting white hypothesis, Tyson, Darity and Castellino (2005) conducted a qualitative study among students at six North Carolina high schools, focused primarily on African American students. The researchers indicated that although allegations of acting white bring about hurt and frustration, it does not prevent students from enrolling in high achieving classes (Tyson et al., 2005). They also argue that African American students are academically motivated and that their minority status does not keep them from enrolling in high achieving classes. Additionally, they maintained that this acting white hypothesis was contextually driven and did not occur at most schools and it was less likely to be found in schools with a significant number of high achieving students of color (Tyson et al., 2005). In this vein, segregation, whether at the institution or classroom level, fosters a climate for academic bullying among African American students.

Romero et al. (2007) also reported that a correlation exists between bicultural stress and optimism- the higher the level of bicultural stress the less optimistic are students, adding that this is particularly true for female minority students. Interestingly, Wei and colleagues (2012) found that cultural competence was negatively correlated with depressive symptoms in racial/ethnic minorities. The more students felt they were adapting to the majority culture while at the same time retaining their minority identity, the less tendency they had towards depressive symptoms (Wei et al., 2012). Romero et al. (2007) also suggest that some stress for minority students who are trying to adapt to life in the United States is a result of not wanting to speak English. Asian students report more stress related to family issues as well as feeling more uncomfortable in other cultures than did other ethnic groups (Romero et al., 2007). Additionally, Asian and

Hispanic students often experience more stress related to their bicultural identity than do other racial/ethnic minorities (Romero et al., 2007). Furthermore, minority students who experience bicultural stress may experience additional stress that is a result of being from a lower socioeconomic group (Romero et al., 2007).

Interested in comparing the effect of perceived discrimination on the mental health of minority and majority ethnic students, Cokely et al. (2011) conducted a study using the Perceived Discrimination Scale (Willams, Yu, Jackson, & Anderson, 1997) and the Mental Health Inventory-5 (Berwick et al., 1991) with a sample of African American, Latino, Asian, and European American Students. Results indicated that the negative effect of perceived discrimination on mental health was higher among Asian and Latino students than African American and European American students (Cokely et al., 2011). Additionally, they found that although African American students reported experiencing discrimination more frequently than any other ethnic group and considered discrimination as more stressful than did other ethnic minority students, the negative impact on their mental health was lower than the impact of discrimination on the mental health of the other ethnic minority students. Their results also indicated that Asian students tend to be more vulnerable to mental health issues than are other racial/ethnic minority students (Cokely et al., 2011).

Differences in stress among various student demographics may be initial indicators of populations that could be at an increased risk of psychological and physical illnesses (Cohen & Janicki-Deverts, 2012). Carter and Reynolds (2011) emphasized that further research is needed to understand the impact that race related discrimination and stress have on various racial/ethnic groups.

57

Racial/Ethnic Minority Students and Social Capital

The support that students receive in preparation for enrolling in college impacts not only their adjustment to their new academic environment, but it significantly impacts their subsequent academic performance as well (Holland, 2010). Holland was interested in the type of social capital that minority students have when they begin their higher education pursuits, suggesting that "social capital is based on the premise that social relationships have the potential to advance an individual's goal" (Holland, 2010, p. 112). She found that although minority students did receive encouragement from their social network, they tend to lack social capital that would provide information that would help them in their academic pursuits (Holland, 2010). It should be noted that the author did not consider socioeconomic status in her study on social support and therefore it cannot be surmised that all minority students lack social capital that could provide students with guidance in their college journey. However, for those students who lack family social capital, faculty and counselors could provide information and encouragement for students as they proceed in their academic endeavors (Holland, 2010).

Noting the importance of social support for minority students in predominantly white institutions, Cushman (2007) contends that joining campus organizations for minority students enhances support among minorities. However, while acknowledging that fraternities and sororities provide social capital as well as enhance persistence in higher education, Chambers, Walpole and Coaxum (2012) voiced concern that academic achievement (as measured by GPA) among African American men and women who are members of Greek organizations is lower than their non-fraternal/sorority peers.

Wang and Casteneda (2008) contended that there has been a lack of research exploring the effect that generational status and racial/ethnic status simultaneously have on stress, self-

58

efficacy, and perception of social support. Subsequently, they attempted to explore the impact of those variables at a large public university on the West Coast. However, due to a small response by a diverse contingent of students, researchers combined data from all racial/ethnic minorities in one group and compared ethnic minority students to ethnic majority students (Wang & Casteneda, 2008). Results indicated that ethnic minorities had lower self-efficacy as well as lower perception of support from family and friends, than did White students (Wang & Casteneda, 2008).

While research on American Indian students in higher education is very limited, Thompson and colleagues (2013) conducted a study that focused on non-cognitive factors that influence persistence among this student population. Results indicated that the two factors found to enhance persistence among American Indian students were culturally specific (Thompson et al., 2013). Both collective self-esteem (which is one's positive feelings about their cultural group) and coping efficacy (one's ability to cope with challenges they confront) were the factors found to be crucial to persistence among American Indian students (Thompson et al., 2013). Montgomery, Miville, Winterowd, Jeffries, and Baysden (2000) concurred, emphasizing the importance of one's Indian identity, a positive perception of social support as well as having an academic identity, as crucial factors that influence persistence in higher education. They added that positive self-talk also contributed to resilience in academia for American Indian students (Montgomery et al., 2000).

Racial/Ethnic Minority Students and Academic Preparedness

Academic preparedness is another factor that either enhances or impedes one's college experience and likelihood of academic success. Minority students are more likely to come from lower socioeconomic families and therefore they often have a history of attending low

59

performing secondary schools (Cushman, 2007; Hahs-Vaughn, 2004). Minority students are also more likely to attend schools that have less demanding curricula (Mudge & Higgins, 2011). Consequently, they are more likely to enter college lacking in preparedness than students who come from families of higher socioeconomic status (Cushman, 2007; Holland, 2010; Hahs-Vaughn, 2004; Mudge & Higgins, 2011). Walpole and Chambers (2013) posit that additional research is needed which addresses the gap in academic achievement by race as well as gender.

Students in Higher Education Coping With Stress

Just as the student population consists of diverse students with varying needs, the means by which these different groups of students cope with stress may vary as well. While adapting to a new culture often adds stress to the college student's life, it is important to acknowledge that there is a wide range of variance in the ways that first generation, continuing generation and racial/ethnic students experience college life and its associated stresses. Factors that often confound stress, such as socioeconomic status and generational status have been discussed above. Furthermore, differences in stress among different demographics may be vital indicators of populations that could be at an increased risk for physical and psychological illnesses (Cohen & Janicki-Diverts, 2012). Faced with a myriad of challenges that impede academic success as well as mitigate their physical as well as their mental health, students must develop skills to effectively cope with the stressors they face while in college (Lenz, 2010). Therefore, it is essential that administrators in higher education have a better understanding of the means by which students cope with stress (Outten, Schmitt, Garcia, & Branscombe, 2009).

In an assessment of coping skills among current college students, Bland, Melton, Welle, and Bigham (2012) sought to ascertain coping strategies that affect one's tolerance for stress. Results indicated that students often seek out social support as a means of coping with stress

(Bland et al., 2012). Additionally, while social support can help mitigate the negative effects of stress, students who solely rely on social support as a means of coping do not develop their own decision making skills, and as a result may develop a low tolerance for stress (Bland et al., 2012). The authors inferred that not only are the means by which students cope with stress often ineffective, but the ways they cope with stress may result in putting themselves at risk for a low tolerance of stress and subsequently at risk for experiencing the negative effects of stress more keenly (Bland et al., 2012).

It is also important to note that high stress coupled with low coping resources adversely influences one's mental health (Billings & Moos, 1984; Moos, 2002). Hystad and colleagues (2009) concur, adding that how a person perceives an event influences how they cope with stress and subsequently, the impact the stress has on one's mental health. Furthermore, stress that is not effectively coped with may lead to a deterioration in one's mental health, resulting in depression or heightened anxiety (Mostafei, 2012).

Factors that Enhance Coping with Stress

Although all students contend with some degree of stress in their life, not all students cope effectively when they are confronted with stress (Carver et al., 1989; Welle & Graf, 2011). However, there are various factors that have been found to enhance effective coping.

Hardiness

Hystad et al. (2009) explored how individual hardiness influences one's adaptability to cope with stress and whether or not this trait buffers the negative effects of stress in one's life. Hardiness, according to Hystad et al. (2009) is a combination of a sense of control, a sense of commitment, and an openness to seeing new experiences that require change as challenging. Using a sample of 213 undergraduate psychology students, surveys were distributed measuring

academic stress, hardiness and health complaints. Data revealed evidence of a negative

correlation between personal hardiness and both academic stress and health symptoms (Hystad et

al., 2009). The authors concluded that when students are able to appraise challenges with which

they are faced in a positive way, and if they have believe they have the ability to cope with these

challenges, it is then that their commitment to succeed helps safeguard them from detrimental

consequences of stress (Hystad et al., 2009). Dolbier, Smith and Steinhard (2007) concurred

adding that hardiness not only serves as a buffer to stress, but due to their appraisal of events,

hardy individuals tend to experience more positive outcomes when confronted with stress. They

also posit that there is an inverse relationship between hardiness and one's overall level of stress

in their life (Dolbier et al., 2007).

Locus of Control

One's locus of control is the degree to which a person perceives the outcome of an event

is contingent on external influences or is dependent on influences from within oneself (Rotter,

1966). A person who has an internal locus of control believes that they have some control over

the outcome of events in their life (Lee, 2012). A person with an external control believes that

external forces have control over events in their life (Lee, 2012). One's perception of control

influences not only how an individual performs academically while in college, it also influences

one's level of stress. Lee emphasized that there is a relationship between a commitment to one's

ethnic identity and locus of control- those who are committed to their ethnic identity are more

likely to have an internal locus of control. Having a sense of personal control over one's life

serves as a protective factor for coping with stress (Welle & Graef, 2011).

Although locus of control is a construct that is frequently referred to in discussions on

motivation it should be noted that there has been criticism that the construct of locus of control is

a racially biased concept. To address this criticism Lefcourt (1984) examined a most frequently

used measure of locus of control, the Internal External Scale (IE Scale) developed by Rotter

(1966). Lefcourt (1984) concluded that this locus of control measurement lacked cross-cultural

consideration and therefore needed to be revised to include characteristics of racial/ethnic

groups. Years later, Schapp, Buys and Olckers (2003) examined whether the construct validity in

measuring locus of control was the same for White students as it was for Black students.

Evidence showed there to be differences in locus of control construct validity for Black students

compared to White students, with construct validity confirmed for White students, but not for

Black students. The findings of both Lefcourt (1984) and Schapp et al. (2003) confirmed that

further research is needed on locus of control among racial/ethnic groups.

Self-Efficacy

Self-efficacy and social support have also been found to enhance coping with stress

(Phinney & Hass, 2003). One's perception of their abilities (self-efficacy) has been found to

correlate to academic achievement- the higher a person's self-efficacy the more likely a student

is to succeed in their academic endeavors (Lee, 2012). Zajacova et al. (2005) concur, adding that

self-efficacy is the factor that has the strongest predictability of grade point average (GPA)

among all groups of students, even when controlling for demographic background and earlier

academic outcomes.

In a study comparing first generation students to continuing generation students, Ramons-

Sanchez and Nichols (2007) found FGSs to have significantly lower self-efficacy at both the

beginning of the school year and the end of the year, than did CGSs. Since FGSs have more

challenges to overcome during their first year of college, their confidence in their abilities tends

to be lower than CGSs (Ramos-Sanchez & Nichols, 2007). With lower self- efficacy, FGSs are

more likely to give up rather than persist in their academics (McMurray & Sorrells, 2010; Wang & Casteneda-Sound, 2008). Furthermore, when they begin having academic difficulties, FGSs are more likely to give up trying rather than risk failure (Ishitani, 2003; McMurray & Sorrells 2009). They also have higher attrition rates, and are less likely to graduate from college than are CGS (McMurray & Sorrells, 2010). Data also indicates that self-efficacy is not only positively correlated to student's GPA, it also has a positive correlation to the number of credit hours they earn; the higher one's self-efficacy, the more credit hours they are likely to earn (Zajacova et al., 2000).

Clark (2005) emphasized that a student's confidence in their ability to cope with the challenges they face influences whether or not they will be successful in their coping efforts. Subsequently, students' lack of confidence in their coping abilities may cause them to refrain from confronting the challenges before them, which may also increase the likelihood of the stress persisting or negatively affecting their academic pursuits (Clark, 2005). Students who have a sense of self-efficacy (an assurance of their abilities), report having successful coping skills (Phinney & Haas, 2003). Similarly, Wang and Castaneda (2008) claimed that students with high academic efficacy are more likely to succeed in their academic endeavors. Also noted, was that students who are highly committed to their academic pursuits will be more tenacious in meeting the stress that confronts them (Hystad et al., 2009).

Social support can serve as a mediator of stress, a buffer to stress, and an effective means of coping with stress (Phinney & Haas, 2003). While some racial/ethnic minority students have a difficult time trying to adapt to the climate of the college community, some students have reported that joining minority student organizations helped them in coping with the challenges of their new environment (Cushman, 2007). As a coping resource, social support can provide

64

knowledge, guidance and emotional support provided by professors, peers or family and can enhance academic success (Phinney & Haas, 2003). However, Taylor (2012) cautions that social support may not be effective if the type of support that is being offered is not the type of support that is needed. Phinney and Haas (2003) emphasize the importance of understanding the interaction between multiple factors that enhance one's coping abilities.

Welle and Graf (2011) also examined the factors that can enhance a student's ability to cope with stress. Getting enough sleep, having a balanced diet, and getting some type of physical exercise are all factors that have been found to buffer the body against stress. Having control over their academics as well as their personal life, and being supported by family, friends and teachers are also factors that enhance one's coping ability of stress (Welle & Graf, 2011). Just as there are various factors that can enhance coping with stress, research on coping has focused on various coping strategies that are used to contend with stressful situations (Lazarus & Folkman, 1984; Carver et al.,1989).

Coping Styles

Most of the literature that assesses coping does so using two general styles of coping: problem focused and emotion focused coping (Lazarus & Folkman, 1984). However, Carver and colleagues (1989) believe that at times individuals use coping tendencies that they maintain are dysfunctional. They refer to this coping strategy as disengagement, which includes both behavioral and mental disengagement (Carver et al., 1989). Lenz (2010) referred to this type of coping as avoidance coping. In an effort to better understand how individuals cope with stress it is necessary to be cognizant of how different coping strategies are utilized when one is confronted with stress. Although coping strategies may be categorized as either functional or dysfunctional, it must be acknowledged that behaviors or cognitions that may be dysfunctional to

one person may results in positive outcomes for another. For example, mental disengagement which may involve engaging in other activities to get one's mind off a stressor may help one buffer the effect of stress and subsequently may aid a person in dealing with the impact of the stressor.

Active Coping/ Problem Focused Coping

Lazarus and Folkman (1984) contend that most coping involves two styles of coping. The first strategy, problem focused coping, involves focusing on the problem that is causing one stress and developing a plan to deal directly with the source of the stress. Lenz (2010), referred to this type of coping as task oriented coping, which she stated involves confronting, managing and controlling the source of the stress. Carver et al. (1989) also referred this type of coping as problem focused coping. Problem focus coping is a proactive style of dealing with stress which is considered the most effective way of managing stress (Carver et al., 1989; Krypel & Henderson-King, 2010). This coping style is used more frequently when a person believes they can do something to change the stressor (Carver et al., 1989; Krypel & Henderson-King, 2010; Lazarus & Folkman, 1984). Active coping (problem focused coping) leads to a higher tolerance for stress and subsequently enhances one's adjustment to college (Mehta, 2011). Furthermore, when students use problem focused coping to handle academic stress they are more motivated and, subsequently, they perform better academically than students who use emotion focused coping mechanisms (Kryel & Henderson-King, 2010; Struthers, Perry, & Menec, 2000).

Using a descriptive study, Lenz (2010) assessed what coping style college students perceived as being most effective in helping them cope with stress. Students rated task-oriented (active focused) as both the most effective and the most used copying style (Lenz, 2010). She stated that this tendency to use more active focused coping, suggests that students would rather

deal with the problem that is causing the stress rather than the emotional impact of the stress (Lenz, 2010). Also noteworthy is that students rated avoidance coping ineffective and that they use this coping style less frequently than both active coping and emotion coping (Lenz, 2010). Earlier research by Phinney and Haas (2003) concluded that seeking social support is a more effective coping response than active coping. However, Carver et al. (1989) consider seeking out social support for assistance or information to be a type of active/problem-focused coping. Lenz (2010) did concede that while active focused coping is used most frequently by students when confronted with stress, at times students prefer to cope with the emotional impact of the stressor by seeking out social support.

Emotion Focused Coping

Emotion focused coping involves dealing with the emotional impact of the stressor rather than dealing with the source of the stress (Carver et al., 1989; Lazarus & Folkman, 1984; Lenz, 2010). Emotion focused coping may involve seeking social support from family or friends, sharing one's feelings, trying to see the situation in different light, accepting the situation, or turning to religion (Carver et al., 1989). These coping techniques are typically used to reduce the emotional impact of the stressor or to reduce the threat of the stressor (Folkman & Lazarus, 1984). Another aspect of emotional coping involves individuals trying to control their emotional response to the stress (Lenz, 2010). Individuals are more likely to use emotion focused coping when the situation seems uncontrollable or has very serious implications (Lenz, 2010). Lazarus and Folkman (1984) asserted that most people use both emotion focused and problem focused coping when dealing with stressful situations rather than relying on just one coping style. They

also theorized that people tend to use different coping styles depending on the circumstances that confront them.

Avoidance Coping/Disengagement

More recent research contends that there is a third style of coping, which is most often referred to as avoidance coping (Lenz, 2010). Avoidance coping exists when a person does not deal directly with either the stressor or the emotional impact of the stressor. This style of coping is also referred to as disengagement, which involves either mental or behavioral detachment (Carver et al., 1989; Krypel & Henderson-King, 2010). Disengagement may involve a person giving up any effort to modify or deal with the stressor. It may also involve focusing on another task to avoid thinking about the stressor or the emotional impact of the stressor (Carver et al., 1989). Mental disengagement may be helpful when a person is not able to do anything about a situation and therefore is able to create some distance from the stressor.

Avoidance coping or disengagement coping could also involve drinking alcohol or taking drugs (Carver et al., 1989). The increased prevalence of alcohol and drug usage among college students concerns parents, faculty and administrators. Furthermore, while many college students may turn to substances as a way to cope with the stress in their lives, they may not be aware that the use of substances to deal with stress increases their risk of having stress related ailments (Welle & Graf, 2011). Furthermore, the coping mechanisms that some students use to alleviate stress are often not only ineffective; they may actually exacerbate their level of stress (Bland et al., 2009). Consequently, when students use ineffective coping strategies they are at an increased risk of dropping out of school and an increased risk of not graduating from college (Hystad et al., 2009).

Also important to consider in understanding how individuals cope with stress is that individuals may perceive the same situation differently. What one person may perceive as a negative or avoidance coping mechanism might actually be a positive coping tool. For instance, one may assume that students of the same racial or ethnic group congregate as a means of avoiding the majority group. However, in her book, *Why Are All the Black Kids Sitting Together in the Cafeteria,* Tatum (1997) states that in racially mixed environments, social grouping is a part of one's developmental process and is a means by which young people cope with the stress of racism. She adds that seeking out the social support of one's peer group is a positive coping mechanism (Tatum, 1997).

Coping Among First Generation Students and Continuing Generation Students

Although there has been an increase in the amount of research that has focused on first generation students (FGSs) and the issues with which they are faced when they pursue higher education (McMurray & Sorrell, 2010; Terinzini et al., 1996), there has been a lack of focus on how FGSs cope with the stress they experience during their tenure in college (Pascarella, 2004). In an effort to examine differences between first generation and continuing generation students, Forbus et al. (2011) conducted a study to assess how these students cope with challenges with which they are faced while enrolled in college. The authors constructed an instrument that would assess coping strategies of students using a stratified sample of 452 undergraduate students at a mid-sized southwestern state university. Face validity was confirmed and a pilot study was conducted to ensure the validity of the assessment tool (Forbus et al., 2011). Results indicated that there are significant differences between the way FGS and CGS cope with stress. Analysis of data confirmed what other studies have reported- that FGSs come to college with a greater amount of stress than do CGS, yet have fewer resources and coping skills with which to cope

(Forbus et al., 2011). The authors also noted that FGS were more likely to cope with stress by taking time off work to put things in a wider perspective, and they were less likely to seek out social events or go to bars to deal with stress, than were CGS (Forbus et al., 2011). Furthermore, FGS are less likely to use counseling services than continuing generation students (Stebleton et al., & Huesman, 2014).

In their qualitative study on coping among first generation students Phinney and Haas (2003) found these students were more likely to use proactive coping than to seek out social support when faced with challenges in college. However students reported seeking out social support to be the factor that contributed the most to successful coping. Furthermore, they noted that there was no consistent method of coping among these students and acknowledged the coping process to be a complex interaction between situation and personal characteristics of students.

Although FGSs may have access to admissions in higher education they do not have access to a full range of experiences that would help them cope with the demands of college, and therefore they are less likely to succeed in college than their continuing generation peers (Mudge & Higgins, 2011; Pascarella et al., 2004). Consequently, with limited resources to contend with the challenges they face, FGSs are less likely to persist in college when they have difficulties and they are more likely to leave college before they graduate (Pascarella et al., 2004). Mehta et al. (2011) contend that there is a need for programs and services that could teach students how to more actively cope with stress while in college.

Racial/ethnic minority students also face demands with which their non-minority peers do not have to contend (Carter & Reynolds, 2011; Holland, 2010; Mudge & Higgins, 2010;

Romero et al., 2007). These demands may impact how these student populations cope with stress.

Racial/Ethnic Minority Students Coping with Stress

Welle and Graff (2011) suggest that the way students cope with stress may vary among racial/ethnic groups, however the literature presents a limited amount of research that has focused on how these diverse groups of students cope with stress. In an effort to gain insight into the way racial/ethnic minority students cope with stress Phinney and Haas (2003) conducted a qualitative study at a predominantly racial/ethnic minority commuter university. The 30 participants in their study included 19 Latino students, eight Asian American students, two African American students and one student of mixed heritage. Twenty-five of the thirty students were also the first in their family to attend college. Acknowledging that these students were more likely to be from low income families, to hold jobs, and to lack social support while enrolled in college, the authors concurred with previous research which stated that these groups of students face stressors that their non-minority peers are less likely to face and subsequently they are more likely to drop out of school before graduating (Phinney & Haas, 2003). Students in this study were instructed to keep a journal once a week for three consecutive weeks documenting how they cope with stress. Results indicated that students used proactive coping (dealing directly with the stressor) most frequently, followed by seeking social support (Phinney & Haas, 2003). Although students were more likely to deal directly with the stressor before they sought out social support, students rated coping with stress more effective when they perceived that they had the social support they needed (Phinney & Haas, 2003). Additionally, students reported feeling higher levels of stress and coping less effectively with stress when they recognized a need for empathy and emotional support, yet their perception of social support was low (Phinney

& Haas, 2003). However, the authors conceded that the differences in coping among these students could not necessarily be explained by racial/ethnic minority status or by generational status of the students due to the small sample size (Phinney & Haas, 2003).

Their study concurred with other research, which emphasized the importance of both social support, and self-efficacy as factors that enhance one's coping with stress (Bandura, 1997; Ramos-Sanchez & Nichols, 2007). Congruent with Phinney and Haas (2003), Welle and Graf confirmed that feeling supported and having a sense of personal control were both factors that enhanced coping with stress among racial/minority students.

Welle and Graf (2011) were interested in assessing the differences among racial/ethnic minority groups and between genders in their tolerance for stress and coping. A stress inventory which included three surveys of stressors, symptoms and coping styles was given to 459 student participants who were chosen using a randomized, cluster sampling technique (Welle & Graf, 2011). This study recognized some significant differences in stress tolerance between genders and between African Americans/Blacks and Whites. Females reported having a higher level of stressors in their lives as well as more stress symptoms than did males (Welle & Graf, 2011). Previous research attests to the fact that males and females cope with stress in very different ways (Wells & Graf, 2011). And while social support was reported by both genders as being an important buffer against stress, data suggest that it is more important to females than to males (Welle & Graf, 2011). Furthermore, although Whites and African Americans scored similarly on the prevalence of stressors in their lives, Whites scored higher on actual stress symptoms (i.e. problems falling asleep, feeling overwhelmed, feelings of anxiety, and emotional mood swings), than did African Americans (Welle & Graf, 2011).

Folkman and Moskowitz (2004) posit that people use religion to help them cope with

immediate stressful events in their lives and at times to find purpose and meaning in such events. Subsequently, African Americans report more positive religious coping than negative religious coping (Chapman & Steger, 2010). Burris et al. (2009) contend that there is a negative relationship between religion and psychological distress – students who attest to a religious faith tend to have lower psychological distress.

While research on coping among Hispanic students is limited, Castellanos, Scull and Villegas (2009) contend that Latino students tend to use more direct and active approaches to coping with stress. Their study found that male Latino students have less of a tendency to talk to others about the stress in their lives and they assert that it would serve this population well if an outlet where male Latino students could express their feelings about stress (Castellanos et al., 2009). They add that additional research is needed that would give greater insight into the psychological coping of Latino students. Native American students depend on social support from family as a means of coping with the challenges they face while enrolled in higher education (Thompson, Johnson-Jennings, & Nitzarim, 2013). They maintain that institutions should provide a welcoming environment to students that would help provide social support that could help them contend with stress (Thompson et al., 2013).

Although Welle and Graf (2011) found significant differences between races, their study has limitations due to the fact that their analysis only included two racial/ethnic groups: Black/African Americans and Whites. These studies confirmed the need for additional research which would explore coping with stress among racial/ethnic minority students who are also FGSs to better understand if there is a difference in how these different groups of students cope with stress (Phiney & Haas, 2003; Welle & Graf, 2011). Myers (2009) maintains that there is a lack of understanding about how racial/ethnic groups cope with stress due to the limited quality

and quantity of research on coping styles and resources for coping with stress among these groups of people.

Measuring Coping

While the need to understand how students cope with stress is a concern that has gained attention within higher education, the assessment tools used to measure coping are very limited. The two most commonly used instruments to assess coping are the Ways of Coping Scale developed by Lazarus and Folkman (1984) and COPE developed by Carver et al. (1989).

The Ways of Coping Scale was originally developed as a checklist in (Lazarus & Folkman, 1984) was revised in 1988, and was constructed with two goals in mind. First Lazarus and Folkman wanted to determine if people were consistent in how they coped with stress and second they wanted to determine what factors influenced how a person coped with stress (Folkman & Lazarus, 1988). These factors included demographic variables, as well as who was involved in the situation, how it was appraised and what the situation entailed. Reporting internal consistency with Cronbach's alpha levels ranging from ($\alpha= 0. 61$ to $\alpha=0. 79$) for all scales, the authors contend that this assessment tool is not a test in the traditional sense and therefore test/retest reliability is not appropriate (Folkman & Lazarus, 1984).

The Mental Measurement Yearbook states that the Ways of Coping Scale is a research tool that should be used with caution due to weak internal consistencies as well as weak stability measures. However, it continues to be one of the most widely used coping assessment tools and is considered to be a valid stress assessment tool (Folkman & Lazarus, 1988). More recently Kieffer and MacDonald (2011) revisited the issue of reliability of the Ways of Coping Scale and still found a lack of researchers who reported reliability scores. However, they did deem the Ways of Coping Scale as having relatively stable reliability scores with most subscales

74

exceeding .70 (Kieffer & MacDonald, 2011). The Ways of Coping Scale measures problem focused (active coping) and emotion focused coping (Folkman & Lazarus, 1988). Their instrument instructs people to think about a current stressful situation and then respond to the questionnaire according to how they dealt with that particular stressor (Folkman & Lazarus, 1984). As previously highlighted Carver and colleagues (1989) developed their assessment tool based on the Ways of Coping scale developed by Lazarus and Folkman (1984). Carver et al. (1989) contended that COPE was a more accurate multidimentional assessment of stress with more clearly focused items, which went beyond the two original dimensions of coping to include Dysfunctional Coping.

Since its development, the COPE has been used worldwide, translated into multiple languages for a wide range of stress related settings. In an attempt to better understand the stress response by college students to the terrorist attacks on September 11th, Liverant, Hofmann and Litz (2004) utilized the COPE Inventory. The alpha levels in their study were similar to Carver and colleagues (1989) initial study, with an alpha range of between ($\alpha= 0.62$) and ($\alpha= 0.94$), (Liverant et al., 2004). In both the original study by Carver et al. (1989) and the study by Liverant et al. (2004) mental disengagement had low coefficients ($\alpha= 0.60$) (Liverant et al., 2004). However the authors concurred with Carver and colleagues (1989), that low internal consistency should be expected due to the multiple act criterion (Liverant et al., 2004). Moreover, Moos and Billngs (1984), posit that moderate or low alphas may be due either to a small number of items in an instrument or efforts to reduce redundancy within categories. They add that it is more likely that more than one coping response may eliminate stress and thus reduce the need for alternate responses (Moos & Billings, 1984).

Krypel and Henderson-King (2010) used the COPE (Carver et al., 1989) and the Perceived Stress Scale (Cohen et al., 1983) to assess the relationship between stress, coping styles and optimism with undergraduate students. Cronbach's (coefficients for the three COPE subscales were (α= 0.92) for Emotion-focused, (α= 0.86) for Problem Focused and (α= 0.80) for Disengagement. Cronbach's alpha coefficient was (α= 0.84) for the Perceived Stress Scale. Research findings indicated that optimism was correlated with more effective coping in college. Students who perceived their education as positive ways were more likely to use productive means of coping with stress (Krypel & Henderson-King, 2010). Optimistic students were more likely to use problem focused and emotion focused coping than disengagement coping. The authors also contend that efforts should be made in higher education to teach students how to more effectively cope with stress (Krypel & Henderson-King, 2010).

Another study conducted abroad was by Hudek-Knezevic, Kardum and Vukmirovic (1999) who used a Croatian version of COPE with undergraduate students at the University of Rijeka. Cronback's alpha values were reported as (α= 0.87) for problem (active coping) (α= 0.92) for emotion- focused coping and (α= 0.80) for disengagement. The authors hypothesized, that with the current economic and political unrest in Croatia, situations are often perceived as being less controllable, therefore coping possibilities are limited (Hudek-Knezevic et al.,1999). As they expected, coping strategies of acceptance, restraint coping and positive reinterpretation of events were the most often used coping techniques among the Croatian student sample. The suggested further research should be conducted using COPE to examine the relationship between coping and personality in order to assess coping when used with specific situational formats (Hudek-Knezevic et al., 1999).

76

In their study of student athletes in Western Australia, Eklund, Grove and Heard (1998) compared the COPE to a modified version of the COPE (MCOPE) to determine if either of these instruments is a valid instrument for measuring how student athletes cope with stress. They initially reported the original Cronbach alpha levels, which were reported by Carver et al. (1989). However, in their own study they realized an overall alpha average of (α=0.76) for their first study and (α=0.78) for their second study concluding that COPE was a good assessment tool to use to assess student athletes' coping with stress (Eklund et al., 1998).

In a study of Malaysian mothers who had a child diagnosed with Down Syndrome, Norizan and Shasuddin (2010) used the COPE to assess coping styles among this contingent of people. They reported that the COPE had good Cronbach's alpha values with alpha levels ranging from (α= 0.65 to α=0.92). Acknowledging that parents who have a child with Down Syndrome experience higher levels of stress than parents who do not have a child with Down Syndrome, using the COPE they were able to find correlations between specific types of coping and different child behavior.

In their study on the effects of stress on sleep and coping strategies, Sadeh, Keinan, and Daon (2004) used the COPE with undergraduate psychology students at Tel Aviv University. Cronbach's alpha coefficients were (α= 0.82) for problem focused Coping, (α=0.80) for emotion focused, and (α=0.59) for disengaged coping. The data collected from their study concluded that coping style is a significant factor in predicting a relationship between stress and sleep with emotion focused coping being highly correlated to a reduction in sleep when a person experiences stress.

In an effort to understand how suicidal students cope with stress, Fidan, Ceyhun and Kirpinar (2011) conducted a study at Ataturk University in Turkey, comparing suicidal to non

suicidal adolescents, using the COPE Inventory (Carver, 1989). The authors maintained that they found significant differences in coping between the two groups (Fidan et al., 2011). Results indicated that suicidal adolescents use effective coping mechanisms less frequently than did non-suicidal youth (Fidan et al., 2011). The authors also contended that understanding how youth cope with stress confirms the need to teach students adaptive coping skills which could aid in the prevention of adolescent suicide (Fidan et al., 2011).

The worldwide use of the COPE and the validation among the aforementioned studies allow for a broad comparison of coping strategies in both psychological and medical research. Given the above, the COPE appears to be the most appropriate assessment instrument to compare the means by which diverse groups of students cope with stress.

Conclusion

With greater diversity among the college student population, including more racial/ethnic minority students who are also first generation students (Mehta et al., 2011; Wang & Casteneda-Sound, 2008), administrators in institutions of higher education are cognizant of the need to have a better understanding of the vast array of challenges these students face as they pursue higher education. There is also the need to be more informed of the effect that one's social, cultural and economic backgrounds have on how students transition into college and how students cope with the challenges that confront them while they pursue their academic goals. Literature on differences in coping strategies suggest a need for higher education to offer different programs for diverse contingents of students according to both generation status and racial/ethnic group (Welle & Graf, 2011).

Faculty and administrators in higher education are concerned about the impact that stress has on both the mental and physical well being of their students. They also are aware of the

impact that stress has on students' academic performance and subsequently their success in higher education. Recently, Sieben (2011) found that about one-third of college students have had some type of mental health counseling. While the number of students who seek out mental health services on campus has increased in the past three decades, there are still significant numbers of students who have some type of psychological problem but do not seek out help in dealing with their issues (Soet & Sevig, 2006). It is these students who are at a higher risk of having problems adjusting to the challenges they will face during college. Further research is needed to assess coping skills among racial/ethnic groups who are either FGS or CGSs. Results of such research would provide administrators and counseling center directors with data that would help them enhance their efforts to provide resources that help both first generation and continuing generation students of different racial/ethnic groups cope with stress.

If services are offered to students as a homogenous group, there may be many students who do not receive the support they need to cope with stress and to improve their chances of success in higher education. In an effort to provide programs and services that will help students more effectively cope with stress, there is a need for programs to be tailored to meet the needs of diverse contingents of students.

Concurrently, through a better understanding of coping strategies that different contingencies of students use, counseling centers may be able to offer programs and services that will teach students more effective means of coping. When this is accomplished students' mental and physical health will be enhanced as will their likelihood of academic success and success in the competitive workforce.

CHAPTER THREE: METHOD

The focus of this quantitative study was to explore stress coping strategies and perceived stress among college students of different racial/ethnic backgrounds and between first generation and continuing generation students. To assess coping strategies, the COPE, an instrument developed by Carver et al. (1989) was employed. Also utilized was the Perceived Stress Scale developed by Cohen et al. (1983), to measure students' perception of their level of stress, in an effort to determine if students' perception of stress has a significant relationship with how they cope.

Researchers have shown an increase in the number of racial/ethnic minority students, as well as first generation students who have enrolled in higher education over the past three decades and it is projected that the number of these students will continue to increase through the present decade (Anderson, 2003; J. Giancola et al., 2008; NCES, 2013; Mahoney, 2010; Steinburg, 2007). These contingents of students are often confronted with factors that increase their level of stress (Hicks & Hastee, 2008; Wei et al., 2010) and reduce their ability to meet their academic achievement and attainment goals as they pursue higher education (McMurray & Sorrells, 2009; Mehta et al., 2011; Reason, 2009; Wei et al., 2010). Furthermore, there is a significant relationship between stress and students' mental health, physical health, and academic success (Ciarrochi et al., 2002; Pedersen, 2012; Welle & Graff, 2011).

With numerous factors that compound the stress level of both racial/ethnic minority and first generation students, factors with which their non minority and continuing generation students do not have to contend, these student have lower retention rates than their non-minority and continuing generation peers (Mehta et al., 2011; Reason 2009; & Wei et al., 2010). While this gives college administrators and counselors reason for concern, little research has been

conducted to help those who work in higher education understand how these diverse populations of students cope with stress.

The following research questions are couched within the sociocultural perspective developed by Vygotsky (1962, 1997). This perspective considers the influence that one's social and cultural background has on behavioral and psychological issues. Using this framework may enhance one's understanding of how the environment in which a person is raised influences the various types of stress that students experiences while in college, as well as the means by which racial/ethnic students of different generational statuses cope with stress.

Overarching Research Questions

The overarching research questions that guide this study are:

RQ1 Is there a difference among students in the way they cope with stress by generation status, race/ethnicity, gender or institution?

RQ2 Is there a difference among students in how they perceive stress by generation status, race/ethnicity, gender, or institution?.

RQ3 Is there a relationship between perceived stress and the way students cope with stress?

The primary dependent variable in this study was how students cope with stress. A second dependent variable was perceived stress. This second dependent variable was employed to determine if a student's race/ethnicity, gender, generational status, or institution are related to their perceived level of stress. The independent variables used in this study were: generation status, race/ethnicity, gender, and institution.

Data Analysis

The type of statistical tests selected for this study were based on parameters delineated in Field (2009). First, basic descriptive statistics were calculated to gain an overall sense of the sample and how students cope and perceive their level of stress. Next, independent sample *t*-tests were used to determine if there were statistically significant differences in coping by generation status (first generation and continuing generation), gender, and institution (Institution A and Institution B). Whether a Student's or Welsh's *t* was used was determined by Levene's tests. Additionally, a one-way analysis of variance (ANOVA) was conducted to analyze variance between and within racial ethnic groups.

Post hoc tests were employed only when statistically significant difference were found. To garner a more robust understanding of the interconnectedness of variables a three way ANOVA was employed to determine if there was an interaction among three independent variables: generation status, race/ethnicity, and gender on any of the 15 COPE subscales. Additionally, a two way ANOVA was conducted on each of the COPE subscales to determine the main effect of the independent variables, gender, race/ethnicity, as well as the interaction between the two variables. A Pearson's Product Correlation was computed to determine if significant relationships exist between coping subscale. Correlations were also conducted to determine significant relationships between perceived stress and coping subscales. Finally a multiple regression analysis was employed to determine the predicatability of PSS score as the criterion variable with generation status, race/ethnicity, gender and institution as predictor variables. Results of these statistical tests are presented in chapter four, followed by a discussion of results in chapter five.

The following null hypotheses guided this study to determine if there was a significant difference in coping and perceived stress among racial/ethnic groups who are either first generation or continuing generation students. Global null hypotheses were employed to determine the relationships of independent variables: generation status, race/ethnicity, gender, institution, on the dependent variables: coping strategies and perceived stress.

Hø1 There are no statistically significant differences among students in the way they cope with stress by generation status, race/ethnicity, gender, or institution.

T-tests of independent samples with a significance level of p<0. 05 were used to determine if there is a statistical difference in the means of the 15 COPE subscales, by generation status, gender, and institution. Whether a Welsh's or Student's *t* was used depended on whether Levene's test for equality of variance was met.

One way ANOVAs were used to determine if there were statistically significant differences between racial/ethnic groups on the 15 COPE subscales. When there was found to be a significant difference, post hoc tests were conducted.

Hø2 *There is no statistically significant difference among students in how they perceive their level of stress by generation status, race/ethnicity, gender, or institution.*

T-tests of independent samples with a significance level of p<. 05 were used to determine if there is a statistical difference between the means of the independent variable (generation status, gender, and institution) and the dependent variable (perceived level of stress). Whether a Welsh's or Student's *t* was used depended on whether Levene's test for equality of variance was met.

A one way ANOVA was used to determine if there was a statistically significant difference among the means of the independent variable (racial/ethnic group) and the dependent

variable (perceived stress). Post-hoc tests were used to identify mean differences between groups if the ratio within and between group variance was statistically significant.

Hø3 There is no statistically significant relationship between perceived stress and how students cope with stress.

Individual *t*-tests of independent-samples were used with a significance level of $p \leq 0.05$ to determine the relationship between the independent variables and the dependent variable (perceived level of stress).

Beyond these null hypotheses I used a two way ANOVA to examine the joint influence of two independent variables (racial/ethnic group, and generation status) to determine if there was an interaction between variables. A three way ANOVA was also conducted to determine if there was an interaction between all three independent variables; racial/ethnic group, generation status and gender. Each independent variable was considered individually to see if there was a main effect of that independent variable.

Site of Research Study and Description of Participants

This research was conducted at two public universities in the Southeastern region of the United States. Although different in size and racial composition, both universities are located in rural communities, are regional institutions, and have diverse student populations. Both universities take pride in their diverse student bodies that are reflective of their regions. Students enrolled in Introductory Psychology courses at both institutions were invited to participate in this study. Several considerations were made when selecting the institutions that would be used to collect data for this study. First to be considered was the demographic make up of each institution. The composition of undergraduate racial/ethnic groups within the University System in the fall semester of 2013 included: White: 61%, African American: 22.4%, American

Indian/Native Alaskan, 1%, Hispanics of any race, 5%, Asian, 3. 5%, two or more races 2. 9% (northcarolina.edu, 2014).

Institution A, is a large university with a Doctoral/Research University, Carnegie Foundation classification (Carnegie Foundation, 2013). In the fall semester of 2013, Institution A had an undergraduate population of 20,625. The racial/ethnic composition of its undergraduate population was: White: 71%, Black/African American: 15. 6%, American Indian/Native Alaskan, < 1%, Hispanics of any race: 5. 1%, Asian: 2. 6%, and students of two of more races 2.9% (northcarolina. edu, 2014). Institution A allows for a robust comparison of students, with a racial/ethnic composition that is close to the typically Primariy White Institutions (PWI) that make up the university system.

Institution B is a mid-sized university with a Master's M: Master's College and University Carnegie Foundation classification (Carnegie Foundation, 2013). Utilizing the second institution in this study may help identify whether there are campus-based factors that influence coping among different racial/ethnic groups. While it is acknowledged that the comparison would not be definitive, the inclusion may help identify areas for future exploration. Institution B boasts a diverse student population, with an undergraduate population consisting of 5,184 students in fall 2013 (northcarolina.edu, 2014). In the fall of 2013, the racial/ethnic breakdown of the undergraduate student population was: White: 382%, African American/Black: 34.8%, American Indian/Native Alaskan: 15.5%, Hispanic of any race: 4.6%, Asian: 1.7%, and students of two or more races: 2.1% (NC, 2014). The percentages of racial/ethnic students at Institution B allowed for a strong research sample of racial/ethnic students for this study.

The most current data show that nationally, the racial composition of students enrolled in higher education from 1980 to 2010 increased for all of these racial/ethnic groups with one

exception (NCES, 2013). That exception was for White students, whose percentage of the student population decreased from 82% in 1980 to 61% in 2010 (NCES, 2013). It is important to note that although the number of Native American/Alaskan American students increased nationally from 1980 to 2010, they still represent the smallest contingent of students in higher education, going from less than 1% in 1980 to approximately 1% in 2010 (NCES, 2013). Although previous research on this racial/ethnic group is limited, the number of Native American/Alaskan Native participants in this current study provides data that gives further insight which adds to the body of knowledge on stress and coping among this student demographic.

Another consideration that was made in choosing these two institutions was accessibility to students. As insituttions of higher education are protective of using students in academic research this researcher had to consider gaining IRB approval at each institution to allow students from each institution to participate in this research study. This researcher chose the university at which she teaches as well as the university at which she is enrolled as a doctoral candidate, making access to students more feasible. IRB applications were submitted and approved at each institution.

The number of racial/ethnic students at both institutions may give insight into the ways in which different racial/ethnic students cope with stress and perceive stress. These results may be generalizable to other similar sized public universities with similar racial/ethnic make ups. Furthermore, if it is found that there are significant differences in the means by which various racial/ethnic groups and different generational statuses cope with stress and perceive stress, universities may be able to tailor services and programs to specific racial/ethnic groups.

Subsequently, these customized programs could help diverse groups of students cope with stress, thereby enhancing their college experience as well as increasing retention rates. Table 1 presents a breakdown of undergraduate enrollment by racial/ethnic groups for Institution A, Institution B as well as for the University System as a whole for fall 2013.

Sampling Frame

Participation in this study was offered to Introductory Psychology students at both universities. Students who volunteered to participate earned research credit in their Introductory Psychology course. The study was administered online during spring semester 2014 upon approval by the Institutional Review Board at both institutions. Race/ethnicity and generational status of the participants were self-identified in a demographic information questionnaire that each participant filled out prior to beginning the survey. For purposes of this study, the panethnic categories used by the university system of Black/African American, Hispanic of any race, American Indian/Native Alaskan, Asian, White and students of two or more races were used as racial/ethnic identifiers given the influence of panethnicity in racialized patterns (NC, 2013). Participants completed an online consent form and were informed of their right to withdraw from the study at any time without penalty.

Research Instruments

This study was conducted using a quantitative research design to determine if there is a significant difference between first generation and continuing generation students of different racial/ethnic groups in the means by which they cope with stress and perceived their stress levels. The first assessment tool that was used in this study was the COPE inventory, developed by Carver et al. (1989).

Table 1

Racial/Ethnic Undergraduate Populations by Institutions and University System: Fall 2013

Racial/Ethnic Group	Institution A	Institution B	University System
White	71.0%	38.2%	60.9%
Black/African American	15.6%	34.8%	22.5%
American Indian/Native Alaskan	<1.0%	15.5%	1.0%
Hispanic of any race	5.1%	4.6%	5.2%
Asian	2.6%	1.7%	3.5%
Two or more races	2.9%	2.1%	2.9%

COPE

The COPE is a multidimensional research tool was constructed to assess individuals'

coping strategies. As a theory based survey, this 60-item self-report inventory consists of fifteen

subscales assessing a broad range of coping responses to stress such as active coping, seeking out

social support and denia. Carver and colleagues (1989) used the conceptual framework of

Lazarus (1982), a leading theorist on stress, to develop their coping assessment instrument. Prior

to the development of the COPE inventory, Lazarus and Folkman (1984) developed one of the

earliest coping assessment tools called the Ways of Coping Scale. Although this scale provided a

foundation for assessing coping strategies, Carver and colleagues (1989) contended that within

both problem-focused and emotion-focused coping were both functional and dysfunctional

dimensions of coping, which were not addressed in the Ways of Coping Scale of Lazarus and

Folkman. Additionally, they maintained that different responses within each type of coping

might result in very different outcomes (Carver et al., 1989). They also noted that some of the

items in the Ways of Coping scale were too broad, lacked focus, and therefore appeared to be

ambiguous (Carver et al., 1989). Subsequently, Carver and colleagues sought to study coping

activities within each coping strategy in an effort to better understand specific coping behaviors

and the effectiveness of these responses.

Using a theoretical framework, their assessment tool contains 15 conceptually distinct

subscales. Five subscales measure what is referred to as problem-focused coping (Carver et al.,

1989). This is similar to what Lazarus and Folkman (1984) also referred to as problem-focused

coping or active coping. However, unlike the Ways of Coping scale, the COPE scale

differentiated additional dimensions of active coping, which Lazarus and Folkman did not

address, adding three additional subscales to the active coping scale (Carver et al., 1989). The

first subscale assesses *planning* as a dimension of the Active Coping style, which includes developing a strategy to cope with stress. While this is a problem-focused technique it is different from the actual behavioral response, which would involve implementing the strategy to cope with the stress (Carver et al., 1989). The second subscale, *suppression of competing activities,* involves putting aside other projects or activities that could hinder one in dealing with the stressor. The third scale within active coping is *restraint coping*, or waiting until the appropriate time to use the appropriate means of coping (Carver et al., 1989). *Use of instrumental social support and active coping* the last two types of the Active Coping style (Carver et al., 1989).

Emotion-focused coping, according to Carver and colleagues is similar to what Lazarus and Folkman (1984) referred to as emotion-focused coping (Carver et al., 1989). However, Carver et al. (1989) acknowledged that seeking social support, which is typically seen as being emotion-focused, might actually be either problem or emotion-focused coping. Whereas Lazarus did not differentiate between types of social support, the COPE scale makes a distinction between emotion-focused coping that is active versus emotion-focused coping that is nonactive (Carver et al., 1989). Each type of social support might be distinctly different depending on the purpose for which a person uses this coping strategy. For instance, emotion-focused coping may involve seeking support for advice on what to do, or it might involve seeking out emotional support to contend with one's thoughts or emotions brought on by the stressor.

Although the COPE assesses both emotion and problem-focused coping, as does the Ways of Coping Scale (Folkman & Lazarus, 1984), Carver and colleagues added a third type of coping, which they referred to as maladaptive coping. While the authors acknowledge the debate that argues denial, which is often considered dysfucntional, may buffer the negative effects of the

90

stressor (Lazarus, 1976; Taylor, 2006), for the COPE scale denial is referred to as the refusal to accept the existence of a stressor. This includes behavioral disengagement, mental disengagement, and sbustance use Carver et al. (1989). Disengagement is the coping strategy which the authors of the COPE suggest is most often a dysfunctional means of coping. However, Carver et al. (1989) acknowledge that what may appear to be a dysfunctional means of coping may not initially be maladaptive, but may become so if the individual relies on such a strategy rather than using more effective means. Taylor (2002) concurs adding that denial, which is most often thought of as being a dysfunctional coping strategy, can initially buffer one from the full impact of a stressor, and as Carver and colleagues (1989) maintain may only become maladaptive when such a coping strategy become one's long term coping mechanism.

The COPE directs respondents to indicate what they usually do when confronted with a stressful event, using a four-point Likert scale: 1= I usually don't do this at all, 2 = I usually do this a little bit, 3 = I usually do this a medium amount, 4 = I usually do this a lot. The active coping subscale includes items such as, "I concentrate my efforts on doing something about it" and "I take additional action to try to get rid of the problem." "I get advice from someone about what to do" and "I get upset, and am really aware of it" are utilized in the focus on and venting of emotions subscale. The religious coping subscale incorporates items such as, "I put my trust in God" and "I try to find comfort in my religion". "I say to myself this is not real" and "I pretend that it hasn't really happened" are examples of items in the denial subscale (Carver et al., 1989).

Internal consistency of the COPE was computed using Cronbach's alpha reliability coefficients for all the scales. Alpha levels were sufficient for all subscales, with one exception: Mental Disengagement α= 0.45. Although this subscale's alpha scale fell below 0.60, it was deemed not completely unexpected since it used multiple act criterion. (Liverant, Hoffman, &

litz, 2004). According to studies implemented by Carver and colleagues (1989) COPE subscale alphas ranged from a low of 0.45 to a high of 0.92. Test retest reliability showed that coping tendencies are relatively stable (Carver et al., 1989). As evidence of confidence in the use of the COPE as an effective measurement of coping strategies, an abundance of studies have been conducted using the COPE both domestically and internationally, citing fair to high alpha levels. These studies are highlighted in Chapter 2. Subsequently, the COPE appears to be the most appropriate assessment instrument to compare the means by which diverse groups of students cope with stress (see Appendix A for a copy of the COPE).

Perceived Stress Scale (PSS)

The second assessment instrument that was used in this study was the Perceived Stress Scale (PSS) originally developed by Cohen, Kamarck and Mermelstein (1983) and later revised by Cohen and Williamson (1988). In agreement with Lazarus' (1976) theory of stress, which maintains that how people perceive stress in their life influences how they cope with stress, Cohen and colleagues (1983) constructed the 14 item PSS to assess the perception individuals have of stress in their lives. In the development of their scale, Cohen et al. (1983) collected data from three samples, including two groups of college students and one mixed community group. Results demonstrated that the PSS had adequate internal and test-retest reliability $\alpha= 0.75$ (Cohen et al., 1983). Therefore the authors concluded that the PSS was a reliable predictor of the level of stress that one may experience (Cohen et al., 1983). However, after a factor analysis whcih resulted in four low factor loadings, Cohen and Williamson (1988) determined that when eliminating these four items the PSS-10 item scale performed better psychometrically with improved internal reliability $\alpha= 0.78$ and total explained variance 48.9%.

The PSS was found to be a better predictor of health outcomes than objective tests which measure the number of significant life events that occurred within a specific timeframe (Cohen et al., 1983). This indicates that how people appraise or perceive situations in their life has more of an impact than the number of major life events they experience in their life. This was confirmed in the authors' original study which found correlations between perceived stress and physical symptomology - as evidenced by the number of health service visits (Cohen et al., 1983). A correlation was also found between perceived stress and behavior, as well as psychological outcomes (Cohen et al., 1983).

Using a five point Likert scale, participants are asked during the last month how often they have thought or felt a certain way. The scale ranges from 0=Never to 4 very often. Sample items include: "In the past month how often have you been upset by something that happened unexpectedl," and "In the past month how often have you felt you could not cope with all the things you had to do?" With an alpha level of α=.89 for total PSS score, Roberti, Harrington and Storch (2006) concluded that the PSS is a valid and reliable instrument to be used when measuring percieved stress among college students.

Thirty years after the original construction of this instrument, the PSS is still a globally used assessment of one's perception of stress and the risk of stress related health issues (Cohen & Janicki-Deverts, 2012). It is this researcher's contention that assessing a person's perceived level of the stress is crucial to understanding the differences in how students cope with stress. Therefore it was determined that the PSS-10 item scale is the most appropriate assessment tool for measuring student's perception of stress (see Appendix E for the Perceived Stress Scale).

Data Collection

Data were collected at two universities within a southeastern university system using online surveys that were made available to Introductory Psychology students. Institution A used Sona System survey software and Qualtrics survey software. Students at University B used Sona system software. Students were able to access surveys through their respective university's Sona System from wherever they had internet access, making admittance to the study convenient and efficient for students. Both Qualtrics and The Sona System are a web-based software system that provides management for research participation and both are in compliance with both Institutional Review Board (IRB) and American Psychological Association (APA) guidelines for research participation by human subjects (Sona Systems, 2013). Students learn about, sign up and take part in the study through this system, which also records students credit for participating. Data were collected and exported to SPSS version 20 for analysis.

With online research methods becoming ubiquitous in higher education (Barge & Hunter, 2012; Greenlaw & Brown-Welty, 2009), it is important to consider the advantages and challenges that this mode of data collection may pose (Van Selm & Jankowski, 2006). One of the primary issues of using online survey is that of sampling bias due to the challenge of getting a representative sample (Van Selm & Jankowski, 2006). However, most researchers who use online surveys to collect data make a concerted effort to get a random sample that is likely to provide a representative sample of the target population (Van Selm & Jankowski, 2006). Another concern of using web based surveys is that the sample will be biased due to a lack of participation among students who do not have access to a computer. Nulty (2008) contends that in general, response rates of online surveys reap lower response rates than surveys that are administered on paper. He also makes a distinction between paper surveys that are administered

face to face and those in which a person must fill out and send in by mail and acknowledges that taking online surveys is easier than mailing in a survey (Nulty, 2008). Therefore he acknowledges that paper surveys are not always better than online surveys. However, Van Selm and Jankowski (2006) maintain that students may be more apt to participate in online surveys due to the increased availability of computers on college campuses as well as to the time efficiency of taking online surveys. They argue that the use of school-based surveys can be expected to increase response rates (Van Selm & Jankowski, 2006).

Van Selm and Jankowski (2006) caution that the use of email surveys may make anonymity more difficult for participants; for instance when a person submits their survey, email identifiers may make the participant's name recognizable. However, they note that the researcher can inform the respondents that data will be analyzed on an aggregate rather than individual level (Selm & Jankowski, 2006). Additionally, although there cannot be a guarantee of anonymity for those who take on online survey, participants should be assured of confidentiality with email addresses and survey responses being kept separate (Van Selm & Jankowski, 2006). The Sona System used in this study provided participants anonymity, so this will not be an issue in this study (Sona Systems, 2013).

Online surveys can facilitate gaining access to respondents who may be difficult to reach or would be impervious to sharing personal information in a face-to- face survey format (Van Selm & Jankowski, 2006). Likewise, researchers are cognizant of the fact that most students in higher education today are computer savvy and therefore may be more likely to respond to an online survey than to a face-to-face questionnaire (Van Selm & Jankowski, 2006).

While the use of online surveys for research may present challenges, the literature also shows that there are many advantages to using this method of data collection. Online surveys are

often more convenient to users as they have greater accessibility and they have the ability to access the survey at any time. They are also more time and cost efficient to conduct, collect and analyze data (Greenlaw & Brown-Welty, 2009; Topp & Pawloski, 2002; Ward et al., 2012). In an effort to determine the effect that mode of presentation has on survey experience and data quality, Downes-Le-Guin, Baker, Mechling and Ruyle (2012) distributed a single online questionnaire through Research Now to compare online surveys to surveys conducted face-to-face. The surveys covered issues ranging from public attitude on environmental issues to attitudes on our country's economic state. Data from this study suggest that there is no difference in respondent engagement or data quality with the use of online survey instruments (Downes-LeGuin et al., 2012). Furthermore, when web based surveys are used with students who have access to computers the response rate is considerably higher than for paper-based surveys (Greenlaw & Brown-Welty, 2009). Another advantage to using web-based surveys is the ability of the researcher to know when a questionnaire has been received as well as to be able to electronically send reminders to potential participants (Van Selm & Jankowski, 2012). Furthermore, most of the challenges of using online surveys can be resolved in a manner that will allow for good research practices and data collection. Therefore, the reported disadvantages of online data collection hold less validity than they have in the past (Van Selm & Jankowski, 2012).

Maintaining that the advantages of using online surveys in research exceed the concerns of using this method of data collection, it is this researcher's contention that online surveys are an appropriate mode of data collection to use with students in higher education. Therefore this study used Sona System and Qualtrics, both web-based software programs to collect data on how different student populations cope with stress while in college.

Conclusion

With increased numbers of racial/ethnic (Hicks & Heastie, 2008; Wei et al., 2010), as well as first generation students enrolling in higher education (Ishitani, 2003; J. Giancola, Munz, & Trares, 2008), and with students reporting higher levels of stress than students have reported in prior decades (Soet & Sivig, 2006; Welle & Graf, 2011), it cannot be assumed that all students cope with stress in the same manner. Nor can it be assumed that the programs and services that institutions of higher education offer students to cope with stress are relevant to all racial/ethnic groups of students. Through an analysis of data collected at two diverse universities, this research study aimed to discern if there are differences in the means by which racial/ethnic students and students of different generation statuses cope with stress and perceive stress in their lives. If data indicate that there are differences in the way different contingents of students cope with stress, programs and services may be tailored to specific groups of students to help them more effectively cope with the stress they face while pursuing their academic goals. Subsequently, if students use more effective means of coping with stress, their college experience, physical health, mental health and likelihood of academic success may all be enhanced.

CHAPTER FOUR: RESULTS

Results from this study, comparing how first generation and continuing generation students of different racial/ethnic groups cope with stress and perceive their levels of stress, are presented in this chapter in five sections. Descriptive data on the demographics of participants are included in the first section. The second section includes descriptive statistics on responses for the COPE survey and results of the COPE and relates the findings to the first global hypothesis. The third section includes descriptive data on the Perceived Stress Scale (PSS) as well as results of statistical tests conducted on students' perception of stress as assessed by the PSS-10 and presents the findings to the second global hypothesis. An examination of the relationship between coping and perceived stress is provided in the fourth section, and relates the results to the third hypothesis. A summary of the results of this study is presented in the final section.

Demographic Descriptive Statistics

Between both Institution A and Institution B 1,244 students signed up to participate in this study. Of those students, 132 students' data were eliminated due to those students taking the survey more than once. Additionally, 29 students' data were eliminated due to those students answering the same response to all survey questions (example, all 1's, 2's, etc). The data from these students were not considered in the total number of the sample population and subsequently their data were not analyzed. Therefore, the total number of participants for this study was 1,085.

Generation Status

The sample population consisted of 61% (*n=665*) continuing generation students and 38% (*n=415*) first generation students. Data were also examined parsing first generation students by students who did not have any parent who graduated from a four-year institution 22% (*n= 240*), and students who had a parent who attended some post secondary education but did not graduate from a four-year institution 16% (*n= 175*).

Data were initially analyzed between the two subgroups of first generation students to determine if there were any statistically significant differences in coping or perceived stress between these different first generation students. Data indicated that there were not any significant differences in coping or perceived stress between these two subgroups of first generation students. Therefore all analysis of first generation students combined data from both subgroups, includes all students who did not have a parent graduate from a four-year institution.

Racial/Ethnic Group and Institution

The majority of participants combined from both institutions identified themselves as White 62% (*n=683*). Black/African American participants comprised 21.2% (*n=230*) of the sample, Hispanic students of any race, 4.9% (*n=53*), Native American/Alaskan Native 1.9% (*n=21*), Asian students 3.1% (*n=32*) and students who identified themselves as two or more races made up 5.5% (*n=60*) of the sample. Four students chose not to identify themselves by race/ethnicity. At institution A, out of a possible 1,254 eligible students, 74% (*n=927*) participated. At Institution B, out of 240 eligible students, 66% (*n=158*) were included in the sample. Table 2 shows a comparison of the racial/ethnic composition of the sample relative to each institution's fall 2013 enrollment, as well as a comparison of the total sample relative to the university system enrollment in which both institutions belong.

Table 2

Enrollment and Sample by Racial/Ethnic Group at Institution A and B and within the University System

Racial/Ethnic Group	Institution A Enrollment Fall 2013	Institution A Sample	Institution B Enrollment Fall 2013	Institution B Sample	University System Enrollment Fall 2013	Total Sample
White	71.0%	67.0%	38.1%	40.0%	61.0%	62.0%
Black/African American	15.6%	19.8%	34.8%	31.8%	22.4%	21.2%
Hispanic of any race	5.1%	4.0%	4.6%	3.0%	5.0%	4.9%
American Indian/Native Alaskan	<1.0%	<1.0%	15.5%	8.9%	1.0%	1.9%
Asian	2.6%	3.2%	1.7%	2.5%	3.5%	3.1%
Students of two or more races	2.9%	5.0%	2.1%	8.9%	2.9%	5.5%

Gender

Women comprised 65% (*n*=707) of the sample population, with men making up 35% (*n*=376) of the sample. Two participants did not self identify their gender. Two students self identified themselves as transgendered, however, their data had to be removed due to one of the students only answering demographic information, but not taking the survey and the other transgender student answering all survey questions with the same response. Although this finding is of interest and worth further exploration at another time, it   yond the scope of this present study.

Age

Of the 1,085 students who participated in this study 99% (*n*=1,070) were of traditional undergraduate age, 18-24, 1% (*n*=11) were between the ages of 25-40, and .03% (*n*=3) were over age 40. One student did not identify his or her age. Due to most students being in one age group, an analysis was not conducted comparing students of different ages.

Parent and Marital Status

With regard to marital status, the vast majority of respondents, 95% (*n*=1,028) were single with no children, 3.1% (*n*=34) were single with children, 1% (*n*=13) were married with no children, and .03% (*n*=3) were married with children. Given the preponderance of students reporting being single without children, analyses were not conducted using this demographic variable.

Class Status

The majority of respondents 77% (*n* =839) were freshmen, 16% (*n*=177), were sophomores, 4% (*n*=44) were juniors and 2% (*n*=22) were seniors. Given the prevalence of freshmen in the sample, class status was not used as a predictor of coping or perceived stress.

101

Overall, demographic analyses indicate that the sample is representative of single, traditionally aged freshmen students who are not parents.

Research Questions and Hypotheses

The analyses were guided by three research questions and three corresponding global null hypotheses.

RQ1 Is there a difference among students in the way they cope with stress by generation status, race/ethnicity, gender or institution?

RQ2 Is there a difference among students in how they perceive stress by generation status, race/ethnicity, gender, or institution?.

RQ3 Is there a relationship between perceived stress and the way students cope with stress?

Hø1 There is no statistically significant difference among students in the way they cope with stress by generation status, race/ethnicity, gender, or institution.

Hø2 There is no statistically significant difference among students in how they perceive their level of stress by generation status, race/ethnicity, gender, or institution.

Hø3 There is no statistically significant relationship bewteen perceived stress and how students cope with stress.

While global hypotheses were used to determine the effect independent variables had on dependent variables, each variable was addressed individually in the analysis of data. A significance level of $p \leq 0.05$ was used on all tests in data analyses.

Results of the COPE

All tests used to examine coping among diverse student populations used a significance level of $p \leq 0.05$. Independent samples t-tests were employed to determine if there are statistical

differences between the means of coping subscales among independent variables (generation status, gender, and institution). Next ANOVAs were used to examine if there were statistical differences in the means among racial ethnic groups in how they cope with stress as well as to determine if there were statistically significant interactions between independent variables on any of the COPE subscales. As appropriate, post hoc tests were then used to determine mean differences between groups when the ratio between and within group variance was statistically different. Correlation coefficients were computed using Pearson's correlation coefficients to determine if there is a relationship between the means of students' perceived stress as measured by total PSS and the means of coping as assessed by the 15 COPE subscales. Finally a multiple regression analysis was conducted to examine the predictability of total PSS on coping. A reliability analysis was conducted (using the 15 COPE subscales) to compute an alpha coefficient. Results of this analysis on the full COPE scale indicated Cronbach's α= 0.79. Individual item reliability analysis revealed: Positive Reinterpretation and Growth α=0.73, Mental Disengagement α=0. 49, Focus on and Venting of Emotions α=0.79, Use of Instrumental Social Support α=0.78, Active Coping α=0.67, Denial α=0.77, Religious Coping α=0.92, Humor α=0.87, Behavioral Disengagement α=0.72, Restraint α= 0.60, Use of Emotional Social Support α=0.86, Substance Use α=0.92, Acceptance α= 0.69, Suppression of Competing Activities α=0.56, and Planning α=0.78. A reliability analysis was also conducted on the PSS using all ten items on this scale. Results indicated Cronbach's α=0.78. Table 3 presents descriptive statistics including number of participants, means, and standard deviations for the sample on all COPE subscales.

Table 3

*Descriptive Statistics of Total Sample for COPE Subscale*s

COPE Subscale	*n*	*M*	*SD*
Positive reinterpretation and growth	1,083	12.28	2.50
Mental disengagement	1,085	10.67	2.30
Focus on and venting of emotions	1,084	9.58	3.11
Use of instrumental social support	1,085	10.98	2.89
Active coping	1,085	11.02	2.34
Denial	1,084	6.94	2.70
Religious coping	1,084	10.67	4.10
Humor	1,084	9.57	3.33
Behavioral disengagement	1,085	7.10	2.49
Restraint coping	1,083	9.97	2.29
Use of emotional social support	1,085	10.17	3.40
Substance use	1,083	6.52	3.17
Acceptance	1,083	11.28	2.46
Suppression of competing activities	1,084	9.91	2.24
Planning	1,085	11.58	2.68

Note. Range on all COPE subscales is 4-16.

Hø1 There is no statistically significant difference among students in the way they cope with stress by generation status, race/ethnicity, gender, or institution.

COPE Subscales and Generation Status

Hø1a There is no statistically significant difference between students in the way they cope with stress by generation status.

Independent- samples *t* tests were conducted on all 15 COPE subscales, comparing the means of first generation students to the means of continuing generation students. Means ranged from 6.41 on Substance Use to 12.27 on Positive Reinterpretation and Growth for first generation students. The range for the means of continuing generation students was from 6.57 on Substance Use to 12.28 on Positive Reinterpretation and Growth. Although there were slight differences between the means of these two subsamples on all of the subscales, independent *t* tests indicated there to be no statistically significant differences between first generation and continuing generation students on any of the COPE subscales. Results of *t*-tests of COPE subscale means by generation status are presented on Table 4 along with descriptive statistics. Since there are no significant difference in coping between first generation and continuing generation students on how they cope with stress the null hypothesis was not rejected.

COPE Subscales and Racial/Ethnic Groups

Hø1b There is no statistically significant difference among students in the way they cope with stress by race/ethnicity.

A series of one-way analysis of variance (ANOVA) were conducted to determine if there were significant differences in coping among students of different racial/ethnic groups. The dependent variable was coping (15 subscales) the independent variable was race/ethnicity.

Table 4

Descriptive Statistics and t-test Results on COPE Subscales and Generation Status

COPE Subscale	n	M	SD	t
Positive Reinterpretation and Growth				
Continuing generation student	664	12.28	2.50	0.086
First generation student	414	12.27	2.49	
Mental Disengagement				
Continuing generation student	665	10.57	2.38	-1.749
First generation student	415	10.83	2.44	
Focus on and Venting and of Emotions				
Continuing generation student	665	9.63	3.08	0.656
First generation student	414	9.50	3.18	
Use of Instrumental Social Support				
Continuing generation student	665	11.11	2.81	1.881
First generation student	415	10.77	3.00	
Active Coping				
Continuing generation student	665	11.02	2.20	0.113
First generation student	415	11.00	2.55	
Denial				
Continuing generation student	664	7.00	2.71	0.882
First generation student	415	6.85	2.67	
Religious Coping				
Continuing generation student	665	10.59	4.07	-0.782
First generation student	414	10.79	4.14	
Humor				
Continuing generation student	665	9.71	3.20	1.650
First generation student	414	9.36	3.53	
Behavioral Disengagement				
Continuing generation student	665	7.18	2.49	1.326
First generation student	415	6.97	2.49	
Restraint Coping				
Continuing generation student	664	9.95	2.26	-0.201
First generation student	414	9.98	2.34	
Use of Emotional Social Support				
Continuing generation student	665	10.28	3.29	1.398
First generation student	415	9.98	3.57	
Substance Use				
Continuing generation student	663	6.57	3.12	0.806
First generation student	415	6.41	3.27	

Table 4 (continued)

COPE Subscale	n	M	SD	t
Acceptance				
Continuing generation student	664	11.19	2.42	-1.484
First generation student	414	11.42	2.51	
Suppression of Competing Activities				
Continuing generation student	665	9.90	2.18	-0.118
First generation student	414	9.92	2.32	
Planning				
Continuing generation student	615	11.62	2.54	0.579
First generation student	415	11.52	2.87	

Note. Range on all COPE subscales is 4-16. * indicates $p \leq 0.05$.

Results showed significant differences among race/ethnicity on four COPE subscales. Those four subscales included: Positive Reinterpretation and Growth (M= 12.28, SD= 2.50, $F(5)$= 2.457, $p \leq 0.05$). Religious Coping, (M=10.66, SD= 4.09, $F(5)$= 18.770, $p \leq 0.05$). Restraint Coping, (M=9.96, SD=2.29, $F(5)$= 3.358, $p \leq 0.05$), and Planning, (M=11.58, SD= 2.68, $F(5)$, $p \leq 0.05$).

Post hoc tests were conducted using the Games-Howell procedure, which is the most appropriate post hoc test to use when there are unequal groups sizes and equal variances are not assumed (Field, 2005). Although the ANOVA showed a significant difference among racial/ethnic groups on the Planning subscale, post hoc tests found there to be no significant differences on this subscale among racial/ethnic groups. However, post hoc results did indicate significant differences between group means on Positive Reinterpretation and Growth, Religious Coping, and Restraint Coping.

Post hoc comparisons of the Positive Reinterpretation and Growth subscale indicated that the mean score for White students (M= 12.15, SD= 2.49) was significantly different from Hispanic students (M=13.04, SD= 1.98). Hispanic students use Positive Reinterpretation and Growth significantly more than White students use this type of coping. Hispanic students also use Positive Reinterpretation significantly more than Asian students (M=12.48, SD=2.44).

A statistically significant difference was also found among students on the Religious Coping subscale. Black/African American (M=12.65, SD=3.28) and American Indian/Native Alaskan (M=13.24, SD= 3.00) students tend to use religious coping significantly more than White students (M=9.97, SD=4.15), Hispanic of any race (M=10.58, SD= 3.56), Asian (M=11.56, SD= 4.23), or students of two or more races (M=10.66, SD= 4.09). In addition, there was no statistically significant difference between Black/African American and American Indian/Native Alaskan students on the Religious Coping subscale.

While the one-way ANOVA did find a significant difference among racial/ethnic students $F= 3.358$ $p< 0.05$, on Restraint Coping, post hoc tests revealed that the only difference was between White students ($M= 9.79$, $SD= 2.22$) and Hispanic students ($M=10.62$, $SD=1.76$). Hispanic students tend to use Restraint Coping more than White students. Table 5 illustrates the results of the one-way ANOVAs comparing the means among all six racial/ethnic groups on the fifteen COPE subscales. Also included in this table are the post hoc results when a significant difference was indicated.

Since there were found to be some significant differences among the means of different racial/ethnic groups, the null hypothesis that there is no significant difference in coping among racial/ethnic students is rejected.

COPE Subscales and Gender

Hø1c There is no significant difference between gender and the means by which students cope with stress.

A series of independent-samples t-test were conducted comparing the means of men and women and how they cope with stress. Results indicated both significant differences as well as similarities between genders on various coping subscales. Analysis of data showed a statistically significant difference in the means of coping between gender on Positive Reinterpretation and Growth, with women having a higher mean on this coping strategy ($M_W=12.39$, $SD_W=2.43$) compared men to ($M_M=12.06$, $SD_M=2.61$, $t=2.048$, $p\leq.05$). In addition, women reported a higher mean on Mental Disengagement: women ($M_W=10.96$, $SD_W=2.39$; $M_M=10.10$, $SD_M=2.32$, $t=5.659$, p$\leq$ .001. Women also use Focus on and Venting Emotions more than their male counterparts, ($M_W= 10.37$, $SD_W=3.08$; ($M_M= 8.07$, $SD_M=2.55$; $t=13.154$, $p \leq .001$). Women were also more likely to engage in the Use of Instrumental Social Support ($M_W=11.26$, $SD_W=2.96$;

Table 5

Results of One Way ANOVA and Post Hoc Tests for COPE and Racial/Ethnic Students

COPE Subscale	df	M	SD	F	Games Howell
Positive Reinterpretation and Growth	5	12.28	2.50	2.457*	
White	1	12.15	2.49		
Hispanic of any race	1	13.04	1.98		.887*
Hispanic of any race	1	13.04	1.98		
White	1	12.15	2.49		.887*
Asian	1	12.48	2.44		1.479*
Asian	1	12.48	2.44		
Hispanic of any race	1	13.04	1.98		-1.479*
Mental Disengagement	5	10.67	2.40	1.207	
Focus on and Venting of Emotions	5	9.58	3.12	0.502	
Use of Instrumental Social Support	5	10.98	2.89	1.738	
Active Coping	5	11.02	2.34	0.329	
Denial	5	6.94	2.70	1.567	
Religious Coping	5	10.67	4.10	18.77**	
White	5	9.97	4.15		
Black/African American	1	12.65	3.28		-2.679*
American Indian/Native Alaskan	1	13.24	3.00		-3.264*
Black/African American	5	12.65	3.28		
White	1	9.97	4.15		2.679*
Hispanic of any race	1	10.58	3.56		2.067*
Asian	1	9.18	4.25		3.476*
Two or more races	1	10.85	4.15		1.802*
Hispanic of any race	1	10.58	3.56		
Black/African American	1	12.65	3.28		-2.067*
American Indian/Native Alaskan	1	13.24	3.00		
American Indian/Native Alaskan	5	13.24	3.00		
White	1	9.97	4.15		3.264*
Hispanic of any race	1	10.58	3.56		2.653*
Asian	1	9.18	4.23		4.062*
Asian	5	9.18	4.23		
Black/African American	1	12.65	3.28		-3.476*
American Indian/Native Alaskan	1	13.24	2.10		-4.062*
Two or more races	1	10.85	4.15		
Black/African American		12.65	3.28		-1.802*
Humor	5	9.57	3.33	1.833	
Behavior Disengagement	5	7.10	2.49	1.234	

Table 5 (continued)

COPE Subscale	df	M	SD	F	Games Howell
Restraint Coping	5	9.97	2.29	3.358*	
White	1	9.79			
Hispanic of any race	1	10.62	1.76		-.833*
Use of Emotional Social Support	5	10.17	3.41	1.074	
Substance Use	5	6.52	3.17	1.367	
Acceptance	5	11.28	2.46	1.693	
Suppression of Competing Activities	5	9.91	2.23	0.538	
Planning	5	11.58	2.68	2.292*	

Note. Range on all COPE subscales is 4-16. * indicates $p \leq 0.05$, ** indicates $p \leq 0.01$.

M_M=10.45, SD_M=2.68; t=4.454, (p ≤.001). Furthermore, women had a greater tendency towards

Religious Coping (M_W= 11.09, SD_W=4.10; than men (M_M= 9.86, SD_M=3.96; t=4.765, p ≤ .001).

Women also had a greater propensity toward the Use of Emotional Social Support ($M_{W=}$10.81,

SD_W=3.43) than men (M_M=8.96, SD_M=2.98; t=9.218, p ≤.001).

By contrast, men showed a significantly higher COPE score than women on two

subscales; Humor (M_M=10.13, SD_M=3.20; M_W=9.28, SD_W=3.37; t= -4.000, p ≤ .001) and

Substance Use (M_M= 6.79, $SD_{M=}$3.15; M_W= 6.38, $SD_{W=}$3.18; t= -2.027, p≤ .05).

Although the means between genders on all other COPE subscales varied slightly, data

indicated there to be no significance between genders on the remaining subscales; Active

Coping, Denial, Behavioral Disengagement, Restraint Coping, Acceptance, Suppression of

Competing Activities and Planning. Table 6 shows the descriptive statistics of gender and COPE

subscales as well as t values and significance of each test. Since there were found to be

significant differences between men and women in how they cope with stress the null

hypothesis, that there is no significant difference between genders in the means by which they

cope with stress is rejected.

Comparison Between Institution A and Institution B on COPE

Hø1d There is no significant difference between institutions and the means by which

students cope with stress.

To examine if there was a significant difference in the means on COPE subscales

between students at Institution A and Institution B, a series of an independent samples t test were

conducted. Although results indicated that on most subscales the means were similar, having no

significant difference, there were found to be some significant differences in coping between

Table 6

COPE Subscales and Gender Differences

	Women			Men			
	n	*M*	*SD*	*n*	*M*	*SD*	*t*
Positive Reinterpretation and Growth	705	12.39	2.43	376	12.06	2.61	2.048*
Mental Disengagement	707	10.96	2.39	376	10.10	2.32	5.659***
Focus on and Venting of Emotion	706	10.37	3.08	376	8.07	2.55	13.154***
Use of Instrumental Social Support	707	11.26	2.96	376	10.45	2.68	4.454***
Active Coping	707	11.05	2.27	376	10.95	2.44	.671
Denial	706	6.95	2.72	376	6.93	2.65	.128
Religious Coping	707	11.09	4.10	375	9.86	3.96	4.765***
Humor	706	9.28	3.37	376	10.13	3.20	-4.000***
Behavioral Disengagement	707	7.14	2.51	376	7.03	2.46	.696
Restraint Coping	705	10.05	2.29	376	9.81	2.27	1.642
Use of Emotional Social Support	707	10.81	3.43	376	8.96	2.98	9.218***
Substance Use	705	6.38	3.18	376	6.79	3.15	-2.027*
Acceptance	705	11.34	2.39	376	11.16	2.59	1.170
Suppression of Competing Activities	706	9.96	2.21	376	9.79	2.26	1.227
Planning	707	11.67	2.60	376	11.39	2.80	1.649

Note. COPE subscale range 4-16. * indicates $p \leq 0.05$, *** indicates $p \leq 0.001$.

students at these two institutions. On the Use of Instrumental Social Support, the mean from students at Institution A, (M_A=11.07, SD_A =2.86) which is a large research university, was significantly different from students at Institution B (M_B=10.48, SD_B=3.05; t=2.365, $p. \leq$.0.05), which is a medium size university. Data indicated that students at Institution A also use Denial (M_A=7.01, SD_A=2.72) more than students at Institution B (M_B=6.53, SD_B=2.51; t=2.071, $p \leq$ 0.05). Behavioral Disengagement was found to be used significantly more by students at Institution A (M_A= 7.22, SD_A=2.53), than students at Institution B: (M_B=6.38, SD_B=2.08; t= 4.539, $p \leq$.001). Similarly, students at Institution A (M_A=6.67, SD_A 3.21) were found to employ Substance Use to cope with stress more than students at Institution B (M_B=5.62, SD_B=2.76; t=4.260, $p \leq$ 0. 001). Conversely, Institution B was found to use two coping strategies significantly more than students at Institution A. Students at Institution B (M_B=11.00, SD_B=3.96), which has a higher concentration of Black/African American and American Indian/Native Alaskan students, use Religious Coping more than students at Institution A, (M_A=10.49, SD_A= 4.09; t= 3.551, $p \leq$ 0.001). Likewise students at University B utilize Planning, (M_B=12.03, SD_B=2.64, more than students at Institution A (M_A= 11.50, SD_A=2.68; t= -2.293, $p \leq$ .0.05). On the remaining nine subscales students from both institutions showed similar means in coping. However, since there were found to be significant differences in the means on coping between students at Institution A and Institution B the null hypothesis, that there is no significant difference between institutions and the means by which students cope with stress is rejected. Table 7 shows the results of the independent t tests comparing Institution A to Institution B on all COPE subscales, including descriptive statistics and significance values.

Table 7

Comparison of Institution A and Institution B on COPE

COPE Subscale	Institution	*n*	*M*	*SD*	*t*
Positive Reinterpretation and Growth					
	Institution A	927	12.23	2.50	-1.479
	Institution B	156	12.55	2.47	
Mental Disengagement					
	Institution A	927	10.65	2.40	-0.762
	Institution B	158	10.80	2.43	
Focus on and Venting and of Emotions					
	Institution A	927	9.62	3.14	1.001
	Institution B	157	9.35	2.96	
Use of Instrumental Social Support					
	Institution A	927	11.07	2.86	2.365*
	Institution B	158	10.48	3.50	
Active Coping					
	Institution A	927	11.02	2.35	0.128
	Institution B	158	10.99	2.27	
Denial					
	Institution A	927	7.01	2.72	2.071*
	Institution B	157	6.53	2.52	
Religious Coping					
	Institution A	927	10.49	4.09	-3.551***
	Institution B	157	11.00	3.96	
Humor					
	Institution A	927	9.66	3.26	1.967
	Institution B	157	9.04	3.72	
Behavioral Disengagement					
	Institution A	927	7.22	2.53	4.539***
	Institution B	158	6.38	2.08	
Restraint Coping					
	Institution A	927	9.96	2.30	-0.353
	Institution B	156	10.03	2.23	
Use of Emotional Social Support					
	Institution A	927	10.24	3.41	1.652
	Institution B	156	9.76	3.31	

Table 7 (continued)

COPE Subscale	Institution	*n*	*M*	*SD*	*t*
Substance Use					
	Institution A	927	6.62	3.21	4.260***
	Institution B	156	5.62	2.76	
Acceptance					
	Institution A	927	11.29	2.42	0.234
	Institution B	136	11.24	2.68	
Suppression of Competing Activities					
	Institution A	927	9.96	2.26	1.919
	Institution B	157	9.59	2.04	
Planning					
	Institution A	927	11.50	2.68	-2.293*
	Institution B	158	12.03	2.64	

Note. COPE subscale range 4-16. * indicates $p \leq 0.05$, *** indicates $p \leq 0.001$.

Interactions on COPE

To determine if there was an interaction among generation status, racial ethnic group and gender on any of the 15 subscales within the COPE, three way ANOVAs were conducted on each of the individual subscales. While data indicated there to be significant differences on independent variables on some subscales, there was found to be no interaction between the three variables on each 14 of the subscales. The only COPE subscale that was found to have an interaction was on Acceptance which indicated an interaction between gender, racial/ethnic group and generation status ($p\leq.$ 0.05). However, post hoc tests revealed no significant interactions between these variables. This may be a result of unequal groups sizes as well as the influence of intersectionality within subgroups (Cole, 2009). Results of this analysis are available in Appendix C.

Additionally a series of two way ANOVAs were conducted on each of the COPE subscales to determine if there were statistically significant interactions between gender and race/ethnicty. While 14 of the 15 subscales indicated there to be no interaction between gender and race/ethnicity, Active Coping showed a significant interaction between gender ($M_M=10.95$, $SD_M=2.44$; $M_W=11.05$, $SD_W=2.27$; $F=1.799$), and race ($M_W=10.97$, $SD_W=2.29$; $M_B=11.07$, $SD_B=2.44$; $M_H=11.08$, $SD_H=2.21$; $M_N=11.05$, $SD_N=2.67$; $M_A=10.88$, $SD_A=2.13$; $M_{TM}=11.33$, $SD_{TM}=2.58$; $F=2.17$, $p\leq.$ 0.050). However, while an interaction was indicated between gender and race, when tested separately to determine a main effect, neither gender ($M_M=10.95$, $SD_M=2.44$; $M_W=11.05$, $SD_W=2.27$; $F=1.799$, $p\geq 0.05$) nor race/ethnicity ($M_W=10.97$, $SD_W=2.29$); $M_B=11.07$, $SD_B=2.44$; $M_H=11.08$, $SD_H=2.21$; ($M_N=11.05$, $SD_N=2.67$; $M_A=10.88$, $SD_A=2.13$; $M_{TM}=11.33$, $SD_{TM}=2.59$; $F=.982$, $p\geq0.05$) showed a significant influence on Active Coping. Furthermore, although the two-way ANOVA indicated a significant interaction between gender

and race on Active Coping, post hoc comparisons revealed no significant interaction within groups. This result supports accounting for intersectionality in future research as phenomena within subgroups may tend to be obscured among large groupings (Cole, 2009). Results of this two-way ANOVA are presented in Appendix C.

Another series of two way ANOVAs were conducted to determine if there was a significant interaction between the two independent variables: generation status and gender on any of the COPE subscales. Although 14 of the 15 subscales indicated there to be no significant interaction between generation status (continuing generation and first generation) and gender, one subscale, Planning showed a significant interaction between generation status and gender: Both continuing generation women and men ($F= 3.907$, $p \leq 0.05$) (M_{CGW}=11.62, SD_{CGW}=2.49; M_{CGM}=11.60, SD_{CGM}=2.61) had more of a tendency to use planning to cope with stress than first generation women and men (M_{FGW}=11.60, SD_{FGW}=2.74, M_{FGM}=11.03, SD_{FGM}=3.08) used this type of coping. The greatest difference in means was between first generation women and first generation men, with first generation women showing a higher tendency towards the use of Planning than first generation men (M_{FGW}=11.60, SD_{FGW}=2.74, M_{FGM}=11.03, SD_{FGM}=3.08).

Two way ANOVAs were also conducted to determine if there were statistically significant interactions between gender and institution on any of the 15 cope subscales. Results indicated that there were statistically significant interactions on four of the COPE subscales. On Mental Disengagement (F=5.429, $p \leq 0.05$) women at Institution A ($M_{WA=}$10.98, SD_{WA}=2.37), had a higher tendency than women at Institution B ($M_{WB=}$10.81, $SD_{WB=}$2.51) to use this type of coping. However, men at Institution A ($M_{MA=}$9.98, $SD_{MA=}$ 2.30), had less of a tendency to use Mental Disengagement than men at Institution B ($M_{MB=}$10.80, SD_{MB}=2.31). On the Use of Instrumental Social Support (F= 4.038, $p \leq 0.05$), women at Institution A(M_{WA}=11.40,

SD_{WA}=2.90), had a higher tendency than women at Institution B (M_{WB}=10.46, SD_{WA}=3.20).

While men at Institution A (M_{MA}=10.43, SD_{MA}=2.67), had less of a tendency to utilize the Use

Instrumental Social Support than men at Institution B (M_{MB}=10.53, SD_{MB}=2.76). On the

interaction between institution and gender on Restraint coping (F=4.991, $p \leq 0.05$), women at

Institution A (M_{WA}=10.08, SD_{WA}=2.30) tend to use Restraint Coping more than women at

Institution B (M_{WB}=9.83, SD_{WB}=2.23). While men at Institution A (M_{MA}=9.71, SD_{MA}=2.27) had

less of a tendency to use Restraint coping than men at Institution B (M_{MB}=10.38, SD_{MB}=2.20.

Results also indicated a statistically significant interaction between institution and gender on the

Use of Emotional Social Support (F= 4.764, $p \leq 0.05$) women at Institution A (M_{WA}=10.94,

SD_{WA}=3.41) tend to use Emotional Social Support more than women at Institution B

(M_{WB}=10.02, SD_{WA}=3.48). However, men at Institution A (M_{MA}=8.90, SD_{MA}=2.99) have less of a

tendency to use Emotional Social Support for coping compared to men at Institution B

(M_{MB}=9.27, SD_{MB}=2.93).

Additional series of two way ANOVAs were conducted to determine if there were

statistically significant interactions between generation status and race/ethnicity, institution and

race/ethnicity, institution and generation status. Results from these two way ANOVAs indicated

that there were no statistically significant interactions between these variables on any of the 15

COPE subscales.

Correlations Between COPE Subscales

To determine whether there were significant relationships between COPE subscales

Pearson's correlation coefficients were computed. The results of this correlational analysis

indicated that there were many significant relationships between COPE subscales. These

correlations show the strength of the relationships between subscales indicating which subscales

119

have a tendency to be utilized together and which subscales have an inverse relationship. The strongest positive correlation ($r=.74$, $p \leq 0.01$) was between Use of Instrumental Social Support and Use of Emotional Social Support. Students who use social support for information tend to also turn to others for emotional support when coping with stress. The relationship between Active Coping and Planning ($r=.71$, $p \leq 0.01$) was also found to be strong. If students use Active Coping they have a high tendency to use Planning. Both of these types of coping focus on coping directly with the stressor and tend to be used together by students. Another strong correlation was between Planning and Positive Reinterpretation and Growth ($r=.65$, $p \leq 0.01$). Students who focus on making a plan to cope with the stress have a tendency to look at how they can grow from the situation. Moderate positive correlations were found between Positive Reinterpretation and Growth and Use of Instrumental Social Support ($r=.41$, $p \leq 0.01$), and Positive Reinterpretation and Growth and Acceptance ($r=.47$, $p \leq 0.01$). These moderate correlations indicate that students who use Positive Reinterpretation and Growth, also have a tendency to seek out support that may be able to help them find a solution to their problem and look at their situation in positive way or see how they can grow from their experience, and they are more likely to accept their situation. The strongest negative correlations were between Substance Use and Planning ($r= -.17$, $p \leq 0.01$) and Behavior Disengagement and Planning ($r= -.19$, $p \leq 0.01$). These inverse relationships although considered weak (Fields, 2005), were found to be significant and indicate that if a student uses Substances to cope with stress they are not likely to employ Planning as a coping strategy. Similarly, if students use Behavior Disengagement they are not likely to use Planning to cope with stress. Subscales that are often referred to as negative or dysfunctional; Denial, Substance Use and Behavioral Disengagement all were negatively correlated to Positive Reinterpretation and Growth, inferring that students who try to grow from

their experience, or see something positive in the situation tend not to utilize maladaptive means of coping. The abundance of significant correlations found between coping subscales indicates that the use of one coping strategy influences whether or not students have a tendency towards the use of another coping strategy. Table 8 presents the correlation matrix of the fifteen COPE subscales.

Results of the Perceived Stress Scale

The Perceived Stress Scale measures the perception students have of their overall level of stress in their life over the past month. This measurement is not specific to types of stress people experience, but is a global measure of stress. The overall mean on the Perceived Stress Scale for the research participants was ($M= 20.32$, $SD= 5.93$). Cronbach's alpha on the PSS 10 item scale was $\alpha=.78$. Student responses to the PSS by percentage are presented on Table 9. Descriptive statistics including number of participants, mean, and standard deviation for each item of the PSS are presented on Table 10.

Hø2 There is no statistically significant difference among students in how they perceive their level of stress by generation status, race/ethnicity, gender, or institution.

Independent-samples t tests were used to determine the differences in means of dichotomous variables (gender, generation status, and institution) on total Perceived Stress Scale-10 (PSS), with a significance level of $p\leq 0.05$. Student ts were used when Levene's test determined equal variance. When a difference in variance was assumed then the Welch's t was reported. A one-way ANOVA was also conducted to examine the differences in means among different racial/ethnic students. To determine the relationships between perceived stress and COPE subscales, Pearson's correlations were utilized. Finally, a multiple regression analysis was conducted to evaluate how well the independent variables (gender, race/ethnicity, generation

121

Table 8

Correlations Between COPE Subscales

	PRAG	MD	FVE	UISS	ACTC	DEN	RC	HU	BD	RES	UESS	SUBU	ACCEPT	SCA	PLAN
PRAG	1	.191**	.099**	.409**	.575**	-.105**	.263**	.233**	-.163*	.380**	.305**	-.160**	.468**	.365**	.650**
MD		1	.328**	.230**	.178**	.285**	.111**	.238**	.297**	.281**	.223**	.187**	.264**	.300**	.123**
FVE			1	.460**	.234**	.267**	.119**	0.003	.295**	.174**	.624**	.131**	.078*	.316**	.176**
UISS				1	0.467	.083**	.183**	.136**	-.071*	.290**	.740**	-.017	.214**	.374**	.452**
ACTC					1	0.011	.172**	.194**	-.088*	.371**	.350**	-.083**	.429**	.509**	.706**
DEN						1	.082**	.295**	.613**	.198**	.123**	.420**	-.022	.250**	-.109**
RC							1	-.010	-.026	.187**	.188**	-.109**	.111**	.153**	.232**
HU								1	0.258	.171**	0.047	.226**	.272**	.229**	.129**
BD									1	0.196**	.105**	.501**	0.034	.191**	-.191**
RES										1	.249**	.077*	.414**	.394**	.376**
UESS											1	-.003	.142**	.325**	.332**
SUBU												1	0.023	.121**	-.171**
ACCEPT													1	.290**	.373**
SCA														1	.492**
PLAN															1

Note. *indicates $p \leq 0.05$, **indicates $p \leq 0.01$, ***indicates $p \leq 0.001$. For descriptions of COPE subscale abbreviations see Appendix G.

Table 9

Frequencies of PSS Items by Percentage of Sample

	In the last month how often have you:	Never	Almost never	Sometimes	Fairly often	Very often
PSS 1	been upset because of something that happened unexpectedly	4.20%	19.00%	43.50%	21.90%	11.30%
PSS 2	felt you were unable to control the important things in your life	3.10%	14.90%	32.70%	34.40%	14.80%
PSS 3	felt nervous and stressed	1.80%	8.20%	28.60%	28.80%	32.60%
PSS 4	felt confident about your ability to handle your personal problems	1.80%	11.50%	34.70%	33.60%	18.20%
PSS 5	felt that things were going your way	3.10%	18.20%	43.50%	27.10%	7.60%
PSS 6	found that you could not cope with all the things you had to do	11.4%	25.90%	34.20%	19.80%	8.60%
PSS 7	been able to control irritations in your life	2.00%	14.90%	43.90%	30.70%	8.10%
PSS 8	felt that you were on top of things	4.10%	16.20%	40.90%	29.10%	8.90%
PSS 9	been angered because of things that were outside of your control	6.20%	19.50%	34.50%	25.70%	13.90%
PSS 10	felt difficulties were piling up so high that you could not overcome them	10.8%	22.80%	29.20%	22.50%	14.70%

Table 10

Descriptive Statistics of Total Sample and PSS Items

	In the last month how often have you:	n	M	SD
PSS 1	been upset because of something that happened unexpectedly	1,085	2.17	1.02
PSS 2	felt you were unable to control important things in your life	1,085	2.43	1.02
PSS 3	felt nervous and stressed	1,084	2.82	1.04
PSS 4	felt confident bout your ability to handle your personal problems	1,084	1.45	0.98
PSS 5	felt that things were going your way	1,081	1.82	0.93
PSS 6	found that you could not cope with all the things you had to do	1,084	1.88	1.12
PSS 7	been able to control irritations in your life	1,081	1.72	0.89
PSS 8	felt that you were on top of things	1,078	1.77	0.97
PSS 9	been angered because of things that were outside of your control	1,083	2.22	1.10
PSS 10	felt difficulties were piling up so high that you could not overcome them	1,084	2.07	1.21

Note. Range on each PSS item is 0-4.

status, and institution) predicted students' perception of stress in their lives. Table 11 presents *t*-test results of perceived stress by generation status, gender, and institution, as well as ANOVA results of perceived stress by racial/ethnic group.

Perceived Stress Scale and Generation Status

Hø2a There is no statistically significant difference among students in how they perceive the level of stress by generation status.

This hypothesis was tested using a *t* test of independent samples with a significance level of $p \leq 0.05$ to determine if there is a statistical difference between the means of the independent variable (generation status) and the dependent variable (perceived stress); as assessed by total PSS-10 score. Results indicated no significant difference between first generation (M_{FG}=20.48, SD_{FG}= 6.11) and continuing generation students (M_{CG}= 20.23, SD_{CG}= 5.82; t= -0.672, $p \geq 0.05$) in students' perception of stress in their lives. Because there was found to be no significant difference between first generation and continuing generation students in how they perceive the level of stress in their life the null hypothesis is not rejected.

Perceived Stress Scale and Race/Ethnicity

Hø2b There is no statistically significant difference in perceived stress by race/ethnicity.

This hypothesis was tested using a one-way analysis of variance (ANOVA) with a significance level of. 05 to determine if there is a statistical difference between the means of the independent variable (racial/ethnic groups) and the dependent variable (perceived stress), as assessed by total PSS-10 score.

While means varied slightly among racial/ethnic groups, there was found to be no significant difference among racial/ethnic students in their level of perceived stress. (M=20.32 SD=5.94; F=.810, $p \geq 0.05$). Although this study sought to determine the differences in perceived

125

Table 11

Results of Independent t-Tests and ANOVAs: Perceived Stress Scale and Generation Status, Gender, Institution and Racial/Ethnic Group

	n	*M*	*SD*	*t*	*F*
Perceived Stress Scale	1080	20.32	5.94		
Continuing Generation Students	665	20.23	5.82		
				-.672	
First Generation Students	415	20.48	6.11		
Women	707	21.33	5.87		
				7.94***	
Men	376	18.40	5.58		
Institution A	927	20.37	5.74		
				0.514	
Institution B	158	20.06	7.01		
PSS ANOVA	1080	20.32	5.94		0.810
White	683	20.31	5.80		
Black/African American	230	20.27	6.38		
Hispanic of any race	53	20.32	5.89		
American Indian	21	19.62	6.95		
Asian	34	22.12	4.89		
Two or more races	60	19.72	5.94		

Note. ***indicates $p \leq 0.001$.

stress among different racial/ethnic groups, the results of statistical tests indicate that students are more similar than they are different in their perception of stress. Subsequently, since there is no significant difference in how racial/ethnic students perceive stress, the null hypothesis is not rejected.

Perceived Stress and Gender

Hø2c There is no statistically significant difference in how students perceive stress by gender.

This hypothesis was tested using a *t*-test of independent samples with a significance level of $p \leq 0.05$ to determine if there is a statistical difference between the means of the independent variable (gender) and the dependent variable (perceived stress); as assessed by total PSS score. Descriptive statistics indicated that women (M_W=21.33, SD_W 5.87) had a slightly higher mean on the Perceive Stress Scale than the overall mean of the sample (M_{All} = 20.32, SD_{All}=5.94). Furthermore, independent samples *t* tests revealed that the mean of perceived stress between genders was significantly different, with males having a lower mean (M_M= 18.40, SD_M= 5.58) (t=.94, $p \leq$ .001) than women (M_W=21.33, SD_W 5.87). Results indicated that women have a tendency to have a higher perception of stress than men. Therefore, since there is a statistical difference between women and men in their perception of stress the null hypothesis is rejected.

Perceived Stress Scale and Institution

Hø2d There is no statistically significant difference in how students perceive stress by institution.

This hypothesis was tested using an independent-samples *t*-test with a significance level of $p \leq 0.05$ to determine if there was a statistical difference between the means of the independent variable (institution) and the dependent variable (perceived stress) as assessed by

127

total PSS score. Means for Institution A ($n=927$, $M=20.37$, $SD=5.74$) and Institution B ($n=158$, $M=20.06$, $SD=7.01$) were similar and the slight difference was not statistically significant ($t=.514$) $p \geq 0.05$. Therefore, the null hypotheses that there is no significant difference in perceived stress between students at different institutions is not rejected.

Correlation Between Perceived Stress and COPE Subscales

Hø3 There is no statistically significant relationship between perceived stress and how students cope with stress.

In an effort to determine if there is a relationship between the level of stress that students perceive in their lives (as assessed by the PSS-10) and the 15 COPE subscales bivariant correlation were conducted and Pearson's correlation coefficients were computed. A p value of less than 0.05 was required for significance. The results of the correlation analyses showed that 10 out of 15 correlations were statistically significant. Positive correlations that were statistically significant were found for six of the subscales. These subscales included: Use of Emotional Social Support ($r=.09$, p$\leq$0.01), Denial ($r=.26$, $p\leq$0.01), Substance Use ($r=.27$, $p\leq$0.01), Mental Disengagement ($r=.27$, $p\leq$0.01), Behavioral Disengagement ($r=.29$, $p\leq$0.01) and Focus on and Venting of Emotions ($r=.38$, $p\leq$0.01). Negative correlations were found to be statistically significant on four subscales. These subscales were: Acceptance ($r=-.07$, $p\leq$0.05), Humor ($r=-.07$, $p\leq$0.05), Active Coping ($r=-.08$, $p\leq$0.01), Positive Reinterpretation and Growth ($r=-.19$, $p\leq$0.01). Correlations ranged from a low negative correlation $r=-.07$ on the Humor subscale to a moderate positive correlation $r=.38$ on Focus on and Venting Emotions. This suggests that the higher a student's perceived stress the more likely they were to cope utilizing Use of Emotional Social Support, Denial, Substance Use, Mental Disengagement, Behavioral Disengagement, and Focus on and Venting of Emotions. Results also indicated that the higher a student's perceived

stress the less likely they were to employ Acceptance, Humor, Active Coping, and Positive

Reinterpretation and Growth. Since there is a statistically significant relationship between

perceived stress and most of the subscales of the COPE the null hypothesis stating there is no

significant relationship between perceived stress and coping, is rejected. Table 12 shows the

correlations between perceived stress and coping as well as significance levels. Although these

correlations were found to be significant, it cannot be assumed that the PSS score can predict

how one will cope with stress. A regression analysis was conducted to determine predictability

of perceived stress by independent variables, generation status, institution, gender, and

racial/ethnic group.

Interactions Between Variables on PSS

Six two way ANOVAs were conducted to determine if there were interactions between

any of the independent variables (generation status, race/ethnicity, gender, and institution on

Perceive Stress (PSS). Results showed no significant interaction between gender and

race/ethnicity ($F=1.683$, $p \geq 0.05$), gender and generation status ($F=.403$, $p \geq 0.05$), gender and

institution ($F=1.612$, $p \geq 0.05$), race and generation status ($F=1.002$, $p \geq 0.05$) race and institution

($F=1.888$, $p \geq 0.05$), or institution and generation status ($F=.579$, $p \geq 0.05$).

Multiple Regression Analysis

A multiple regression analysis was employed to determine the predictability of PSS score

using one set of predicators. In this regression analysis total PSS score was the criterion variable,

and generation status, race/ethnicity, gender and institution were the predictor variables. Gender

was found to be the only significant predictor of PSS score among this sample. Data indicated a

negative relationship between total PSS score and Gender $r =-.239$. This means that a difference

Table 12

Results of Correlation Between Total PSS Score and COPE Subscales

COPE Subscale	*n*	*r*
Restraint coping	1,083	-.017
Religious coping	1,084	-.019
Acceptance	1,084	-.063*
Humor	1,084	-.073*
Active coping	1,085	-.079**
Planning	1,085	-.136
Positive reinterpretation and growth	1,083	-.185**
Use of instrumental social support	1,085	.018
Suppression of competing activities	1,085	.028
Use of emotional social support	1,085	.087**
Denial	1,084	.264**
Substance Use	1,083	.265**
Mental disengagement	1,085	.267**
Behavioral disengagement	1,085	.286**
Focus on and venting of emotions	1,084	.375**

Note. **Correlation is significant at the 0. 01 level (2-tailed); *Correlation is significant at the

0. 05 level (2-tailed).

in gender influences PSS score. Descriptive data showed a difference between men and women on total PSS score; women (*Wn*=707, *M*=21.33, *SD*=5.87) than men (*Mn*=376, *M*=18.40, *SD*=5.58) and that there was a statistically significant difference on perceived stress between genders (t=7.94, *p* ≤ .001). Therefore, the results indicated that it can be predicted that women are more likely to report higher levels of stress than men. The results of the regression analysis are shown on Table 13 which includes unstandardized beta score, standard error, the standardized beta, as well as which predictor had statistical significance.

Summary of Chapter 4

Results from this study comparing how first generation and continuing generation students of different racial/ethnic groups cope with stress and perceived stress in their lives indicated that there are more similarities than there are difference among students in both coping and perception of stress. Surprisingly, although there is an abundance of literature that asserts the many differences between first generation and continuing generation students I did not find any significant differences in either coping or perception of stress between these two student populations. However, there were significant differences found by race/ethnicity, gender and institution in coping as assessed by the COPE. Additionally in the analysis of how students perceive stress, data indicated that perception of stress was not contingent on generation status, racial/ethnic group, or institution. The only variable that was associated with significant differences in perception of stress was gender. While there were found to be a few significant differences in coping among different racial/ethnic groups, this present study found more similarities in coping among these diverse racial/ethnic groups. To determine the relationship between perceived stress and coping, correlations were conducted using total PSS scores and

Table 13

Summary of Multiple Regression Analysis

	B	SE B	β
Generation Status	0.160	0.364	0.013
Race/ethnicity	0.001	0.130	0.001
Gender	-2.945	0.367	-.231*
Institution	-0.328	0.510	-0.019

Note. * indicates a significant predictor of PSS score.

COPE subscales. Results of the correlations were presented in this chapter and indicated that how students perceive their level of stress relates to the type of coping strategies they employ.

Data indicated that there were many correlations between COPE subscales, indicating that students tend to use more than one coping strategy when coping with stress. Additionally, The highest positive correlation was between Perceived Stress and Focusing on and Venting of Emotions. This relationship was found to be statistically significant and is considered to be a moderate positive correlation. Which means that the higher students' perceived stress the more likely they were to use this coping strategy. The highest negative correlation was on Positive Reinterpretation and Growth. Although statistically significant, this correlation coefficient is considered to be a weak negative relationship between variables. However, it infers that the higher a students' perceived stress the less likely they were to use this coping strategy.

Correlations were also computed between COPE subscales, and data indicated there to be many significant relationships between subscales. A regression analysis revealed that gender was the only variable that was found to predict stress. Women have a tendency to perceive stress in their lives more than men perceive stress in their lives. A discussion of these findings is presented in chapter five.

As important as it is for college administrators and counseling center directors to understand the differences among diverse student populations, in order to provide the most effective mental health programs and services, I assert that it is as equally important for them to understand similarities among these students. Subsequently, chapter five will offer the reader with possible explanations for differences as well as similarities among these diverse student populations. Additionally, implications will be made for college administrators and counseling

center directors which may aid them in reaching out and providing services to help all students

cope with stress they experience during their tenure in higher education.

CHAPTER FIVE: DISCUSSION

It has been assumed that differences among students of different generation statuses would result in variances in how these students cope with stress. However, data collected from this study found there to be no significant differences in how first generation and continuing generation students cope with stress. Chapter five provides a discussion comparing the results from this study to previous research on coping with stress and perceived levels among college students. Suggested explanations are presented for differences found among these diverse student populations. Similarities that are not significant, yet found to be important are also discussed. This chapter concludes with implications for practitioners and recommendations for future research, followed by a summary and conclusion to findings.

Theoretical Framework

This study was based on the framework of Vygotsky's sociocultural perspective, which maintains that to have a more comprehensive understanding of a one's development and behavior, the influence of their social and cultural background as well as demographic characteristics must be considered (Vygotsky, 1962, 1997). Subsequently, the demographic factors of generation status, racial/ethnic group, gender, and institution were tested to see if there is a significant difference in the means by which first generation and continuing generation students of different racial/ethnic groups cope with stress and whether there is a significant difference in how students perceive the level of stress in their lives.

Research Question #1

RQ1 Is there a difference among students in the way they cope with stress by generation status, race/ethnicity, gender or institution

Results from this study indicated that there are more similarities in coping among different student groups than there are differences. This is contrary to previous research comparing first generation and continuing generation students, and racial/ethnic minority students, which has primarily focused on differences between these students and their continuing generation and non-minority peers. For instance, Pascarella et al. (2004) contend that first generation students are at a clear disadvantage over continuing generation students, asserting they often lack academic preparedness when they enroll in higher education. Furthermore, they are more likely to come from lower socioeconomic families, and do not have a parent who has been to college and can help them navigate their academic journey. Stephens et al. (2012) found what they consider to be a cultural mismatch between first generation students and the university system. This mismatch encourages independence rather than interdependence, and makes adjusting to the challenges of college more difficult for first generation students compared to continuing generation students. Likewise, Welle and Graff (2011) posit that the way students cope with stress varies among racial/ethnic groups, citing data that indicates White and Black/African American students have diverse factors which contribute to stress tolerance. Furthermore, they contend that while Black/African American students have more stressors, they have fewer stress symptoms, inferring that they have a higher tolerance for stress than White students and therefore do not experience the same degree of negative effects of stress as their majority peers experience. Welle and Graff (2011) also state that women cope with stress differently than men. This is congruent with findings from this current study which inferred that there are both similarities as well as differences in coping between genders.

Although past research has contributed to a better understanding of the differences between these student populations, little has been written about similarities among diverse

136

student groups. Likewise, through this research study I sought to gain a more comprehensive understanding of differences between these students in how they cope with the stress, as well as how they perceive their level of stress. It should be noted that this study did not include an assessment of what conditions induce student stress. Subsequently, while student responses to stress may be similar, stress stimuli may vary.

Data indicated that the coping strategies that students had a tendency to use included Positive Reinterpretation and Growth, Active Coping, Planning, and Acceptance- all coping strategies that focus directly on the stress, trying to either eliminate or reduce the stress, or see the stress from a different perspective. Interestingly, while this might imply that students use effective coping, on the Perceived Stress Scale students had high response rates to "feeling they couldn't cope with all they had to do", "feeling things were piling up so high they could not overcome them", and "feeling unable to control the important things in their lives". So although students have a tendency to use more direct coping, data indicates they do not appear to have high self-efficacy in their ability to cope.

Results also found that students had a less of a tendency to use the COPE subscales, Substance Use, Denial and Behavior Disengagement to copoe with stress. These three strategies are most often considered dysfunctional types of coping. Although students reported using these coping strategies the least, data also suggested that when perceived level of stress is high they have a tendency to use "negative" coping strategies such as Denial, Substance Use, Mental Disengagement and Behavioral Disengagement.

Coping and Generation Status

Data from this study indicated that there was no significant difference in coping between first generation and continuing generation students. This is contrary to Mehta, Newbold, and

O'Rourke (2011) who found that first generation students are less likely to use active coping and less likely to use substances to cope with stress. Additionally they found that first generation students were more likely to put things in a broader perspective and to take time off work to cope with their stress. Contrary to those previous studies, results from this study concurred with Aspelmeier (2012), who found there to be few differences between first generation and continuing generation students. Data collected from this study indicated that first generation students and continuing generation students at both institutions cope with stress similarly. It is important to acknowledge that while there are differences in their sociocultural background and therefore their life experiences may be differ, the factors that produce stress in their lives may vary as well. Thus, both first generation and continuing generation students tend to cope with stress similarly.

Coping and Race/Ethnicity

Contrary to Welle and Graf (2011) who contend that students of different races cope differently with stress, the results of this study comparing coping among six different racial/ethnic groups found few differences in coping among these diverse student populations. This is congruent with Phinney and Hass (2003) who conducted a study at an urban college in Soutern California comprised of 80% non-White students. Their results indicated that how racial/ethnic groups cope with stress is not contingent on race/ethnicity. Furthermore, while there were some significant differences in coping on several of the fifteen COPE subscales, even within those subscales there were found to be similarities among some racial/ethnic groups in how they cope with stress. Cole (2009) in her discussion on intersectionality, contends that it is important to look for commonalties within groups that are most often thought to be extremely different.

138

Religious Coping

One type of coping that was found to be significantly different among racial/ethnic groups was on the Religious Coping subscale. Data indicated that both Black/African American and American Indian/Native Alaskan students were found to have significant differences in coping in comparison to White, Hispanic, Asian and students of two or more races. Both of these racial/ethnic groups use religious coping more than White, Hispanic, Asian and students of two or more races. One possible explanation for the difference in religious coping among these student groups is that for Black/African American and American Indian/Native Alaskan students, religion has been incorporated into their culture and into their identity development and therefore they are more likely to turn to their religion when coping with stress. Furthermore, Black/African Americans and American Indian/Native Alaskan, both have a history of being marginalized and have been nurtured in a tradition of religious based hope. Therefore, it is not surprising that Black/African American and American Indian students have a tendency to use religious coping more than White, Hispanic, Asian and students of two or more races. This data supports the findings of Weaver (1998) who contends that Native Americans do not separate their everyday life from their spirituality. Similarly, the results of this study concur with Norman (2008) who emphasizes that historically the Black/African American church has played an important role in the lives of its members, and therefore spirituality is an important source of coping for Black/African Americans. Furthermore, Black/African Americans report more positive religious coping than negative religious coping (Chapman & Steger, 2010). However, while White students reported using religious coping less than all other ethnicities, they were similar in religious coping to Asian students.

139

Surprisingly, Hispanics students did not show a similarity to Black/African American and American Indian/Native Alaskan students in their tendency towards Religious Coping. Furthermore, they showed no significant difference in coping among White, Asian and students of two or more races. This is contrary to what Hunt (1998) found maintaining that Hispanics, who have been steeped in a tradition of Catholicism, have over the past several decades been moving towards a greater affiliation with the dominant's culture religion of Protestantism. Perhaps as this student demographic becomes more acculturated to the majority student population, which in this sample population was White, they are becoming less grounded in their spiritual roots than they were in the past and therefore they use Religious Coping less often when confronted with stress.

Another possible explanation of differences and similarities in Religious Coping is that as Western European traditions continue to divide the sacred from the secular, emphasizing separation of church and state, White students as well as Asian students, who are more likely to come from continuing generation families may be adopting a more secular view of coping, rather than coping that includes a spiritual dimension. Furthermore, while academia espouses a sense of independence rather than dependence, and American culture advocates a stance of autonomy, White students and Asian students may be less prone to turning to a religious deity than Black/African American or Native American students; who have incorporated their religion into their way of life. Therefore, while religion has not been a part of their identity formation as it has been for Black/African American and Native American students, White students and Asian students may be less likely to turn to their religious faith for support when experiencing stress. Further research may warrant an exploration of factors that influence this tendency away from the use of Religious Coping among different racial/ethnic groups.

140

Restraint Coping

Results also indicated significant differences among racial/ethnic groups on Restraint Coping. This involves not responding prematurely, but waiting until the right time or best opportunity to confront the stressor, holding off doing anything about it until the situation permits, or making sure they do not make matters worse by acting too soon. Significant differences were found between Hispanic and White students. Hispanic students tend to use this type of coping more than White students use Restraint Coping. This tendency for Hispanic students to utilize this type of coping more than White students supports Smith, Stearn and Shatrova (2008) contention that there is a cultural indoctrination which discourages parents from confronting authority or advocating for their children when it means questioning authority. Subsequently, being a raised in a household where both children and parents have been marginalized by the majority culture, children may witness their parents refraining from taking action too quickly especially when it involves taking a risk that may challenge the status quo or any person they deem to be an authority figure. In the academic setting, lack of Restraint Coping could result in the student refraining from speaking to a professor if they have a question about a grade or being reticent in asking for additional help if they are having trouble with class content or class work. A tendency towards waiting before acting may influence Hispanic students from responding to stress as quickly as White students may respond. Additionally, being raised in a society that encourages taking action and speaking out for oneself may influence White students responding more quickly, and perhaps at times more impulsively.

Positive Reinterpretation and Growth

Results from this study also indicated that there were differences in coping on Positive Reinterpretation and Growth between Hispanic students and White students as well as indicating

a difference between Hispanic students and Asian students. Hispanics use this type of coping more than both White students and Asian students. Positive Reinterpretation and Growth includes trying to look for something positive in the situation or growing from the experience. A noteworthy observation from the data acknowledges that while both White students and Asian students use this type of coping less Hispanic students, as mentioned earlier, both of these student populations also tend to use religious coping less than other students. Perhaps using religious coping gives students a sense of hope that something good may come out of their stressful situation or perhaps religious coping may help students see their situation from a different perspective and therefore they are more likely to grow from the experience. Both Asian and White students have less of a tendency to use Positive Reinterpretation and Growth and Religious Coping than the other racial/ethnic students in this study.

Coping and Gender

Although there was found to be no difference in coping between first generation students and continuing generation students and few differences among different racial ethnic groups, the factor which had the greatest impact on differences in coping with stress was gender. Data from this study was congruent with previous studies which contend that there are significant differences in coping between genders (Lenz, 2010; Welle & Graff, 2011). However, results from the present study also indicated that there are many similarities in the ways men and women cope with stress. This concurs with Dyson and Renk (2006) who assert gender differences to be less than what have been previously reported.

Gender and Positive Reinterpretation and Growth

Women were found to be more likely than men to use Positive Reinterpretation and Growth, which means they tend to try to grow from the stressful situations in their lives and learn

142

from the experiences. Additionally, results from this study indicated a significant positive

relationship between Positive Reinterpretation and Growth and Religious Coping. Meaning that

students who use Positive Reinterpretation and Growth, are more likely to use Religious Coping.

Both methods of coping are used more among females than males and as postulated earlier in

this chapter it may be that one's religion gives a person a sense that good can come out of a

stressful event.

Gender and Mental Disengagement

Data collected from this study also connoted that women are more likely than men to use

Mental Disengagement, which involves doing things to take one's mind off the stressor. This

type of coping concurs with previous research, which is most often cited in the literature as

avoidance coping, and used more often by women than by men (Billings & Moos, 1981;

Soderstrom, Dolbier, Leiferman, & Steinhardt, 2000). While avoidance coping is most often

thought of as a dysfunctional type of coping, mental disengagement may actually help buffer the

negative impact of the stressor, as a person tries to distance him/herself from the stressor.

Gender and Emotion Focused/Social Support

Welle and Graf (2011) posit that although both men and women contend social support is

important to them as a resource for coping, social support is used more frequently by women

than by than men. Results from this study concurred with their findings, indicating that women

have a greater tendency than men towards the Use of Instrumental Social Support and the Use

Emotional Social Support. Both forms of coping are often referred to in the literature as Emotion

Focused Coping (Lazarus, 1976; Lazarus & Folkman, 1984). Gender socialization may

contribute to women using Emotion Focused Coping more than men. This concurs with Billings

and Moos (1981), who assert that traditional sex-role stereotypes assume women are more

sensitive and emotional and are more likely to use emotion focused coping. Data from this study agreed with previous research that posits women are more likely to use emotion focused coping than men (Lazarus & Folkman, 1984; Lenz, 2010). Although both men and women consider social support to be one of the most effective protector factors when coping with stress (Welle & Graf, 2011), women tend to use social support more than men. In fact, if anything, the lack of socialization and cultural support for men to use emotion focused coping strategies may be harmful to men, contributing to a higher propensity to use substances to cope with stress as well as to use humor in a negative vain.

Gender and Substance Coping

Data collected from this present study also found that men tend to use substances (alcohol or drugs) more than women to cope with stress. This is consistent with previous research which contends that men are more likely than women to use substances to cope with stress (ACHA, 2013) and Kieffer, Conin and Gawet (2006) who found men are more likely than women to drink to reduce tension while in college. The use of substances among college students is an ongoing concern among administrators on college campuses. One reason of concern about substance use by college students is that those who use substances to try to negate the effect of anxiety are more likely to suffer negative consequences, which may include a proneness to depression and suicide (Dennhardt & Murphy, 2011; Lamis, McCarthy, & Jahn, 2014). Subsequently, assessments of the effectiveness of current substance abuse programs are needed at institutions of higher education.

Gender and Humor Coping

Men were also found to have a tendency toward the use of humor more than women to cope with stress. There are several possible explanations to consider in trying to understand this

gender difference in coping. Women are more likely to have a support system which gives them an avenue to talk about their problem, while men are more likely to discuss things they do as opposed to feelings they have when talking to other men. Furthermore, rather than talking about how they feel men may use humor as a way of venting their emotions or as a reaction formation for avoiding how they really feel about a stressor. Traditional sex role stereotypes may also explain this difference between men and women in the use of humor for coping. Perhaps men may feel threatened by directly sharing with others how they feel about their stress, however they may feel more inclined to vent their feelings through the use of humor. However, humor can also be seen as an aggressive means of coping which may be damaging when it is used to release tension by striking out at someone verbally; (i. e. humor that is used to bully). Men are more prone to use aggressive tactics when dealing with emotions (Giancola et al., 2009), so it may be that men are less threatened when appearing to be aggressive. It is worth noting that Lomas, Stough, Hansen and Downey (2012), found a negative relationship between emotional intelligence and bullying. The lower one's emotional intelligence, the higher one's use of bullying. Perhaps men who are lower in emotional intelligence are more likely to use bullying by utilizing humor as a means of coping with stress. Future studies could consider the relationship among coping, emotional intelligence, and bullying.

Institution and Coping

Data collected from this study found there to be significant differences in coping between students at Institution A and Institution B on six COPE subscales. Results indicated that students at Institution A tend to employ the Use of Instrumental Social Support more than students at Institution B. This type of social support includes talking to and seeking out advice from someone about what to do about a problem, perhaps talking to someone who has coped with a

145

similar situation. Students at Institution A also tend to utilize Denial, Behavioral Disengagement and Substance Use more than students at Institution B. These types of coping are often referred to in the literature as Avoidance Coping (Carver, 1989, Holohan et al., 2005; Lee & Cohn, 2010). It must be acknowledged that while denial and behavior disengagement may be dysfunctional for one student there may be circumstances when these types of coping may be effective means of coping for another student. However, the use of substances to cope with stress, rather than alleviating the stressor may actually exacerbate the stress for students. Consequently, the use of substances among college students has been a growing concern of stakeholders within higher education. Data from this study also indicated that students at Institution B used Religious Coping and Planning more than students at Institution A.

Although not conclusive, there are several possible explanations for the differences in coping between students at these two institutions. Results indicated that the only subscale that was influenced by both racial/ethnic group and institution was Religious Coping. Since the percentage of Black/African American and American Indian/Native Alaskan students at Institution B was considerably higher than at Institution A, it is not surprising that students at Institution B reported the use of Religious Coping more than students at Institution B. However, race/ethnicity did not influence coping on the other five COPE subscales that were found to have significant differences between students at these two institutions. One factor that should be considered is the size of the institution. Institution A is a large research university with undergraduate enrollment and class sizes larger than Institution B, which is a medium size university that boasts small class size. It may be that students who attend larger universities are more likely to find it easier to detach from coping with a problem, due to a feeling of anonymity in a large environment. Students at smaller sized institutions with smaller class sizes may feel

more inclined to cope more directly with the stressor due to having less of a sense of anonymity on a smaller campus or in classes with fewer students. However, it is interesting that students at the larger university (Institution A) had more of a propensity to seek out others who may perhaps have gone through a similar problem than students at Institution B.

Another factor that should be considered, but which was not analyzed in this study, is the influence of socioeconomic status (SES) on coping. Congruent with Wilson (2014) who states that socioeconomic status influences life experiences, it may be that students who come from different socioeconomic groups use different coping strategies. Although education is a factor in the tripod of determinants of socioeconomic status, data collected from this study cannot conclude that students in one socioeconomic status cope differently than students from another socioeconomic class. The impact that SES has on coping may warrant further research.

Finally, a factor that was not considered in this study, but which may lend itself to a better understanding of differences in students at different sized universities is the difference between students who live on campus, compared to students who are commuter students at various sized institution. This study did not collect data on students' housing situations. A question to use in future research could be, "do students who live on campus compared to students who live off campus use different types of coping?" Although these findings indicate that there are some differences in the ways in which students at these two universities cope with stress further research is needed to parse what factors may contribute to differences in coping at universities of different sizes, scope, and student demographics.

Relationships Between COPE Subscales

Data collected from this study did indicate many significant relationships between coping subscales. Concurring with Lazarus and Folkman (1984) who maintain that people tend to use

147

more than one coping strategy at once to cope with stress, this study found that students have a tendency towards using more than one coping strategy when coping with stress. Findings revealed strong positive correlations between Positive Reinterpretation and Growth and Planning, Positive Reinterpretation and Growth and Active Coping, Planning and Active Coping, Focus on and Venting Emotions and Use of Instrumental Social Support, Active Coping and Suppression of Competing Activities. This infers that students who actively dealing directly with the stressor have a tendency to use other coping strategies that are more proactive. Furthermore, when students focus on their feelings they tend to reach out others for social support that would aid them in dealing with their stress. There were also quite a few moderate positive relationships between coping subscales which were detailed in Chapter 4. While findings did not indicate any strong negative relationships between coping subscales, there were some negative correlations that were found to be significant, with the two highest being between Planning and Substance Use and Planning and Behavior Disengagement. It may be that when students use Planning, which is an active type of coping that deals directly with the stressor, they have less of a tendency to use dysfunctional types of coping such as Substance Use or Behavior Disengagement. In this regard, it may behoove administrators, counseling center directors, student affairs personnel, and instructors in first year experience-type courses to emphasize planning as a strategy; a tool to reduce student propensity towards dysfunction coping and enhance effective coping. Additionally, results in this study indicated that that Emotional Social Support and Focusing on and Venting Emotions were strongly correlated. Subsequently, college counseling center directors may consider offering support groups for students, which could augment their social support and provide a place to share their feelings about their stress. Further

148

implications for administrators and college counseling center directors are discussed at the end of this chapter.

Interactions Between Variables on COPE Subscales

An examination of the interaction between variables on COPE subscales revealed that there was no interaction between institution and race/ethnicity, generation status and race/ethnicity, gender and race/ethnicity or institution and generation status. However, there was found to be an interaction between generation status and gender on coping by Planning. Both continuing generation men and women have a greater tendency to use Planning than first generation men and women. Furthermore, the greatest difference in the use of Planning to cope with stress was between first generation men and women. First generation women use Planning more than first generation men. Signficant interactions were also found between gender and institution. Women at Institution A have a great tendency than women at Institution B to use Mental Disengagement, Use of Instrumental Social Support, Restraint Coping, and the Use of Emotional Social Support. However, interestingly, on these same four COPE subscales men at Institution B had a greater tendency to utilize these coping strategies than men at Institution. Further research is needed to understand these differences in coping with stress between men and women at different institutions and between men and women of different generation statuses.

Perceptions of Stress

In his cognitive theory of stress, Lazarus (1976) posits that one's perception of events influences how they experience that situation and subsequently, how they cope with the event. In considering factors that could impact differences in perception of stress, generation status, racial/ethnic group, gender and institution were tested. Similar to results on coping with stress, results from part of the study revealed more similarities than differences among students in their

general perception of stress in their lives. It is important to note that on the Perceived Stress

Scale, the highest response rate was to, "how often do you feel nervous and 'stressed' ", with a

very high percentage of students reporting sometimes, fairly often, and very often. This indicates

that students have a tendency to perceive that they are stressed and nervous. A factor that could

effect student's perception of stress was the timing of student participation in this study. While

this information was not analyzed, students participated in this study the last two months of their

spring semester. Subsequently students who took the test closer to the end of the semester may

report higher perceived stress. Future research could compare stress among students at varying

times in the academic year.

<center>**Research Question #2**</center>

*RQ2 Is there a difference among students in how they perceive stress by generation

status, race/ethnicity, gender, or institution?*.

Perceived Stress and Generation Status

An abundance of research has focused on factors than increase stress among first

generation students compared to their continuing generation peers (Murphy & Hicks, 2006;

McMurray & Sorrells, 2009; Pascarella et al., 2004; Terizini et al., 1996). However, contrary to

these previous studies, this study found there to be no significant differences in perceived stress

between these two student populations. Concurring with Luthar and Latendresse (2005) who

suggest that children of highly educated parents have been considered low risk for having

problems, and that these students may face pressures that are not acknowledged, this study also

indicates that there may be factors which may be overlooked, but which may significantly impact

the level of stress of continuing generation students. There has been a lack of focus on factors

that might exacerbate the level of stress for continuing generation students. This is not to

<center>150</center>

minimize the factors that increase the level of stress for first generation or racial/ethnic minorities, but to acknowledge that although the issues may vary for students of different demographics all students have factors with which they must contend – factors that may increase their level of stress. There are several possible explanations for the similarity in perceived levels of stress between first generation and continuing generation students.

Transitional Issues

Although there are different factors with which first generation and continuing generation students must contend, there are also factors that may increase the level of stress among college students regardless of generation status. The majority of participants in this study were freshmen and subsequently, as first year college students they might face transitional issues which could increase their level of stress. This may include transitioning from the security of living at home with fewer responsibilities to the independence of managing their own time. Similarly, first generation and continuing generation students may be faced with adjusting to a change in their social and emotional support system, which may induce stress. There may also be increased stress for both groups of students due roommate conflicts, academic demands, as well as financial concerns. Furthermore, while first generation students do have factors that may exacerbate their level of stress, I contend that although continuing generation students may not have to contend with some of the same factors that are stress producing, they have factors which also may increase the stress they experience while in college.

Financial Issues

First generation students and racial/ethnic minority students often come from families of lower socioeconomic status and may have financial concerns that increase their level of stress. With the Recession of 2008, the rising cost of a college education, lower financial aid

availability, as well as the amount of loans they maybe incurring as they pursue higher education, continuing generation students may also have to cope with financial stress, stress which they previously might not have had to contend. However, as first generation students are less likely to have been insulated from life's stresses prior to arriving on campus, it may be the case that their greater exposure to stress pre-college allows them to contextualize stress while in college. Furthermore, their experiences prior to college may make them more resilient to the effects of stress. Therefore, while challenged, it might not register to these students as being as stressful as other comparative situations. For some, it may be as simple as being able to label what problems are "first world".

Both first generation and continuing generation students may experience concern about current unemployment rates among college graduates, as well as concern with whether or not the education they receive is preparing them adequately for future employment. This concurs with Eisner (2010) who posits, that optimism of college graduates has more recently been replaced with a skepticism about their future. This skepticism is likely to contribute to the stress that many college students feel regardless of to which demographic group they belong.

Ironically, although computer technology has become ubiquitous for college students, it may also contribute to the stress in their lives. With rapidly changing components and systems, students may experience stress trying to keep up with these changes. Furthermore, students today have witnessed worldwide disasters and crises live through mass technology in a way past generations have not experienced (Bland et al., 2012). Data from this study concurs with Bland and colleagues (2012) as they would further suggest, millennial students are "simultaneously overloaded and stressed out with the worries of the world, literally" (p. 541).

Parental Expectations

A source of stress which may increase the level of stress among continuing generation students- a stressor with which their first generation peers may not have to contend is related to expectations their college educated parents have of them. While the assumption has been that first generation students are at a disadvantage due to a lack of guidance by parents who have experienced college themselves, the fact that parents who have attended college may be more involved with their children than are parents who have not attended college may at times serve as a disadvantage to continuing generation students. Previous research indicates that todays' parents of college students are more involved in their child's educational experience than parents of past generations (Lum, 2006; Somers & Settle, 2010). Consequently at times this over involvement may be contributing to the increased level of stress in their child's life. Furthermore, continuing generation parents tend to have higher expectations of their children than first generation parents have of their children- expectations that may increase their child's stress. This may include the expectation that their college bound child be accepted into a prestigious college, the expectation that their college bound child pursue a particular major, expectations of high academic achievement, or pressure to participate in specific extracurricular activities. These expectations may not be congruent with the desire or ability of their child and therefore may heighten their stress level.

With the perception that college is necessary to compete in the global job market, students who may not be academically prepared or have the academic aptitude to succeed in higher education may feel pressure by their parents to pursue a college education, whether or not they have the motivation to do so. Weissbourd (2011) cautions that for some parents, "getting into a good college is more important than being a good person" (p. 23). In a study of pressures

153

that college students face, the number one pressure students reported was pressure to do well/ parent expectations (Welle & Graf, 2011). Although this study did not assess factors that induce stress among students, and first generation and continuing generation students may have to confront different factors which increase their level of stress, there was no difference in their perceived level of stress.

Perceived Stress and Racial/Ethnic Groups

Previous literature comparing stress among different racial/ethnic students has most often limited their comparison between Whites and Black/African Americans (Welle & Graf, 2011). However, this study compared perceived levels of stress among six racial/ethnic groups (White, Black/African American, Hispanic of any race, Asian, American Indian/Native Alaskan and students who self identified as being of two or more races. Results from this study concur with Cohen and Janicki-Diverts (2012) who assert that when adjustments are made for demographics variables, in times of economic challenges, the differences in the level of perceived stress among racial/ethnic groups is not significant.

Rightfully so, previous studies contend that racial/ethnic minority students have factors that increase their level of stress (Carter & Reynolds, 2011; Holland, 2010; Wei et al., 2010). However, the findings in this study indicate that perceived stress is not contingent on race/ethnicity. These findings are contrary to Norman (2008) who argues that Black/African Americans tend to experience greater stress than Whites and Wei et al. (2010), who state that minority students have greater stress than non-minority students. I would be remiss not to acknowledge that there are factors which increase the level of stress for racial/ethnic minority students- factors with which their non minority peers may not have to contend. However, just as there are different factors which first generation and continuing generation students may have to

154

contend, but which influence their level of stress similarly, different racial/ethnic students may also have varying stress stimuli. Yet, as this study indicates there is no difference in how they perceive the general level of stress in their lives. Wilson (2011) in *The Declining Influence of Race: Revisited and Revised*, posits that life experiences have more to do with economic class than with race. He adds that whereas past racial barriers were meant to control and restrict entire races of people, the newer economic barriers create hardships for the underclass. To reiterate, this is not to say that race does not matter, but perhaps there are other more significantly influential factors.

Findings from this study indicate that there are no differences in perception of one's general level of stress among various racial/ethnic groups. Arguably, stress is ubiquitous among all students in higher education. Furthermore, while perception of stress was independent of generation status or racial/ethnic membership, the factor that was found to significantly influence differences in perception of stress was gender.

Perceived Stress and Gender

Consistent with previous research (Bouchard & Shih, 2013; Cohen, & Janicki-Deverts, 2012; Welle & Graff, 2011), women reported higher levels of perceived stress in their lives than men reported. It may be that traditional gender stereotypes, which encourage women to be open about their feelings, while at the same time incite men to be stoic with their emotions, may influence men having less of a tendency to admit to feeling stressed. Furthermore, expressing high levels of stress may threaten one's masculinity.

The one item on Perception of Stress Scale where men and women were similar was in response to "How often did you feel you were unable to control the important things in your life"? In other words from this sample of students, both men and women equally expressed a

155

tendency to feel unable to control important things in their lives. This item on the PSS had one of the highest responses among the 10 items on the survey. Concurrent with Bland et al. (2009), this study indicates that today's college students are overloaded and worried about their lives. Furthermore, although this study was primarily conducted to understand coping and perception of stress among students of different generation status and different racial/ethnic groups, neither of these factors were found to able to predict perceived stress. The only factor that was found to predict stress was gender. We can predict that women are more likely than men to perceive higher stress in their life. With differences between genders on both perceived stress as well as coping with stress, college counseling center directors may consider reaching out to students through student organizations that are gender specific to offer support for coping with stress. Additionally, while gender socialization may influence men's resistance to talking about stress, the availability of men's support groups may encourage men to open up about their stress and cope using more effective coping strategies.

Perceived Stress and Institution

Difference in perception of stress was also compared between students at Institution A and Institution B. Results indicated that there was no significant difference in perception of stress between these students at both universities. Students from Institution A and Institution B have a tendency to perceive their level of stress similarly.

Although no significant differences were found between first generation and continuing generation students or between students from Institution A and Institution B, or among students of different racial/ethnic groups, the factor that was associated with differences in perceived stress was gender. Addition analyses used to determine if there were significant interactions

156

between generation status, racial/ethnic group, gender or institution indicated that there were no significant interactions between any of these variables on perceived stress.

Research Question #3

RQ3 Is there a relationship between perceived stress and the way students cope with stress?

To better understand how perceived stress and coping are related, a correlation analysis was conducted and found there to be significant relationships between students' perception of stress and how they cope with stress. Interestingly, the strongest positive correlation was on the subscale, Focus on and Venting of Emotions. Therefore, the higher a student's perceived stress the more likely they are to cope by expressing their emotions. This may be a result of how millennial students were raised, encouraged to express themselves and let their voice be heard. Students may also feel more comfortable expressing their emotions due to being in an academic environment that encourages critical thinking and self-expression. This is not to assume that students of all cultures are encouraged to voice their feelings, however in this study there was no difference found among students of different racial/ethnic groups on the Focusing on and Venting Emotions subscale. This coping strategy may also be reflective of social media, which provides students with various avenues of self-expression, allowing them to vent their emotions in ways other than face to face. For instance on Facebook, a popular social media outlet, when a person opens their Facebook page the first choice they have is to state their "Status". When you click on "Status" it asks, "What's on your mind?" People frequently respond to this question by saying how they feel. Another popular aspect of social media is the use of "Emoticons", which are icons that allow people to express how they are feeling at the moment, when "texting", "tweeting" or otherwise communicating on the internet. With ubiquitous internet connections

157

that have become essential to most college students' lives, social media outlets provide an ever-present platform for expressing emotions.

The highest significant negative correlation was between perceived stress and Positive Reinterpretation and Growth. The higher the stress the less likely students were to try to learn something from the experience or try to find something positive in the experience. In other words the more a student assesses their life as stressful, the less likely they are to try to grow from the experience. This may be because at a time of high stress students tend to be more likely to try to do something about the problem and are focused on a solution to the problem rather than focusing on seeing something good in the situation or how they can grow from the experience. However, later on a student may pause and look back and reflect on the situation, however, at a time of high stress a student may be more focused on bringing that stressor to a close.

Although these correlations do not predict stress or coping this study indicated that there is a relationship between perceived stress and coping. This is consistent with Lazarus' (1976) cognitive theory of stress, which posits that how one perceives their situation will influence how they cope with stress; this study found that students' perception of stress does influence how they cope with stress.

<div align="center">

Recommendations for Future Research

</div>

Data from this study indicated that students of all racial/ethic groups, generation statuses, genders, and institutions have more similarities than differences in the means by which they cope with stress. There are also more similarities than differences in their perception of the level of stress in their lives. Therefore the following suggestions for future research may further add to the body of knowledge on college students coping with stress:

1. An assessment of what causes students stress among continuing generation students. This could be conducted using either a qualitative or quantitative study. However, a mixed method approach might give a more comprehensive understanding of factors that contribute to higher levels of stress among continuing generation students.

2. Another area that warrants further research is how technology may influence students' perception of social support. With ubiquitous social connections available through cell phones and computers, an examination of the impact that social media has on students coping with stress could provide valuable insight to counseling center directors.

3. Future research could include a study on expectations college educated parents have of their children and how their expectations influence student's stress.

4. While this study was a comparison of students from a large university to a medium sized university, future research is suggested to try to understand factors at different sized universities and institutions with other Carnegie Classification variances that may enhance or hinder coping with stress.

5. Finally, a study analyzing the differences in perceived stress and coping by socioeconomic status could give a more comprehensive understanding of coping among college students.

Implications for Practitioners

Data from this present study has indicated that how students cope with stress is not contingent on generation status. Additionally data has indicated that there is very little difference in coping among students of different racial/ethnic groups. This insight, coupled with the knowledge of the negative impact that stress has on students' physical health, mental health, and

academic performance, has implications for both college administrators and counseling center directors as they assess the services they provide and take deliberate steps to develop programs and services to help students cope with stress.

1. The first recommendation I have for college administrators and counseling center directors is to assess the efforts they are making to reach out to students to help them cope with stress. This would include assessing how they are communicating with students to determine if their efforts are effective in connecting students to services that could help them cope with stress.

2. An effort should be made to evaluate present programs that institutions offer and customize programs not by racial/ethnic group, or by generation status, but by issues with which college students face. This could be broken down to types of stress students are coping with; i.e., family stress, work stress, academic performance stress, and financial stress. Efforts also should be made to reach out to students through gender specific student organizations.

3. Counseling center directors could reach out to parents and provide programs (perhaps at new student orientation) to help parents provide positive, proactive parental support.

4. Workshops that focus on stress could be provided for parents, students, and faculty.

5. Acknowledging the negative impact that stress has on academic performance, counseling center directors could work with college retention programs to help students cope with stress that may be contributing to their poor academic performance.

6. Colleges and universities could offer programs that give students support for their spirituality. This could be in the form of hiring a campus minister or increasing connections with local churches to reach out to students. Administrators could also encourage the establishment of para-church groups, which in this recession conscious environment would be a low cost option that could have a positive impact on students.

The information gleaned from this study could be used to inform college administrators and counseling center directors of data that indicates that while students may have different issues with which they must cope with while in college, some of which may be in part due to demographic factors, all students experience stress while in college and could benefit from having services and programs made available to help them effectively cope with stress.

While it has been suggested that intervention for counseling services may be more effective if tailored to certain demographics, results from this study indicate that it may be more effective to tailor counseling interventions to specific psychological constructs- such as stress. The knowledge that diverse students are not significantly different in their perception of the level of stress in their lives, and are more similar than different in the ways in which they cope with stress, speaks to the commonality of the human experience even among diverse groups of students. Stress is ubiquitous for college students; the issue is whether or not they have access to services and networks that would effectively help them navigate their way through their stress.

Limitations

The first limitation is the methodology related to the sample population. Since I was not able to procure a list of all students at each institution in order to employ random sampling, the sample came from undergraduate students enrolled in Introductory Psychology courses. As

161

stated in chapter three, students had several options from which to choose to fulfill their

Psychology research requirement. One of their options was to participate in this research study

with access through the Sona System. To be eligible to participate in this study, students had to

be enrolled in an introductory psychology course and they had to be at least 18 years old.

Subsequently, all introductory psychology students at both universities had an equal chance of

participating as long as they fulfilled the age requirement.

Another limitation addresses the generalizability of this study. Since the majority of

participants were freshmen, the results may not be indicative of all college students. Another

consideration is that the time of the semester when students took the survey could impact results.

Students who took the survey at the beginning of the semester may perceive stress differently

than students who took the survey at the end of the semester, closer to the time of exams, which

tends to induce stress for many students. This factor was not taken into consideration when

analyzing the data.

Furthermore, a concerted effort was made to use two institutions that would provide a

robust sample population. As shown in Table 2 in chapter 4 the number of racial/ethnic minority

students were representative relative to the fall enrollment at each institution. Furthermore, the

total population showed equal representation to the racial/ethnic composition within the

university system in which these institutions reside. Therefore, it is believed that the congruence

of the sample population to the university system lends itself to generalizability among these

student contingents within the system. However, it must be acknowledged that there is the

possibility that self-selection bias may occur.

Additionally, since this study used a panethnic approach to grouping students,

generalizations may not be able to be made of all students within each racial/ethnic group. For

instance, we cannot assume that all Hispanic students perceive stress or cope with stress in the same manner. A final limitation to this study is that results may not be generalizable to students enrolled in community colleges.

Summary and Conclusion

The purpose of this study was to determine if there are differences in how various student populations cope with stress and perceive stress in their lives. Data inferred that among students at these two southern universities there were few significant differences in coping among racial/ethnic students, and no significant differences in coping between first generation and continuing generation students. Furthermore, data concluded that perception of stress is not contingent on race/ethnicity or generation status. However, gender was a factor that did impact both coping and perceived stress. The results of this study indicated that stress is ubiquitous for college students and that students are more similar than they are different in how they cope with stress and perceive stress. Rather than, as was suggested in earlier chapters, tailoring different programs to help different student groups cope with stress, the focus may need to be reaching out to all students to help them cope with stress in an effort to help them reduce stress, and prevent an escalation of their current level of stress.

While this study adds to the body of knowledge on coping with stress and perception of stress between first generation and continuing generation students and among students of different racial/ethnic groups, future studies are needed to investigate the sources of stress among these students as well as to assess how institutions of higher education are reaching out to help students cope with stress. If colleges and universities provide services that help students cope with stress, students' stress may be reduced and subsequently their physical health, mental health and academic performance will be enhanced.

REFERENCES

Adkins, D. E., Wang, V., Dupre, M. E., Van den Oord, E., & Elder, G. H. (2008). Structure and stress: Trajectories of depressive symptoms across adolescence and young adulthood. *Social Forces: A Scientific Medium of Social Study and Interpretation*, *88*(1), 31-60.

American College Health Association. (2013). National college health assessment: Reference group executive summary report. Retrieved from http://www.acha-ncha.org/reports_ACHA-NCHAII.html

Anderson, E. L. (2003). Changing U.S. demographics and American higher education. *New Directions for Higher Education, 2003*(121), 3-12.

Aranda, E., & Rebollo-Gil, G. (2004). Ethnoracism and the "sandwiched" minorities. *American Behavioral Scientist*, *47*(7), 910-927.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469–480. doi:10.1037//0003-066X.55.5.469

Aspelmeier, J., Love, M., McGill, L., Elliott, A., & Pierce, T. (2012). Self-esteem, locus of control, college adjustment, and GPA among first-and continuing-generation students: A moderator model of generational status. *Research in Higher Education*, *53*(7), 755-781. doi:10.1007/s11162011-9252-1

Balhara, Y. P. (2011). Culture bound syndrome: has it found it right niche? *Indian Journal of Psychological Medicine*, *33*(2), 210-215. doi:10.4013/0253-7176.92055

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological review*, *84*(2), 191–215. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/847061

Bandura, A. (1997). *Self-efficacy: The exercise of control*. NY: Worth Publisher.

Banks, K. H., & Kohn-Wood, L. P. (2002). Gender, ethnicity and depression: intersectionality in

    mental health research with African American women. Scholarship/paper 6. Retrieved

    from http://digitalcommons.iwu.edu/pscych_scholarship/6

Barge, S., & Gehlbach, H. (2012). Using the theory of satisficing to evaluate the quality of

    survey data. *Research in Higher Education*, *53*(2), 182-200.

    doi:10.1007/s11162-011-9251-2

Barry, L. M., Hudley, C., Kelly, M., & Cho, S. (2009). Differences in self-reported disclosure of

    college experiences by first-generation college student status. *Adolescence, 44*(173), 55-

    68.

Beck, A. T., Steer, R. A., & Brown, G. K. (2000). Beck Depression Inventory-FastScreen for

    medical patients. *Mental Measurements Yearbook with Tests in Print*.

Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism.

    Journal of Consulting Psychology, *42*(6), 861-865.

Benton, S. A., Robertson, J.M., Tseng, W., Newton, F.B., & Benton, S. (2003). Change in

    counseling center client problems across 13 years. *Professional Psychology Research and*

    *Pract*ice, *34*(1), 66-72. doi: 10.1037/0735-7028.34.1.66

Berg-Cross, L., & Green, R. (2010). The impact of the recession on college students. *Journal of*

    College Student Psychotherapy, *24*, 2-16.

Berwick, D. M., Murphy, J. M., Goldman, P. A., Ware, J. E., Barsky, A. J., & Weinstein, M. C.

    (1991). Performance of a five-item mental health screening test. *Medical Care*, *29*(2),

    169-176. doi: 10.1097/00005650-199102000-00008

Billings A. G., & Moos, R. H. (1981). The role of coping responses and social resources in

    attenuating the stress of life events. *Journal of Behavioral Medicine, 4*, 139-157.

Billings, A. G., & Moos, R. H. (1984). Coping, stress, and social resources among adults with
    unipolar depression. *Journal of Personality and Social Psychology, 46*(4), 877-891.

Bishop, J. B. (2006). College and university counseling centers: questions in search of answers.
    Journal of College Counseling, 9(1), 6-19.

Bland, H. W., Melton, B. F., Welle, P., & Bigham, L. (2012). Stress tolerance: New challenges
    for millennial college students. *College Student Journal*, *46*(2), 362-375.

Bouchard, L. C., & Shih, J. H. (2013). Gender differences in stress generation: Examination of
    interpersonal predictors. *Journal of Social & Clinical Psychology*, *32*(4), 424-445.
    doi: 10.1521/jscp.2013.32.4.424

Broido, E. M. (2004). Understanding diversity in millennial students. *New Directions for Student
    Services,* (106), 73-85.

Brougham, R. R., Zail, C. M., Mendoza, C. M., & Miller, J. R. (2009). Stress, sex differences,
    and coping strategies among college students. *Current Psychology*, *28,* 85-97.

Bruininks, R. H., Keeney, B., & Thorp, J. (2010). Transforming America's universities to
    compete in the "new normal". *Innovative Higher Education*, *35*(2), 113-125.
    doi: 10.1007/s10755-009-9135

Burris, J, Brechting, E., & Salsman, J. (2009). Factors associated with the psychological well-
    being and distress of university students. *Journal of American College Health, 57*(5),
    536-543.

Butts, J. (1979). Economic stress and mental health. *National Medical Association, 71*(4), 375–
    379.

Carnegie Classifications. (2014). Retrieved from http://classifications.carnegiefoundation.org

Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist*, *35*(1), 13-105. doi: 10.1177/0011000006292033

Carter, R., & Reynolds, A. (2011). Race-related stress, racial identity status attitudes, and emotional reactions of Black Americans. *Cultural Diversity and Ethnic Minority Psychology*, *17*(2), 156-162.

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine, 4*, 92-100.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*, 267-283.

Chambers, C. R., Walpole, M. B., & Coaxum III, J. (2012). Academic achievement of African American fraternities and sororities. In T. Brown, G. Parks, & C. Phillips (Eds.), *African American fraternities and sororities*. Lexington Kentucky: University Press of Kentucky.

Chemers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first year college student performance and adjustment. *Journal of Educational Psychology*, *93*(1), 55–64. doi: 10.1037//0022-0663.93.1.55

Chen, X., & Carroll, C. D. (2005). First-generation students in postsecondary education: A look at their college transcripts. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Chickering, A., & Risser, L. (1993). *Education and identity*. San Francisco, CA: Jossey Bass Publishers.

Ciarrochi, J., Deane, F. P., & Anderson, S. (2002). Emotional intelligence moderates the

    relationship between stress and mental health. *Personality and Individual Differences,*

    32(2), 197–209. doi: 10.1016/S0191-8869(01)00012-5

Clark, M. R. (2005). Negotiating the freshman year: challenges and strategies among first-year

    college students. *Journal of College Student Development*, *46*(3), 296–316.

    doi: 10.1353/csd.2005.0022

Cohen, S., & Janicki-Deverts, D. (2012). Who's stressed? Distributions of psychological stress in

    the United States in probability samples from 1983, 2006, and 2009. *Journal of Applied*

    Social Psychology, 42(6), 1320-1334.

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United

    States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health* (pp. 31-67).

    Thousand Oaks, CA: Sage Publications, Inc.

Cokley, K., Hall-Clark, B., & Hicks, D. (2011). Ethnic minority-majority status and mental

    health: The mediating role of perceived discrimination. *Journal of Mental Health*

    Counseling, *33*(3), 243-263.

Cole, E. R. (2009). Intersectionality and research in Psychology. *American Psychologist*, *64*(3),

    170-180. doi: 10.1037/a0014564

Compton-Lily, C. (2009). Breaking the silence: recognizing the social and cultural resources

    students bring to the classroom. *International Reading Association.* Newark, DE.

Cushman, K. (2007). Facing the culture shock of college. *Educational Leadership*, *64*(7), 44-47.

Debard, R. (2004). Millennials coming to college. *New Directions for Student Services*, (106),

    33–45. doi: 10.1002/ss.123

Dolbier, C. L., Smith, S. E., & Steinhardt, M. A. (2007). Relationships of protective factors to

    stress and symptoms of illness. *American Journal of Health Behavior*, *31*(4), 423-433.

    doi: 10.5993/AJHB.31.4.9

 Downes-Le Guin, T., Baker, R., Mechling, J., & Ruylea, E. (2012). Myths and realities of

    respondent engagement in online surveys. *International Journal of Market Research*,

    54(5), 1-21.

Doyle, W. R., & Delaney, J. A. (2009). Higher education funding: The new normal. *Change,* 60-

    62*.*

Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms,

    stress, and coping. *Journal of Clinical Psychology*, *62*(10), 1231-1244.

    doi: 10.1002/jclp.20295

Eisner, S. (2010). Employment: College grad career building in a changing and electronic age.

    American Journal of Business Education, *3*(7), 25-40.

Eklund, R. C., Grove, J., & Heard, N. (1998). The measurement of slump-related coping:

    Factorial validity of the COPE and modified-COPE inventories. *Journal of Sport &*

    Exercise Psychology, *20*(2), 157-175.

Erikson, E. (1950/1963). *Childhood and Society,* (2nd ed.). Toronto: George J. McLeod Limited.

Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. P., & Reen, K.A. (2010). *Student*

    development in college: Theory, research and practice. San Francisco, CA: Josey Bass.

Fidan, T., Ceyhun, H., & Kirpinar, I. (2011). Coping strategies and family functionality in youths

    with or without suicide attempts. *Archives of Neuropsychiatry/Noropsikiatri Arsivi*,

    48(3), 195-200. doi: 10.4274/Npa.Y5785

Field, A. (2009). *Discovering statistics using SPSS.* Thousand Oaks, CA: Sage Publications.

Folkman, S., & Lazarus, R. (1988). Ways of coping questionnaire. *Mental Measurements Yearbook with Tests in Print.* Yearbook 11. Menlo Park, CA.

Folkman, S., & Moskoswitz, J. T. (2004). Coping: Pitfalls and promises. *Annual Review of Psychology*, *54*, 745-747.

Forbus, P. R., Newbold, J. J., & Mehta, S. (2011). First-generation university students: Motivation, academic success, and satisfaction with the university experience. *International Journal of Education Research, 6*(2), 34-55.

Gallagher, R. P., & American College Counseling Association. (2012). *National survey of college counseling.* Pittsburg, PA: The International Association of Counseling Services.

Giancola, J. K., Grawitch, M. J., & Borchert, D. (2009). Dealing with the stress of college: A model for adult students. *Adult Education Quarterly*, *59*(3), 246–263. doi: 10.1177/0741713609331479

Giancola, J. K., Munz, D. C., & Trares, S. (2008). First- versus continuing-generation adult students on college perceptions: are differences actually because of demographic variance? *Adult Education Quarterly*, *58*(3), 214–228. doi: 10.1177/0741713608314088

Giancola, P. R., Levinson, C. A., Corman, M. D., Godlaski, A. J., Morris, D. H., Phillips, J. P., & Holt, J. D. (2009). Men and women, alcohol and aggression. *Experimental and Clinical Psychopharmacology*, *17*(3), 154-164. doi: 10.1037/a0016385

Gloria, A. M., Castellanos, J., Scull, N. C., & Villegas, F. J. (2009). Psychological coping and well-being of male Latino undergraduates: "Sobreviviendo la Universidad". *Hispanic Journal of Behavioral Sciences, 31*(3), 317-339.

Grabu, L. (2011). Academic motivation and student development during the transition to college. *Kentucky Journal of Excellence in College Teaching and Learning, 7*(1), 7-20.

Greenlaw, C., & Brown-Welty, S. (2009). A comparison of web-based and paper-based survey

  methods: Testing assumptions of survey mode and response costs.

  Evaluation Review, 33(5), 464-480. Retrieved from http://erx.sagepub.com

Grosfoguel, R. (2004). Race and ethnicity? Identities within global coloniality. *Ethnicities,*

  4(315), 315-336.

Guo, Y., Wang, S., Johnson, V., & Diaz, M. (2011). College students' stress under current

  economic downturn. *College Student Journal*, *45*(3), 536-544.

Guthman, J., Locin, L., & Kontas, D. (2010, August). *College students exhibiting more severe*

  mental illness. Presented at the 118th Annual Convention of the American Psychological

  Association. San Diego, CA.

Hale, J., Greenberg, J. S., & Ramsey, S. A. (1990). Assessment of college-student stress and

  stress-management needs: A pilot study. In J. H. Humphrey (Ed.), *Human stress: Current*

  selected research, *4,* 77-88. Brooklyn, NY: AMS Press.

Halpern, D. (2005). *Social capital.* Malden, MA: Polity Press.

Hahs-Vaughn, D. (2004). The impact of parents' education level on college students: An analysis

  using the beginning postsecondary students longitudinal study 1990-92/94. *Journal of*

  College Student Development, *45*(5), 483–500. doi: 10.1353/csd.2004.0057

Hayes, J. A., Chun-Kennedy, C., Edens, A., & Locke, B. D. (2011). Do minority students face

  double jeopardy? Testing minority stress theory. *Journey of College Counseling, 14*(2),

  117-126.

Hayes, J. A., Locke, B. D., & Castonguay, L. G. (2011). The center for collegiate mental health:

  Practice and research working together. *Journal of College Counseling*, *14*, 101-104.

Helms, J. E. (1995). *The people of color (POC) racial identity attitude scale*. Unpublished

    manuscript, University of Maryland, College Park.

Hicks, T., & Heastie, S. (2008). High school to college transition: A profile of the stressor,

    physical and psychological health issues that affect the first-year-on campus college

    student. *Journal of Cultural Diversity*, *15*(3), 143-147.

Hick, T., & Miller, E. (2006). College life styles, life stressors and health status. *Journal of

    College Admission*, 22-28.

Higher Education Research Institute. (2013). *Your first year of college survey.* University of

    California, LA.

Hill-Rice, V. (2012). Theories of stress and its relationship to health. In V. Hill-Rice (Ed),

    Handbook of stress, coping and health: Implications for nursing research, theory and

    practice, (pp. 43-70). Thousand Oaks, CA: Sage Publications.

Holahan, C. J., Moos, R. H., Holahan, C. K., Brennan, P. L., & Schutte, K. K. (2005). Stress

    generation, avoidance coping, and depressive symptoms: a 10-year model. *Journal of*

    Consulting and Clinical Psychology, *73*(4), 658–66. doi: 10.1037/0022006X.73.4.658

Holland, N. E. (2010). Postsecondary education preparation of traditionally underrepresented

    college students: A social capital perspective. *Journal of Diversity in Higher Education*,

    3(2), 111–125. doi: 10.1037/a0019249

Holley, K., & Harris, M. (2010). Selecting students, selecting priorities: how universities manage

    enrollment during times of economic crises. *Journal of College Admission*, (207), 16-21.

Holmes, T., & Rahe, R. (1967). The social readjustment rating scale. *Journal of Psychosomatic*

    Research, 11(2), 213-218. doi: 10.1016/0022-3999(67)90010-4

Hudek-Knezevic, J., Kardum, I., & Vukmirovic, Z. (1999). The structure of coping styles: A

comparative study of Croatian sample. *European Journal of Personality*, *13*(2), 149-161.

Huynh, V. W., & Fuligni, A. J. (2012). Perceived ethnic stigma across the transition to college.

Journal of Youth and Adolescence, *41*(7), 817–30. doi: 10.1007/s10964-011-9731

Hystad, S. W., Eid, J., Laberg, J. C., Johnsen, B. H., & Bartone, P. T. (2009). Academic stress

and health: Exploring the moderating role of personality hardiness. *Scandinavian Journal

of Educational Research, 53*(5), 421-429.

Ishitani, T. T. (2003). A longitudinal approach to assessing attrition behavior among first

generation students: Time-varying effects of pre-college characteristics. *Research in

Higher Education, 44*(4), 433-449.

Jason, J. A., Fennell, P. A., & Taylor, R.R. (2003). *Handbook of Chronic Fatigue Syndrome.*

Hoboken, NJ: John Wiley & Sons.

Kanner, A., Coyne, J., Schaefer, C., & Lazarus, R. (1981). Comparison of two modes of stress

management. *Journal of Behavioral Medicine, 4*(1), 1-39.

Kieffer, K. M., & MacDonald, G. (2011). Exploring factors that affect score reliability and

variability: In the ways of coping questionnaire reliability coefficients: A meta-analytic

reliability generalization study. *Journal of Individual Differences*, *32*(1), 26-38.

doi:10.1027/1614-0001/a000031

Kozulin, A. (2003). Psychological tools and mediated learning. In A. Kozulin, B. Gindis, S.

Vladimir, & S. Miller (Eds.), *Vygotsky's Educational Theory in Cultural Context* (pp. 15-

38). NY: Cambridge University Press.

Kress, T. M. (2009). In the shadow of whiteness: (Re)exploring connections between history, enacted culture, and identity in a digital divide initiative. *Cultural Studies of Science Education*, *4*(1), 41-49. doi: 10.1007/s11422-008-9137-6

Krypel, M. N., & Henderson-King, D. (2010). Stress, coping styles, and optimism: Are they related to meaning of education in students' lives. *Social Psychology in Education, 13,* 409-424.

Lazarus, R. S, (1976). *Patterns of adjustment* (3rd ed.). New York, NY: McGraw-Hill.

Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York, NY: Spring Publishing Company.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer Publishing Co.

Lazarus, R. S., & Folkman, S. (1986). Reply to Cohen. *American Psychologist*, *41*(6), 718-719. doi: 10.1037/0003-066X.41.6.718

Lee, H. S., & Cohn, L. D. (2010). Assessing coping strategies by analyzing expressive writing samples. *Stress and Health: Journal of the International Society for the Investigation of Stress*, *26*(3), 250-260. doi: 10.1002/smi.1293

Lee, J. (2012). Ethnic identity as a predictor of locus of control and academic self efficacy. *Sentience: The University of Minneapolis Undergraduate Journal of Psychology,* 7, 17-21.

Lefcourt, H. M. (1984). *Research with the Locus of Control Construct Volume Three: Extensions and Limitations.* Orlando, FL: Academic Press.

Lenz, S. (2010). Exploring college students' perception of the effectiveness of their coping styles for dealing with stress. *LOGOS: A Journal of Undergraduate Research*, 368-382.

Levine, A. (2001). The remaking of the American university. *Innovative Higher Education, 25*(4), 253-267.

Lindsey, R., Reed, S., Lyons, R., Hendricks, D., Mead, A., & Butler, K. L. (2011). Sources of stress among gender and classification for African American college students. *College Student Journal, 45*(4), 749-757.

Liverant, G. I., Hofmann, S. G., & Litz, B. T. (2004). Coping and anxiety in college students after the September 11[sup]th[/sup] terrorist attacks. *Anxiety, Stress & Coping: An International Journal*, *17*(2), 127-139. doi: 10.1080/0003379042000221412

Lorant, V., Croux, S., Weich, S., Deleige, D., Mackenback, J., & Ansseau, M. (2007). Depression and socioeconomic risk factors: 7-year longitudinal population study. *British Journal of Psychiatry, 190,* 293-298. doi: 10.1192/bjp.bp.105.020040

Lucero-Miller, D., & Newman, J. L. (1999). Predicting acculturation using career, family, and demographic variables in a sample of Mexican American students. *Journal of Multicultural Counseling & Development, 27*(2), 75.

Lum, L. (2006). Handling helicopter parents. *Diverse: Issues in Higher Education*, *23*(20), 40-42.

Luthar, S. S., & Latendresse, S. J. (2005). Children of the affluent. *Current Directions in Psychological Science (Wiley-Blackwell)*, *14*(1), 49-53. doi: 10.1111/j.0963-7214.2005.00333.x

Mahoney, J. L. (2010). Thoughts in troubled times. *Journal of College Admission*, (209), 4-6.

Meadows, S. O., Brown, J. S., & Elder, G. H. (2006). Depressive symptoms, stress, and support: Gendered trajectories from adolescence to young adulthood. *Journal of Youth and Adolescence*, *35*(1), 89–99. doi: 10.1007/s10964-005-9021

Mehta, S., Newbold, J., & O'Rourke, M. (2011). Why do first-generation students fail? *College Student Journal, 45*(1), 20-35.

Miller, C. T., & Kaiser, C. R. (2001). A theoretical perspective on coping with stigma. *Journal of Social Issues*, *57*(1), 73-92.

Montgomery, D., Miville, M. L., Winterowd, C., Jeffries, B., & Baysden, M. F. (2000). American Indian college students: An exploration into resiliency factors revealed through personal stories. *Cultural Diversity and Ethnic Minority Psychology*, *6*(4), 387-398. doi: 10.1037/1099-9809.6.4.387

Moss, P. A., Pullin, D., Gee, J. P., & Haertel, E. H. (2005). The idea of testing: Psychometric and sociocultural perspectives. *Measurement: Interdisciplinary Research & Perspective*, *3*(2), 63–83. doi: 10.1207/s15366359

Mostafei, A. (2012). The relationship between stress and mental health in university students. *Annals of Biological Research, 3*(7), 3468-3473.

Mudge, S., & Higgins, D. J. (2011). College access programming: Removing higher education barriers for underrepresented student populations. *International Journal of Learning*, *17*(11), 123-139.

Murphy, C. G., & Hicks, T. (2006). Characteristics among first-generation and non-first-generation college students. *College Quarterly*, *9*(2), 1–20.

Myers, H. F. (2009). Ethnicity and socio-economic stress-related stresses in context: An integrative review and conceptual model. *Journal of Behavioral Medicine*, *32*(1), 9-19.

McMurray, A. J., & Sorrells, D. (2009). Bridging the gap: Reaching first-generation students in the classroom. *Journal of Instructional Psychology*, *36*(3), 210-214.

National Center for Educational Statistics. (2013). *The condition of education: Undergraduate enrollment.* Retrieved from http://nces.ed.gov/fastfacts/display

Nekby, L., Rodin, M., & Ozcan, G. (2009). Acculturation identity and higher education: Is there a trade-off between ethnic identity and education? *International Migration Review*, *43*(4), 938–973. doi: 10.1111/j. 17477379.2009.00790.x

Norizan, A. A., & Shamsuddin, K. K. (2010). Predictors of parenting stress among Malaysian mothers of children with Down syndrome. *Journal of Intellectual Disability Research*, *54*(11), 992-1003. doi: 10.1111/j.1365-2788.2010.01324.x

Norman, M. V. (2008). Coping strategies: A case study of an African-American male. *Annals of the American Psychotherapy Association, 11*(3), 15-19.

Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education*, *33*(3), 301- 314. doi: 10.1080/02602930701293231

Okamoto, D. G. (2003). Toward a theory of panethnicity: Explaining Asian American collective action. *American Sociological Review*, *68*(6), 811-842.

Outten, H., Schmitt, M. T., Garcia, D. M., & Branscombe, N. R. (2009). Coping options: Missing links between minority group identification and psychological well-being. *Applied Psychology: An International Review*, *58*(1), 146-170. doi: 10.1111/j.1464-0597.2008.00386.x

Palmer, A., & Rodger, S. (2009). Mindfulness, stress and coping among university students. *Canadian Journal of Counseling, 43*(3), 198-212.

Pamental, M. (2010). A trans-actional approach to moral development. *Ethics and Education*, *5*(1), 15–26.

Parham, T. A. (n.d.). Cycles of psychological nigrescence. *The Counseling Psychologist, 17*, 187-226. doi: 10.1080

Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First generation college students: Additional evidence on college experiences and outcomes. *Journal of Higher Education, 75*(3), 249.

Pedersen, D. (2012). Stress carry-over and college student health outcomes. *College Student Journal, 46*(3), 620.

Penuel, W. R., & Wertsch, J. V. (1995). Vygotsky and identity formation: A sociocultural approach. *Educational Psychologist*, *30*(2), 83-92.

Phinney, J. S., & Haas, K. (2003). The process of coping among ethnic minority first-generation college freshmen: A narrative approach. *Journal of Social Psychology*, *143*(6), 707-726.

Piaget, J. (1964). Cognitive development in children: Piaget. *Journal of Research in Science Teaching*, *2*(3), 176-186.

Pieterse, A. L., & Carter, R. T. (2007). An examination of the relationship between general life stress, racism-related stress, and psychological health among Black men. *Journal of Counseling Psychology*, *54*(1), 101-109. doi: 10.1037/0022-0167.54.1.101

Prescott, H. M. (2008). College mental health since the early twentieth century. *Harvard Review*.

Pritchard, M. E., Wilson, G. S., & Yamnitz, B. (2007). What predicts adjustment among college students? A longitudinal panel study. *Journal of American College Health, 56*(1), 15–21. doi: 10.3200/JACH.56.1.15-22

Radloff, L.S. (1977). The CES-D scales: A self report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385-401.

Rahe, R. H., Veach, T. L., Tolles, R. L., & Murakami, K. (2000). The stress and coping

inventory: An educational and research instrument. *Stress Medicine*, *16*(4), 199-208.

doi: 10.1002/1099-1700(200007)16:4<199::AID-SMI848>3.0.CO;2-D

Ramos-Sanchez, L., & Nichols, L. (2007). Self-efficacy of first-generation and non-first-

generation college students: The relationship with academic performance and college

adjustment. *Journal of College Counseling, 10*, 6-18.

Reason, R. D. (2009). Student variables that predict retention: Recent research and new

developments. *National Association of Student Personnel Administrators Journal, 46*(3),

482-501.

Renk, K., & Smith, T. (2007). Predictors of academic-related stress in college students: An

examination of coping, social support, parenting, and anxiety. *Journal of Student Affairs

Research and Practice*, *44*(3), 803–829. doi: 10.2202/1949-6605.1829

Reynolds, W. M. (1988). *Suicidal Ideation Questionnaire: Professional Manual*. Odessa, FL:

Psychological Assessment Resources.

Roberti, J. W., Harrington, L. N., & Storch, E. A. (2006). Further psychometric support for the

10-item version of the Perceived Stress Scale. *Journal of College Counseling*, *9*(2), 135-

147.

Rogoff, B. (2003). *The cultural nature of human development*. New York, NY: Oxford

University Press.

Romero, A. J., Carvajal, S. C., Valle, F., & Orduña, M. (2007). Adolescent bicultural stress and

its impact on mental well-being among Latinos, Asian Americans, and European

Americans. *Journal of Community Psychology, 35*(4), 519-534.

Roth, D. L., Wiebe, D. J., Fillingim, R. B., & Shay, K. A. (1989). Life events, fitness, hardiness, and health: A simultaneous analysis of proposed stress-resistance effects. *Journal of Personality and Social Psychology, 57*(1), 136-142. doi: 10.1037/0022-3514.57.1.136

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, *80*(1), 1-28. doi: 10.1037/h0092976

Sadeh, A., Keinan, G., & Daon, K. (2004). Effects of stress on sleep: The moderating role of coping style. *Health Psychology*, *23*(5), 542-545. doi: 10.1037/0278-6133.23.5.542

Sarafino, E. P., & Ewing, M. (1999). The hassles assessment scale for students in college: Measuring the frequency and unpleasantness of and dwelling on stressful events. *Journal of American College Health*, *48*(2), 1-23.

Sarason, I. G., Johnson, J. H., & Siegel, J. M. (1978). Assessing the impact of life changes: Development of the life experiences survey. *Journal of Consulting and Clinical Psychology, 46*(5), 932-946.

Schapp, P., Buys, M. A., & Olckers, C. (2003). The construct validity of Scheper's locus of control inventory for Black and White tertiary students. *Journal of Industrial Psychology, 29*(1), 32-43.

Scully, J. A., Tosi, H., & Banning, K. (2000). Life event checklists: Revisiting the social readjustment rating scale after 30 years. *Educational and Psychological Measurement, 60*(6), 864-876. doi: 10.1177/00131640021970952

Sieben, L. (2011). Counseling directors say more students have severe psychological problems. *Chronicle of Higher Education*, *57*(31), A35.

Seligman, M. E. P. (1975). *Helplessness: On depression, development, and death.* San Francisco: W. H. Freeman.

Sellers, R. M., Rowley, S. A. J., Chavous, T. M., Shelton, J. N., & Smith, A. A. (1997). Multidimensional inventory of Black identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology, 73*(4), 805-815.

Selye, H. (1956). *The stress of life*. New York, NY: McGraw-Hill.

Settersten, R. A., & Ray, B. (2010). What's going on with young people today? The long and twisting path to adulthood. *The Future of Children/Center for the Future of Children, the David and Lucile Packard Foundation*, *20*(1), 19–41. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/20364620

Smart, J. F., & Smart, D. W. (1995). Acculturative stress: The experience of the Hispanic immigrant. *The Counseling Psychologist*, *23*(1), 25–42. doi: 10.1177/0011000095231003

Smith, J., Stern, K., & Shatrova, Z. (2008). Factors inhibiting Hispanic parents' school involvement. *Rural Educator, 13,* 8-14.

Soderstrom M., Dolbier, C., Leiferman, J., & Steinhardt, M. (2000). The relationship of hardiness, coping strategies, and perceived stress to symptoms of illness. *Journal of Behavioral Medicine, 23*(3), 311-328.

Soet, J., & Sevig, T. (2006). Mental health issues facing a diverse sample of college students: Results from the college student mental health survey. *NASPA Journal*, *43*(3), 410-431.

Somers, P., & Settle, J. (2010). The helicopter parent. *College & University*, *86*(2), 2-9.

Sona System. (2013). Retrieved from http://www.sona-systems.com

SPSS version 20. (2013) (Computer Software). IBM Corporation. Armonk, New York.

Stanton-Salazar, R. (1997). A social capital framework for understanding the socialization of

   racial minority children and youths. *Harvard Educational Review*, 1-41.

Stephens, N. M., Fryberg, S. A., Markus, H., Johnson, C. S., & Covarrubias, R. (2012). Unseen

   disadvantage: How American universities' focus on independence undermines the

   academic performance of first-generation college students. *Journal of Personality and*

   Social Psychology, *102*(6), 1178-1197. doi: 10.1037/a0027143

Steinberg, W. D. (2007). Best practices: The ITA program: An academic bridging program for

   the changing demographics on North American campuses. *The Journal of Continuing*

   Higher Education, 55(3), 31-37. doi: 101080/07377366.2007.10400128

Struthers, C., Perry, R. P., & Menec, V. H. (2000). An examination of the relationship among

   academic stress, coping, motivation, and performance in college. *Research in Higher*

   Education, 41(5), 581-592.

Tatum, B. (1997b). *Why are all the Black kids sitting together in the cafeteria?* New York, NY:

   Basic Books.

Tatum, B. D. (2000). Examining racial and cultural thinking. *Educational Leadership*, *57*(8),

   54-57.

Taylor, S. (2012). *Health Psychology*. New York, NY: McGraw-Hill

Terenzini, P., Springer, L., Yaeger, P., Pascarella, E., & Nora, A. (1996). First-generation college

   students: Characteristics, experiences, and cognitive development. *Research in Higher*

   Education, *37*(1), 1-22.

Thompson, M. N., Johnson-Jennings, M., & Nitzarim, R. S. (2013). Native American

undergraduate students' persistence intentions: A psychosociocultural perspective.

Cultural Diversity and Ethnic Minority Psychology, *19*(2), 218-228.

doi: 10.1037/a0031546

Topp, N. W., & Pawloski, B. (2002). Online data collection. *Journal of Science Education &*

Technology, *11*(2), 173-178.

Tyson, K., Darity, W. R., & Castellino, D. R. (2005). It's not 'a Black thing': Understanding the

burden of acting White and other dilemmas of high achievement. *American Sociological*

Review, *70*(4), 582-605. doi: 10.1177/000312240507000403

 UNC Data Dashboard. (2014). Retrieved from http://www.northcarolina.edu

Utsey, S. O. (1999). Development and validation of a short form of the Index of Race-Related

Stress (IRRS)-brief version. *Measurement & Evaluation in Counseling & Development*

(American Counseling Association), *32*(3), 149.

Van Selm, M., & Jankowski, N. (2006). Conducting online survey. *Quality and Quantity, 40*,

435-456. Doi: 10.1007/s11135=005-8081-8

Vaux, A., Phillips, J., Holly, L., Thomson, B., Williams, D., & Stewart, D. (1986). The social

support appraisals (SS-A) scale: Studies of reliability and validity.

Vygotsky, L. S. (1967/1997). *Educational Psychology*. (R. Silverman, Trans.). Boca Raton, FL:

St. Lucie Press.

Wade, C., & Tavris, C. (2011). *Psychology*. Upper Saddle River, NJ: Prentice Hall Press.

Walden, C. (1994). The health status of African American college students: A literature review.

Journal of American College Health, 42, 199-205.

Wang, C. C., & Castaneda-Sound, C. (2008). The role of generational status, self esteem, academic self-efficacy and perceived social support in college students' psychological well-being. *Journal of College Counseling, 11*, 101-118.

Wei, M., Liao, K., Chao, R., Mallinckrodt, B., Tsai, P., & Botello-Zamarron, R. (2010). Minority stress, perceived bicultural competence, and depressive symptoms among ethnic minority college students. *Journal of Counseling Psychology, 57*(4), 411-422.

Weissbourd, R. (2011). The overpressured student. *Educational Leadership*, *68*(8), 22-27.

Welle, P. D., & Graf, H. M. (2011). Effective lifestyle habits and coping strategies for stress tolerance among college students. *American Journal of Health Education, 42*(2), 96–105.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: socioeconomic status, stress, and discrimination. *Journal of Health Psychology, 2*(3), 335-351.

Yorgason, J. B., Linville, D., & Zitzman, B. (2008). Mental health among college students: Do those who need services know about and use them? *Journal of American College Health, 57*(2),173-81.

Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-efficacy, stress, and academic success in college. *Research in Higher Education*, *46*(6), 677-706. doi: 10.1007/s11162-004-4139-z

Zepke, N., & Leach, L. (2010). Beyond hard outcomes: 'Soft' outcomes and engagement as student success. *Teaching in Higher Education, 15*(6), 661-673.

APPENDIX A: EAST CAROLINA UNIVERSITY IRB APPROVAL LETTER

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284**· **www.ecu.edu/irb**

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB

To: Annette Morgan

CC:
Crystal Chambers

Date: 2/26/2014

Re: UMCIRB 14-000050
A comparison of how first generation and continuing generation students of different racial/ethnic groups cope with stress.

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) is for the period of 2/26/2014 to 2/25/2015. The research study is eligible for review under expedited category #7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Name	Description
Consent Template- Consent letter for expedited survey research.doc	Consent Forms
COPE and Scale.doc	Surveys and Questionnaires
Demographic Information	Data Collection Sheet
Dissertation Proposal	Study Protocol or Grant Application
Perceived Stress Scale.doc	Surveys and Questionnaires

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418
IRB000037S1 East Carolina U IRB #2 (Behavioral/SS) IORG0000418

Study.PI Name:

Study.Co-Investigators:

One University Drive
P.O. Box 1510
Pembroke, NC 28372

UNIVERSITY *of* NORTH CAROLINA
PEMBROKE

Institutional Review
Board
FWA 00005281

February 18, 2014

Ms. Annette Morgan
Department of Psychology
UNC-Pembroke
Campus

Title of Study: **A Comparison of How First Generation and Continuing generation Students of Different Racial/Ethnic Groups Cope with Stress**
IRB Protocol #: 14-02-001

Dear Ms. Morgan:

The IRB has completed review of your protocol titled : **"A Comparison of How First Generation and Continuing generation Students of Different Racial/Ethnic Groups Cope with Stress"** and it is APPROVED. This protocol is exempt from further review under 45CFR46.101.2.b.2

Protocols that are determined to be exempt are re-evaluated every three years. If research described in this protocol will continue beyond **February 18, 2017** please contact the IRB no later than **February 1, 2017** so that your protocol can be re-evaluated prior to expiration.

Please note that if significant changes are made to the protocol, you must submit these changes to the IRB prior to their implementation in your study, as they may change the status of your review. Also, if any unanticipated or adverse events occur during this research, please notify me immediately.

Please note that your protocol # is 14-02-001. Please include this on your final consent forms and in future correspondence regarding this protocol.

Sincerely,

(consider attachment to email as electronic signature)

Rebecca Bullard-Dillard, Ph.D.
Dean, School of Graduate Studies and Research and
Chair, UNCP Institutional Review Board

APPENDIX C: RESULTS OF COPE THREE WAY ANOVA

Results of COPE Three Way Anova

COPE SUBSCALE	*F*	*p*
Positive reinterpretation and growth		
Gender *Race/ethnicity	0. 728	0. 627
Gender* Continuing Generation/First Generation	0. 067	0. 796
Race/ethnicity* Continuing Generation/First Generation	0. 166	0. 975
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 342	0. 887
Mental disengagement		
Gender *Race/ethnicity	1. 248	0. 279
Gender* Continuing Generation/First Generation	3. 541	0. 060
Race/ethnicity* Continuing Generation/First Generation	1. 598	0. 158
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 860	0. 508
Focus on and venting and of emotions		
Gender *Race/ethnicity	1. 259	0. 274
Gender* Continuing Generation/First Generation	1. 348	0. 246
Race/ethnicity* Continuing Generation/First Generation	0. 606	0. 695
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 665	0. 650
Use of instrumental social support		
Gender *Race/ethnicity	0. 921	0. 479
Gender* Continuing Generation/First Generation	0. 498	0. 489
Race/ethnicity* Continuing Generation/First Generation	0. 920	0. 467
Gender* Race Ethnicity*Continuing Generation/First Generation	1. 643	0. 146
Active Coping		
Gender *Race/ethnicity	1. 929	0. 073
Gender* Continuing Generation/First Generation	0. 049	0. 825
Race/ethnicity* Continuing Generation/First Generation	0. 137	0. 984
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 784	0. 561
Denial		
Gender *Race/ethnicity	0. 502	0. 807
Gender* Continuing Generation/First Generation	0. 407	0. 524
Race/ethnicity* Continuing Generation/First Generation	0. 739	0. 594
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 734	0. 598

Religious Coping

Gender *Race/ethnicity	0. 659	0. 683
Gender* Continuing Generation/First Generation	0. 833	0. 362
Race/ethnicity* Continuing Generation/First Generation	1. 429	0. 211
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 616	0. 687

Humor

Gender *Race/ethnicity	1. 409	0. 208
Gender* Continuing Generation/First Generation	0. 740	0. 390
Race/ethnicity* Continuing Generation/First Generation	0. 830	0. 528
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 810	0. 543

Behavioral disengagement

Gender *Race/ethnicity	0. 370	0. 898
Gender* Continuing Generation/First Generation	0. 015	0. 901
Race/ethnicity* Continuing Generation/First Generation	1. 475	0. 195
Gender* Race Ethnicity*Continuing Generation/First Generation	1. 634	0. 148

Restraint coping

Gender *Race/ethnicity	0. 695	0. 654
Gender* Continuing Generation/First Generation	0. 143	0. 706
Race/ethnicity* Continuing Generation/First Generation	0. 517	0. 763
Gender* Race Ethnicity*Continuing Generation/First Generation	1. 123	0. 346

Use of emotional social support

Gender *Race/ethnicity	1. 355	0. 230
Gender* Continuing Generation/First Generation	1. 846	0. 175
Race/ethnicity* Continuing Generation/First Generation	1. 688	0. 135
Gender* Race Ethnicity*Continuing Generation/First Generation	1. 087	0. 366

Substance use

Gender *Race/ethnicity	0. 233	0. 966
Gender* Continuing Generation/First Generation	0. 442	0. 507
Race/ethnicity* Continuing Generation/First Generation	0. 541	0. 746
Gender* Race Ethnicity*Continuing Generation/First Generation	1. 986	0. 078

Acceptance

Gender *Race/ethnicity	0. 418	0. 867
Gender* Continuing Generation/First Generation	0. 583	0. 445
Race/ethnicity* Continuing Generation/First Generation	1. 387	0. 226
Gender* Race Ethnicity*Continuing Generation/First Generation	2. 309	0. 042

Suppression of competing activities

Gender *Race/ethnicity	1. 251	0. 278
Gender* Continuing Generation/First Generation	0. 036	0. 850
Race/ethnicity* Continuing Generation/First Generation	0. 582	0. 714
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 830	0. 529

Planning

Gender *Race/ethnicity	1. 739	0. 109
Gender* Continuing Generation/First Generation	0. 002	0. 962
Race/ethnicity* Continuing Generation/First Generation	0. 655	0. 658
Gender* Race Ethnicity*Continuing Generation/First Generation	0. 326	0. 897

APPENDIX D: TWO WAY ANOVA RESULTS

Results of Two-Way ANOVA Comparing the Interaction between Gender and Race/Ethnicity

COPE Subscale	*n*	*M*	*SD*	*F*
Positive reinterpretation and growth	1,083	12. 28	2. 50	
Gender				0. 915
Race/ethnicity				1. 766
Gender* Race/ethnicity				0. 758
Mental disengagement	1,085	10. 67	2. 30	
Gender				6. 187**
Race/ethnicity				0. 448
Gender* Race/ethnicity				0. 758
Focus on and venting of emotions	1,084	9. 58	3. 11	
Gender				22. 439***
Race/ethnicity				0. 430
Gender* Race/ethnicity				1. 358
Use of instrumental social support	1,085	10. 98	2. 89	
Gender				1. 575
Race/ethnicity				0. 558
Gender* Race/ethnicity				0. 951
Active coping	1,085	11. 02	2. 34	
Gender				1. 799
Race/ethnicity				0. 982
Gender* Race/ethnicity				2. 172*
Denial	1,084	6. 94	2. 70	
Gender				0. 004
Race/ethnicity				1. 583
Gender* Race/ethnicity				0. 591
Religious Coping	1,084	10. 67	4. 10	
Gender				4. 651*
Race/ethnicity				5. 043*
Gender* Race/ethnicity				0. 705
Humor	1,084	9. 57	3. 33	
Gender				2. 620
Race/ethnicity				1. 240
Gender* Race/ethnicity				1. 166

Behavioral disengagement	1,085	7. 10	2. 49	
Gender				0. 251
Race/ethnicity				1. 279
Gender* Race/ethnicity				0. 381
Restraint coping	1,083	9. 97	2. 29	
Gender				0. 834
Race/ethnicity				2. 489*
Gender* Race/ethnicity				0. 517
Use of emotional social support	1,085	10. 17	3. 40	
Gender				11. 359*
Race/ethnicity				0. 645
Gender* Race/ethnicity				1. 297
Substance use	1,083	6. 52	3. 17	
Gender				1. 721
Race/ethnicity				0. 675
Gender* Race/ethnicity				0. 259
Acceptance	1,083	11. 28	2. 46	
Gender				0. 154
Race/ethnicity				1. 218
Gender* Race/ethnicity				0. 178
Suppression of competing activities	1,084	9. 91	2. 27	
Gender				1. 790
Race/ethnicity				1. 414
Gender* Race/ethnicity				1. 223
Planning	1,085	11. 58	2. 68	
Gender				
Race/ethnicity				
Gender*Race/ethnicity				
Planning	1,085. 00	11. 58	2. 68	
Gender				1. 907
Race/ethnicity				1. 856
Gender* Race/ethnicity				1. 781

Note. COPE subscale range 4-16. * indicates $p \leq 0. 05$; **indicates $p \leq 0. 01$; *** indicates $p \leq 0. 001$.

APPENDIX E: COPE

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Then respond to each of the following items by blackening one number on your answer sheet for each, using the response choices listed just below. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU—not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

1 = I usually don't do this at all   2 = I usually do this a little bit

3 = I usually do this a medium amount   4 = I usually do this a lot

1. I try to grow as a person as a result of the experience.

2. I turn to work or other substitute activities to take my mind off things.

3. I get upset and let my emotions out.

4. I try to get advice from someone about what to do.

5. I concentrate my efforts on doing something about it.

6. I say to myself "this isn't real. "

7. I put my trust in God.

8. I laugh about the situation.

9. I admit to myself that I can't deal with it, and quit trying.

10. I restrain myself from doing anything too quickly.

11. I discuss my feelings with someone.

12. I use alcohol or drugs to make myself feel better.

13. I get used to the idea that it happened.

14. I talk to someone to find out more about the situation.

15. I keep myself from getting distracted by other thoughts or activities.

16. I daydream about things other than this.

17. I get upset, and am really aware of it.

18. I seek God's help.

19. I make a plan of action.

20. I make jokes about it.

21. I accept that this has happened and that it can't be changed.

22. I hold off doing anything about it until the situation permits.

23. I try to get emotional support from friends or relatives.

24. I just give up trying to reach my goal.

25. I take additional action to try to get rid of the problem.

26. I try to lose myself for a while by drinking alcohol or taking drugs.

27. I refuse to believe that it has happened.

28. I let my feelings out.

29. I try to see it in a different light, to make it seem more positive.

30. I talk to someone who could do something concrete about the problem.

31. I sleep more than usual.

32. I try to come up with a strategy about what to do.

33. I focus on dealing with this problem, and if necessary let other things slide a little.

34. I get sympathy and understanding from someone.

35. I drink alcohol or take drugs, in order to think about it less.

36. I kid around about it.

37. I give up the attempt to get what I want.

38. I look for something good in what is happening.

39. I think about how I might best handle the problem.

40. I pretend that it hasn't really happened.

41. I make sure not to make matters worse by acting too soon.

42. I try hard to prevent other things from interfering with my efforts at dealing with this.

43. I go to movies or watch TV, to think about it less.

44. I accept the reality of the fact that it happened.

45. I ask people who have had similar experiences what they did.

46. I feel a lot of emotional distress and I find myself expressing those feelings a lot.

47. I take direct action to get around the problem.

48. I try to find comfort in my religion.

49. I force myself to wait for the right time to do something.

50. I make fun of the situation.

51. I reduce the amount of effort I'm putting into solving the problem.

52. I talk to someone about how I feel.

53. I use alcohol or drugs to help me get through it.

54. I learn to live with it.

55. I put aside other activities in order to concentrate on this.

56. I think hard about what steps to take.

57. I act as though it hasn't even happened.

58. I do what has to be done, one step at a time.

59. I learn something from the experience.

60. I pray more than usual.

Scale for Scoring COPE

Scales (sum items listed, with no reversals of coding):

Positive reinterpretation and growth: 1, 29, 38, 59

Mental disengagement: 2, 16, 31, 43

Focus on and venting of emotions: 3, 17, 28, 46

Use of instrumental social support: 4, 14, 30, 45

Active coping: 5, 25, 47, 58

Denial: 6, 27, 40, 57

Religious coping: 7, 18, 48, 60

Humor: 8, 20, 36, 50

Behavioral disengagement: 9, 24, 37, 51

Restraint: 10, 22, 41, 49

Use of emotional social support: 11, 23, 34, 52

Substance use: 12, 26, 35, 53

Acceptance: 13, 21, 44, 54

Suppression of competing activities: 15, 33, 42, 55

Planning: 19, 32, 39, 56

The questions in this scale ask you about your feelings and thoughts during the last month.

In each case, please indicate with a check how often you felt or thought a certain way.

1. In the last month, how often have you been upset because of something that happened unexpectedly?

  0=never   1=almost never 2=sometimes   3-fairly often   4=very often

2. In the last month, how often have you felt that you were unable to control the important things in your life?

0=never   1=almost never 2=sometimes   3-fairly often   4=very often

3. In the last month, how often have you felt nervous and "stressed"?

0=never   1=almost never 2=sometimes   3-fairly often   4=very often

4. In the last month, how often have you felt confident about your ability to handle your personal problems?

0=never   1=almost never 2=sometimes   3-fairly often   4=very often

5. In the last month, how often have you felt that things were going your way?

0=never   1=almost never 2=sometimes   3-fairly often   4=very often

6. In the last month, how often have you found that you could not cope with all the things that you had to do?

0=never   1=almost never 2=sometimes   3-fairly often   4=very often

7. In the last month, how often have you been able to control irritations in your life?

0=never   1=almost never   2=sometimes   3-fairly often   4=very often

8. In the last month, how often have you felt that you were on top of things?

0=never   1=almost never   2=sometimes   3-fairly often   4=very often

9. In the last month, how often have you been angered because of things that were outside of your control?

0=never   1=almost never   2=sometimes   3-fairly often   4=very often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

0=never   1=almost never   2=sometimes   3-fairly often   4=very often

APPENDIX G: DEMOGRAPHIC INFORMATION

Demographic Information (please check all that apply)

1. Gender:

    Female _____   Male _____   Transgender_____

2. Parent's Education Status:

    _____One or more parent graduated from a 4 year college or university

    _____Neither parent graduated from a 4 year college or university

    _____One or more parent received some post secondary education

    (education beyond high school)

3. At which institution are you enrolled?

    _____ ECU   _____ UNCP

4. To which racial/ethnic group do you most identify?

    ____White

    ____African American/Black

    ____Hispanic of any Race

    ____American Indian/Native Alaskan

    ____Asian

    _____Two or more races

    Other_____

    _____I prefer not to say

5. Education level: __Freshman   ____Sophomore   ____Junior   ____Senior

6. Employment status: hours per week

    ____ None   _____1-10 hours   ___11- 20 hours   ____21-30 hours   ____30+ hours

7. Marital Status

    ___ married with children   _____married with no children

    ___single with children   _____single with no children

APPENDIX H: KEY FOR COPE SUBSCALE ABBREVIATIONS

1. PRAG: Positive Reinterpretation and Growth

2. MD: Mental Disengagement

3. FVE: Focus on and Venting of Emotion

4. UISS: Use of Instrumental Social Support

5. ACTC: Active Coping

6. DEN: Denial

7. RC: Religious Coping

8. HU: Humor

9. BD: Behavioral Disengagement

10. RES: Restraint Coping

11. UESS: Use of Emotional Social Support

12. SUBU: Substance Use

13. ACCEPT: Acceptance

14. SCA: Suppression of Competing Activities

15. PLAN: Planning

APPENDIX I: IRB AMENDMENT APPROVAL EAST CAROLINA UNIVERSITY

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office 252-744-2914 · Fax 252-744-2284 · www. ecu. edu/irb

Notification of Amendment Approval

From: Social/Behavioral IRB
To: Annette Morgan

CC: Crystal Chambers
Date: 9/24/2014
Ame1 UMCIRB 14-000050
UMCIRB 14-000050
Re: A comparison of how first generation and continuing generation students of different racial/ethnic groups cope with stress.

Your Amendment has been reviewed and approved using expedited review for the period of 9/24/2014 to 2/25/2015. It was the determination of the UMCIRB Chairperson (or designee) that this revision does not impact the overall risk/benefit ratio of the study and is appropriate for the population and procedures proposed.

Please note that any further changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. A continuing or final review must be submitted to the UMCIRB prior to the date of study expiration. The investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Document	Description
Study title change	
Dissertation Proposal(0. 02)	Study Protocol or Grant Application

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418
IRB00003781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418

APPENDIX J: IRB AMENDMENT APPROVAL

UNIVERSITY OF NORTH CAROLINA-PEMBROKE

University of North Carolina Pembroke
One University Dr.
P. O. Box 1510
Pembroke, N. C. 28372
Insitutional Review Board
FWA 00005281

October 3, 2014

Dr. Annette Morgan
Department of Psychology
UNCP Campus

IRB Protocol #: 14-02-001

Dear Dr. Morgan:

I have reviewed your request to change the title of your study to "A comparison of coping and perceived stress among students by first generation and continuing generation status, race/ethnicity, and gender" and determined that this revision does not impact the overall risk/benefit ratio of the study and is appropriate for the population and procedures proposed.

Please note that if significant changes are made to the protocol, you must submit these changes to the IRB prior to their implementation in your study, as they may change the status of your review. Also, if any unanticipated or adverse events occur during this research, please notify me immediately.

Please include your protocol number (14-02-001) on your final consent forms and in future correspondence regarding this protocol.

Sincerely,

(consider attachment to email as my e-signature)

Roger Guy, Ph. D.
Chair, UNCP Institutional Review Board