

Under Pressure: Academic Stress and the College Undergraduate

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Under Pressure:

Stress and the College Undergraduate

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Abstract

It has been identified that academic stress is an issue plaguing college undergraduates across the country. A significant amount of academic stress can have a negative impact on both the physical and mental state of the individual. Six elements were identified as contributing to the make up of an individual's stress profile and as a result, influenced the subsequent impact that academic stress may have on their daily life. Those elements included the following; definitions of stress, reactions to stress, timing, organizational strategies, support group and peer opinions. While the abundance of academic stress observed throughout colleges and universities is discouraging, its prevalence provides a large amount of data. By identifying the factors that contribute to the severity of academic stress, the avenues to a solution were identified as well. This study surveyed 16 participants at a large, private institution known for its academic rigor and competitive undergraduate environment thus rendering it an ideal setting for a study focused on academic stress.

Acknowledgements

The motivation for this paper arose out of necessity. After struggling with academic stress for much of my college career, the research and analysis required to complete this work has personally helped me immensely. However, I would not have been able to reach this stage in my academic career without the help of a number of incredibly passionate, smart and caring individuals; the first two of those individuals being my parents. Not only were they able to send me to such a prestigious, respected institution, they were also there to support me through every step of the process. Without them, I am confident that I would not have had the opportunity to conduct this research. Dr. Celeste Wells was the most important person involved in the success of this research. Not only was she integral to the actual formation and execution of the study, she was also there for advice on the emotions associated with such work and was incredibly supportive throughout the entire process. Her patience and enthusiasm are unmatched and those qualities make her a fantastic professor and human being. Lastly, one of the key conclusions of this study involves the need for a support group. I am thankful for the incredible support group that I have maintained over the years including friends, family and classmates. Without all of the individuals mentioned above, I am confident that this research would not have been possible.

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Chapter 1: Introduction

As I labored over my college decision and looked out over the sea of acceptance letters, I thought about a number of different things. Does the school have a good reputation/vast alumni network? Does the school have competitive sports teams? In terms of the student body, are they highly motivated, accepting, competitive? While a number of these questions (and many more) raced through my head, I never once considered my mental health and the academic stress that would manifest during my first year. I would soon find out that attending a private, prestigious university, in addition to the vast resources and incredible professors, also generates a crippling amount of stress that unless promptly dealt with, can have devastating consequences. However, choice of university aside, academic stress is an issue that students at all universities, albeit to varying degrees, must learn to overcome.

As participant interviews will serve to explain, many individuals view academic stress as simply another aspect of college that students need to adjust to. While there is some truth to this, with the rapidly increasing stress levels of today's undergraduates, that adjustment process is neither quick nor easy (Ross, Neibling & Heckert, 1999). Although high levels of academic stress may result in poorer performance academically, the ramifications are far more severe than a failed exam. Unhealthy levels of academic stress, as will be discussed later, can have damaging physical and mental effects. While there are ways to raise a grade, there is always next semester, mental and physical health cannot be set aside and dealt with at a later time. In order to reduce the large amount of academic stress that undergraduates face on a daily basis, it is necessary to gain a better

understanding of what specifically causes the stress, how the students conceptualize and process the stress and finally, what are the best ways to help alleviate the stress.

The following are the research questions that were developed and served as a guide for this work; how does a college student's definition of stress impact their conception of their academic stress? What strategies do current college students use to prevent stress? How do current stress prevention techniques alter college student's perception of stress? Although the research that follows may not directly and explicitly answer these questions in isolation, the conclusions drawn will touch upon many of the underlying issues associated with these questions and academic stress in general. With a better understanding of the issue at hand, the route to a solution becomes far more achievable.

The link between academic stress and first year undergraduates has been confirmed by a significant amount of quantitative studies that discussed stress' impact on grades, the most frequent academic stressors and the negative health (both physical and mental) effects that result from high levels of academic stress (Ross, Neibling & Heckert 2008; MacGeorge, Samter & Gilihan, 2005; Misra, McKean, West, & Russo, 2000). While the abundance of data confirming this hypothesis is great, a walk through the library of a college campus could have drawn the same conclusion. As one walks through the overcrowded library they are likely to encounter students with their heads in their hands as they progress into their tenth hour of studying, massive cups of coffee to compensate for the lack of sleep, piles of textbooks for the various projects that students must work on at the same time, students using headphones to listen to music with the hopes of improved focus and one may even seen a tear or two. Now that the presence of

the stress epidemic has been quantitatively confirmed and its effects noted, it is critical that we gain a better qualitative understanding of what is happening and what individuals and universities can do in order to help their students excel in every aspect of their lives.

In order to address this gap in understanding, this research interviewed those same overly stressed students that one might see on a walk through the library. Students were not asked questions about stress and their GPA or the average amount of time they spent studying for a particular exam, instead they were essentially asked what type of emotions they experienced during these intense periods of high academic stress. By gaining a better understanding of the emotions and pressures that students were struggling with, specific programs to combat those issues could be developed with the hopes of improving the overall undergraduate experience.

It is important to note that although most of the following research is divided into a number of different sections, the sections feed and contribute to one another. The trends that were identified within the existing research on stress fell into five categories; definitions of stress, sources and perceptions of stress, coping, results of stress and stress prevention. The above categories were used to develop the research questions mentioned above. After a number of participant interviews, six elements were identified that contribute to an individual's 'stress profile,' or the way that an individual conceptualizes, experiences and deals with the stress in their life. Those six elements include definitions of stress, reactions to stress, timing, organizational strategies, support group and peer opinions. The same principle that applied to the existing literature is once again applicable with the newly identified elements. These elements do not operate in isolation and a change in one can and often does result in a subsequent change in another.

Overall, the main argument of this research is that today's students are simply not prepared to deal with the rigors of undergraduate life when they arrive at their respective college or university. As will be discussed later, students that received some type of advice on the college adjustment process, whether in a formal or informal manner, seemed to be far better equipped to perform at a high level during their first year. That being said, no two individuals will respond in the exact same way to the same educational training. Therefore, it is important to understand the various ways in which individuals understand and combat stress in order to help as many students as possible. Although college is not supposed to be an easy, carefree experience, students should not have to experience a level of mental and physical stress that can have potentially long-term negative consequences.

Chapter 2: Context and Literature Review

Introduction

Stress in academic life is not a new phenomenon nor will it be going away anytime soon. “The top five sources of stress were; change in sleeping habits, vacation/breaks, change in eating habits, increased work load and new responsibilities” (Ross, Neibling & Heckert, 1999). The aforementioned sources of stress are certainly important to know, but I believe that there is more to this story. Over the past twenty years there has been a significant amount of quantitative research focused specifically on academic stress (Ross, Neibling & Heckert 2008; MacGeorge, Samter & Gilihan, 2005; Misra, McKean, West, & Russo, 2000). This research has identified key stressors in students that both improve and inhibit performance in the classroom. In the literature review that follows, I analyzed and expanded upon the insightful data obtained by previous researchers.

Rationale

In a highly competitive world, business professionals and students alike are asked to maintain incredibly high standards. For many people, a natural result of this hyper-competitive atmosphere is some level of stress. Although the main focus of this study will be on academic stress, some of the conclusions and results obtained may be useful to other areas where stress is prevalent. While stress may have a short-term impact on student’s grades, the long-term impact on the health of the individual may be severe (MacGeorge, Samter & Gilihan, 2005). With the quantitative studies already establishing the effects of stress, it is time now to explore stress at a deeper qualitative level.

Stress can come from a variety of places. The fact that this invisible force impacts every individual in a different way makes it worthy of a closer look. While nobody argues that stress is imaginary, and many offer various “coping” strategies, I am curious to find out how well we actually understand stress from a qualitative standpoint (Struthers, Perry, & Menec, 2000)? Before we can formulate a plan to address a problem, we must first understand the problem at hand.

Gaps in Research

To this point, much of the research surrounding academic stress has been done quantitatively. For instance, according to Ross, Neibling, and Heckert (1999) we know that 89% of college students surveyed feel stress from new sleeping habits associated with college. However, in order to answer this question, students had to draw on their own personal definitions of stress. These studies did not operationalize stress or in other words, they did not provide a specific definition for what they considered ‘stressful.’ If the situation presented to the students does not meet their threshold for what they consider ‘stressful,’ then the answer to the question will be no. However, with a different definition of stress, the student may have answered yes. Although quantitative studies are good at identifying the most frequent stressors for students, they are not well suited for deeply understanding the personal perception and sense making involved with stress. With a qualitative, interpretive study, I will try to peel back the layers of stress to understand both the root causes of the issue, and how it can be monitored in the future.

Goals

The goal of this small-scale research project is to offer data to universities that could be useful in improving the first year experience of freshmen. From a personal

perspective, coming into freshman year at a relatively large institution from a relatively small high school, I was radically unprepared. Had I been exposed to some of the more stressful aspects of college life, I believe that I could have been far more prepared than I was. Before every student goes off to college they hear, ‘study hard,’ and ‘it’s the best four years of your life.’ Those idioms don’t explain, ‘how hard do I have to study to study hard? Or, how is anxiously waiting to get a test grade back supposed to be a shining moment in the best four years of my life?’ The stressful realities of college are not communicated to those who need to hear them most, freshman. “College students, especially freshmen, are a group particularly prone to stress” (Ross, Neibling & Heckert, 1999). My goal for this research is that the takeaways contained within it could one day make a difference. If my work makes the transition to college easier for just one incoming freshmen, then it was all worth it.

Literature Review

The remainder of this chapter will critically analyze and evaluate the existing literature surrounding both academic stress and stress in general. The analysis will be divided into five sections and is organized according to subtopics related to academic stress. The subtopics include: definitions of stress, sources and perceptions of stress, coping with stress, results of stress, and stress prevention. The sections have been organized according to their respective positions in the ‘stress process,’ starting with how different individuals define stress, and ending with the mental and physical results that an individual may encounter when dealing with stress. The literature outlined in this section and the research that was conducted for the purpose of this study, will work together to

create a new outlook on academic stress, its consequences, and how we can try to prevent it.

The motivation for this research arose out of personal experience and necessity. The stress that engulfs students, specifically during their college years, is intense and can carry with it devastating consequences. The purpose of this study is to ultimately prevent unhealthy stress before it has the chance to derail and potentially destroy a college student's chances of success. The existing literature that was used as a foundation for this study, will serve to validate and strengthen the message of this research.

Definitions of Stress. To some, stress is a buzzword that has come to represent a wide variety of ambiguous circumstances and indefinable states of being (Charlton, 1992). As a result, Charlton (1992) believes that the word "stress" should be eliminated from our current vocabulary and replaced with words like "pressure" or "tension." When we say something is 'stressful' or 'I'm stressed,' we tend to forget that stress is not a defined or factual entity that can be easily measured or categorized. Stress itself can be defined as a stimulus, a response, or as some combination of the two. If we interpret stress as a stimulus, we are agreeing that the given situation is inherently 'stressful' in and of itself. On the other hand, if we interpret stress as solely a response, then a variety of situations can be considered 'stressful' due to the stress that the individual feels as a result of the situation. The most realistic and functional definition of "stress," involves a combination of stress as a stimulus and as a response (1992). With this mixed definition, it allows for a wide variety of events to be considered 'stressful,' in order to account for the wide variety of events from which individuals may report feeling some level of stress.

As we move away from semantic differences and explore more concrete definitions of stress, Baron, Hardie & Roemer (2009) begin the conversation by defining stress as, “A real or interpreted threat to the physiological or psychological integrity of an individual that results in psychological and/or behavioral responses” (p. 112). While Charlton was hesitant to define stress in such certain terms, the above definition can be interpreted as Charlton’s mixed definition approach that combined stress as a stimulus and as a response. Once an individual has formulated their own definition and threshold of what they consider stressful, they move on and encounter events that they must deem ‘stressful’ or ‘not stressful.’ These events can be divided according to whether they are physical or psychological. Baron, Hardie & Roemer (2009) state examples of physical stressors include instances of unusual heat or cold, disruptive lights and irritating noise. On the other hand, examples of psychological stressors may, but are not limited to, relational difficulties, embarrassment and loneliness. As a result, all of the above stimuli create some type of unique response in the individual. Not everyone experiences the same event in the same way. Due to having different definitions or thresholds for ‘stressful’ events, individuals that face identical issues may react in drastically different ways. Ultimately, the response to a stimuli and the resulting fallout are highly dependent on the individual and not a direct result of the event.

Why is it important to understand the different definitions of stress? As Stvan (2013) explains, in the case of physicians, it is critical to understand a patient’s definition of stress in order to provide proper treatment. While one patient may complain of stress and seek medication, another patient may feel that the events in question cause little to no stress. It is important for physicians to understand if the symptoms that the patient is

feeling are due to sources outside of the body, internal bodily sources, or most commonly, an emotional state. Arriving at a mutually understood definition of stress between the patient and doctor is a critical step towards moving forward with resolving the situation at hand. While everyone is entitled to their own definition of stress and is free to judge whether or not an event is stressful, at times, a clear definition of stress is needed in order to assess and resolve certain situations.

To this point, we have referred to stress as an ambiguous, non-definable, non-concrete idea that is unable to be directly observed. Graham and Ruiz Pozuelo (2017) have created a model framework to analyze stress in relation to age and happiness. The relationship between age and happiness can be modeled as a “U-Curve” (2017). Happiness starts at a very high level at birth; however, as age increases on the x-axis, happiness then steadily declines on the y-axis until the individual reaches the midway point in their life where happiness reverses course and begins to rise thus creating the “U” shape. The direct inverse to the “U” relationship between happiness and age, stress has a reverse “U” shape in reference to age (2017). At birth, stress is almost non-existent and is limited to physical stressors that individuals may experience early in life. However, as age increases on the x-axis, on the y-axis, stress begins to rise until the individual hits the midpoint in their lifetime where stress begins to slowly decrease. The importance of these two models is that they create a potentially dangerous situation. The low point of the age and happiness curve coincides almost exactly with the high point of the age and stress curve thus creating a ‘perfect storm-esque’ scenario. According to Graham and Ruiz Pozuelo (2017), this result is not a coincidence and suggests that the two variables, happiness and stress, are in close relation to one another. While many

naturally observe that happiness and stress are closely related to one another, models such as the one discussed above can provide insight into how we can maintain that happiness while also reducing stress.

Sources and Perceptions of Stress. According to a recent study, millennials have (by far) the highest self-reported stress levels of any age demographic (Aon, 2016). Studies have been conducted to identify the most frequent and harmful stressors that face millennial/college age students today (Gearhart & Bodie, 2012; Deasy, Coughlan, Pironom, Jourdan, Mannix & McNamara, 2015; Bernard, 2016; Zheng & Lee, 2016). First, within the classroom, Gearhart and Bodie (2012) identified traditional stressors such as public speaking and aversive physical situations (such as a cold classroom). Bernard (2016) analyzed academic stress from the perspective of the professor arguing that when a professor is stressed (possibly caused by factors including self-doubting and low frustration tolerance) their stress can negatively impact the classroom experience and cause students stress as a result. These studies indicate that stress can come from a variety of indirect or secondary sources that one would not traditionally believe would impact the student.

Outside of the classroom, and impacting students of all ages (not just millennials), a number of stimuli can result in stress that may impact a student's academic life. Some of these stressors include poor diet, physical inactivity, tobacco smoking, and alcohol consumption (Deasy et. al, 2015). While these factors are not directly academic, the resulting effects, such as chronic disease, can have a direct impact on a student's academic performance (2015). Continuing with the phenomenon of outside stimuli impacting a student in the classroom, technological innovations have introduced a new

type of stress. Zheng and Lee (2016) have coined the term “technostress,” which can be defined as the experience of stress when using technologies. The mobile technology that we engage with every day is slowly drawing us away from meaningful interactions while transporting us into a cyber world riddled with this new form of stress and anxiety. This new source of stress frequently leads to decreased social activities as well as social interactions. As we learn from Pauley and Hesse (2009), this decrease in social activities/social interactions and the beginnings of depression, can lead to first, an increase in alcohol consumption, and as a result, lead to a drastic increase in academic and social stress levels. Although we may not see the direct correlation between one event and a stressful result, as illustrated above, numerous events may work in conjunction to create various forms of stress and anxiety.

In addition to stress created in the classroom (i.e. academic rigor) and stress created by the actions of the individual (i.e. consumption of alcohol), one’s environment and culture can also create a significant amount of stress. Physical and emotional change can have incredibly powerful effects on an individual (Ross, Neibling & Heckert, 1999; Wisse & Sleebos, 2016). Not only may one’s physical location change, but with that physical change comes an emotional change as well (2016). In terms of a group particularly vulnerable to stress, college freshmen, the transition to a new setting and way of life can be particularly stressful if they do not have a strong support system to help guide them through the process (Ross, Neibling & Heckert, 1999). It is not only the physical change that is causing these issues, but the combination of the change mediated by the individual’s self-perception and reaction to the change that creates the increase in stress (1999).

To this point we have only discussed sources of stress that may be considered external, or originating from outside sources. However, it is possible for an individual to create stress internally. The creation of one's own stress generally comes from an effort/reward imbalance or ERI (Eddy, Hackenberg, Wertheim, Kent & Wright, 2016). A high ERI is related to a diminished level of resiliency and a heightened level of stress. Khan, Hamdan, Ahmad, Mustaffa and Mahalle (2015) state that individuals from low-income and non-religious families are more prone to stress. These individuals, in particular, feel that they have been given little in return for their efforts (2015). The dissonance created between what the individual feels that they deserve versus what they actually receive, is what creates the ERI mentioned above.

The sources of stress outlined above are potentially damaging and emotionally/mentally frustrating, yet they are entirely dependent upon an individual's perception of stress (framing of the situation). As a result of perceptual differences, professors have been shown to estimate students stress levels as significantly higher than students did (Misra, McKean, West & Russo, 2000). This bias stemmed from the fact that professors were limited to observing and interacting with students in the classroom, arguably the most stressful situation that a student can be in. Had the professors had the opportunity to interact with students in different settings outside of the classroom (i.e. get to know students' personalities instead of just their intellectual capabilities), their perceptions and opinions of students may have drastically changed and allowed their stress level ratings to be more accurate. When taken from a different perspective, the self-perception that students have also has a dramatic effect on self-reported stress levels (Chadwick, Zoccola, Figueroa & Rabideau, 2016; Liu, Wang, Ren & Liu, 2017). The

resulting stress can be prolonged or ameliorated as a direct result of how individuals appraise and evaluate events (2016). With this information, some individuals have tried to alter the perceptions of others in order to mediate the effects of stress. One such outlet for this type of communication is Facebook. It has been determined that there is a correlation between received emotional support via Facebook, and an individual's perceived stress level (Wright, 2012). In other words, if a Facebook friend shares an inspirational post or writes an encouraging quote on the individual's 'wall,' Wright (2012) suggests that the individual's perceived stress level will be lower. The factors considered for this study included, similarity, physical/social attraction, emotional support and perceived stress. A regression analysis resulted in the following conclusions; perceived emotional support was predictive of lower perceived stress for Facebook partners and attitude homophily/social attraction were significant predictors of perceived emotional support (2012). Simple communication such as a supportive comment on a troublesome post has the ability to alter an individual's perception of stress. Regardless of the intensity or type of original stressor, the impact of the resulting stress is, at least somewhat, dependent upon the perception of the individual.

Coping. As the following section will outline and analyze, much of the literature surrounding stress is focused on coping and managing stress after the fact. When conducting a study surrounding academic stress, specifically in college students, the transition to college is a logical place to start given that historically, it is a common source of stress for many incoming freshmen (Burke, Ruppel & Dinsmore, 2016).

Incoming freshman are a group that is particularly vulnerable to stress and are therefore a valuable group to analyze (Ross, Neibling & Heckert, 1999). Although many

freshmen may experience the transition to college differently, the stress traditionally comes from a physical change of scenery and an increased level of responsibility. As such, many students will turn to their parents as sources of comfort and a way to cope with their changing atmosphere (Burke Ruppel & Dinsmore, 2016). As Burke, Ruppel & Dinsmore suggest, a student's parents can be a valuable and incredibly helpful source of information and stress relief but if and only if, there is honest and open communication between the two parties. While reaching out to parents may be beneficial and comforting, there are certain conditions where this behavior may make the transition more difficult. According to Morazes (2016), if a student is reaching out for help to parents who have not attended college, there is little that the parents can do to aid in the transition process. This may be due to a lack of experience or a lack of understanding as to how the transition process actually works. Overall, and with any type of stress, including the stress caused by the academic environment, without experience and understanding, an individual will not be able to help with the coping process.

As the transition process continues, students will traditionally make friends who they believe will aid in ensuring a positive transition experience. According to Wright, King & Rosenberg (2014) and the self-verification theory, students tend to choose friends and relational partners that will verify and confirm their self-conceptions. While this practice may provide students with others to confide in throughout the transition process, if all members of the social network are too alike, this can hinder the group's ability to transition well. Similar to the theory of groupthink, or a group's inability to consider outside alternatives, if like-minded people only confide in other people with a similar

mindset, it makes problem solving difficult and may eventually create a vicious cycle that results in a poor transition experience.

When individuals create a diverse social network during their transition to college, a group composed of individuals with a range of backgrounds and more importantly, a range of experiences, it can serve as a strong support system and positively impact the individual both during the initial transition to college and throughout the rest of his or her college career (MacGeorge, Samter & Gillihan, 2005; Miczo, Miczo & Johnson, 2006; Booth-Butterfield, Booth-Butterfield & Wanzer, 2007). As one's social network continues to grow and interact, the literature suggests that there is a positive association between positive communication and decreased stress levels (MacGeorge, Samter & Gillihan, 2005). One example of 'positive communication' includes the use of humor to distract or alter the mood of individuals (Booth-Butterfield, Booth-Butterfield & Wanzer, 2007). However, if an individual does not receive positive communication and does not find another healthy way to cope with stress, they may reach a level where medical care is needed. If an individual receives only a small amount of the 'positive communication' discussed earlier, either from parents, fellow students, or even professors, the likelihood that they seek medical care when necessary, is greatly increased (Miczo, Miczo & Johnson, 2006). The above literature has served to demonstrate the positive impact that relational and interpersonal based coping strategies can have on an individual's stress level.

After examining coping from the interpersonal point of view, a variety of coping strategies are focused on the individual as the sole party involved in the process.

According to a recent study, the top three stress management (or coping) techniques

reported by teens are playing video games, surfing the Internet, and exercise (APA, 2013). This study serves to show that although we have previously examined a variety of interpersonal methods of coping, individuals tend to isolate themselves when coping with stress instead of reaching out for help. Another way to reach out for that necessary help that was not discussed during the interpersonal analysis, involves the use of religion. As Stoltzfus & Farkas (2012) argue, religion can be a powerful mediating factor between an individual's perceived stress level and their current state of being. For those individuals, this turn to religion as a coping mechanism may be an effective way to mediate the effects of stress (2012). Kahn et. al. (2015) finds that the students that reported the most academic stress were male, from low-income families, and interestingly, non-religious. Additionally, the students who reported as being 'non-religious,' tended to suicidal ideation more than their religious counterparts (2015). While this particular study focused on comparing Indian and Malaysian students, it has implications for the American undergraduate student; the chosen "coping strategy modifies the relationship between academic stress and suicidal ideation" (2015). Overall, whether it be at the individual or group level, there are a variety of positive and effective ways to cope with stress. The next section will cover negative and harmful coping strategies. The analysis will follow the literature and focus largely on alcohol as a method of coping

Negative/harmful coping strategies. Research has confirmed that the non-medical use of stimulants and alcohol to both improve and cope with academic performance is becoming a more frequent practice among college students (Ponnet, Wouters, Walrave, Hierman & Van Hal, 2014). This increased use of alcohol has generated a large amount of research and is correlated with a variety of negative effects

including a decrease in academic performance (Russel & Arthur, 2016; Wemm et. al, 2013; Deasy et al., 2015; Merrill, 2014). As students navigate through the college process, from their transition to college as a freshman all the way through graduation, student's expectations surrounding alcohol evolve and change along with them (Russel & Arthur, 2016). Once one enters the collegiate atmosphere, many choose to subscribe to the current culture that is already in place. At a large number of colleges and universities, this culture involves freshman observing upperclassmen using alcohol to cope with stress as both a method of social enhancement, and as a component of identity. In addition to identifying alcohol once again as a frequent source of coping, Deasy et al. (2015) has found that rates of tobacco smoking also increase with stress. Alcohol and tobacco, both separate and together, can create a dangerous combination that may lead to chronic disease and premature mortality if continued for an extended period of time. While the above research holds true for a large majority of college students, Wemm et. al (2013) has found that female college students in particular, are becoming especially prone (at higher rates than in the past) to engaging in problematic and excessive drinking or tobacco use as a coping strategy. "In all cases ($n = 88$), drinking habits were positively correlated with higher perceived stress, with increased motives for drinking, and with a higher awareness of the negative consequences of drinking. In particular, participants declared that the most common motives for drinking were to cope with problems and stress and to enhance pleasure" (p. 152). Although this study was conducted in a laboratory setting, the authors were able to conclude that the problematic drinking habits that they observed, especially in females, can lead to an impaired physiological response to stress and prolong the effects of stress. Overall, alcohol has been identified as one of

the most common negative forms of stress coping and can lead to a variety of negative consequences, a few of which will be discussed in the next section.

To this point, alcohol has been identified as a frequently used coping mechanism; however, the negative effects that it can bring to individuals beyond the physiological, have only been briefly discussed. Merrill (2014) has identified those negative effects as: impaired control, diminished self-perception, poor self-care, “risky” behavior and a strong dependence on others. In conjunction with the “Sources and Perceptions of Stress” section outlined earlier, the negative effect that this research is most concerned with is self-perception. Self-perception, as we have mentioned before, can greatly alter the effects of stress and how well individuals deal/cope with stress and move forward. As self-perception continues to decrease, stress coping levels decrease as well and can lead to a decrease in overall health (Yildirim, Karaca, Cangur, Acikgoz & Akkus, 2017). This finding speaks to the necessity of this research and the positive impact that it can potentially have. A negative impact on academic performance is one thing, however, a negative impact on overall health and one’s physical/mental well-being brings the issue of stress to another level. Identifying the root causes of stress and identifying how we can prevent the use of the negative coping strategies outlined above, will not only allow us to improve academic performance, but limit the negative health effects on individuals.

Whether it be coping through alcohol, or energy drinks as Champlain Pasch & Perry (2016) identified, each individual tends to gravitate towards some coping mechanisms and away from others. Champlain, Pasch & Perry have identified a correlation between the consumption of energy drinks and a lower cumulative GPA. “Our quantity by frequency past month energy drink consumption measure was

significantly associated with GPA such that greater energy drink consumption on a greater number of days in the past month was associated with a lower GPA” (p. 352). The overarching impact of this finding is that every coping strategy has positive and negative effects. While consuming an energy drink may make one more alert and able to study, one’s ability to concentrate and retain information may decrease. This suggests that researchers must identify which coping strategies will combat stress but not inhibit other aspects of the individual. As Struthers, Perry & Menec (2000) suggest, problem-focused coping, as opposed to emotion-focused coping, is the best way to ensure that one employs a productive and positive coping strategy. While emotion focused coping, such as consuming alcohol, may alter one’s perception of stress in the short term, it is only problem-focused coping that can lead to a resolution of the stress-causing issue and a long-term solution. By engaging in problem focused coping strategies, such as identifying better study habits or organizational strategies, students were more likely to be motivated and performed better than students who engaged in emotion-focused coping (2000). Once research has identified how to promote problem-focused coping and lead individuals away from emotion-focused coping, the discussion surrounding academic stress and its effects may drastically change. However, until then, we must identify the best ways for individuals to both prevent stress and, when stress does occur, how to deal with it properly.

As we conclude our review of the relevant literature-surrounding coping and prepare to move forward, it is important that we connect coping strategies and individual’s perceptions and definitions of stress. According to Persike & Seiffge-Krenke (2011), an individual’s perception of stress, which is closely related to their

choice of coping mechanism, is highly dependent on their “cultural scripts and values.” For example, those who spent their adolescent years in the western regions of the world were far more likely to negotiate, seek support, and find positive emotional outlets than their eastern counterparts (2011). This inability to evaluate stress as a static and definitive entity is all the more reason why it is necessary to study how we can prevent stress and decrease the need for coping. Relating coping back to the opening section on definitions of stress, Baron, Hardie & Roemer (2009) explain how coping mechanisms and one’s definition of stress are of critical importance to the medical treatment of stress and anxiety. Baron, Hardie & Roemer’s definition of stress mentioned earlier (stress as a real or interpreted threat to one’s physiological or psychological integrity), coincides with how individuals choose which coping mechanism to implement in order to combat the effects of stress. Baron, Hardie & Roemer (2009) have identified the formula for stress as “a stressor (a stimulus) generates stress (a response) in the individual,” which can be physical or psychological. The importance of this formula is that while the stressor may be uniform for a number of individuals, the response that each individual has to the same stressor can vary widely and it is this unknown response that leads to the choice of different coping strategies. The major takeaway from this review of coping-focused literature is that an individual’s unique response to stress can lead to a wide variety of positive or negative coping strategies that the individual may choose from in order to ‘resolve’ the issue.

Results of Stress. The following section discusses what can happen when individuals either employ poor/destructive coping habits, or try to ignore the stress altogether. When an individual tries to ignore the stress and rely solely on their resilience

(repress the feelings associated with stress/refuse to acknowledge them), the resulting effects of stress can be detrimental (González-Torres & Artuch-Garde, 2014). Resilience, or one's ability to return to or remain at one's original form, varies between individuals. The literature focused on the results of stress discusses what happens when that resilience runs out and the full effect of the stress is unleashed on the individual.

According to a study conducted by the American Psychological Association (2013), the most reported symptoms of stress (according to US teenagers) included: feeling irritable or angry, nervousness or anxiety, fatigue, inability to sleep, headaches, crying, feeling overwhelmed and finally, sadness. While the previous symptoms may be reported most frequently, it is important to mention, as we have with a number of other points throughout this work, that not every symptom is experienced in the same way by every individual. This difference in experience is largely a product of one's resilience and their ability to handle difficult situations (González-Torres & Artuch-Garde, 2014). Once we can understand how a variety of individuals understand and experience the wide range of stress related symptoms, we can go about finding ways to prevent and treat them.

After identifying the symptoms of stress outlined above, the American Psychological Association focused on one symptom in particular, inability to sleep, and analyzed the effects that this symptom specifically, can have on an individual (APA, 2013). This study suggests that those who get fewer than eight hours of sleep per night have a significantly higher stress level than their peers (2013). The additional symptoms that they identified that correlate to a lack of sleep include losing patience, anger/aggression and again, a feeling of being overwhelmed. The results of the two

previous studies combine to provide this research with an understanding of the many potentially harmful results of stress and where stress prevention research should focus its efforts.

Now that the specific results of stress have been identified, it is necessary to examine the effect that these results have on the individual. As many of the previous studies mentioned throughout this analysis have suggested, students' depression, anxiety, and stress, are all negatively related to their academic achievement (Carton & Goodboy, 2015). The damaging results of stress serve to generate a vicious cycle that can potentially derail the individual and not allow them, without significant effort, to get back on track. Students with poor psychological well-being, or students that have been the victim of a variety of the stress symptoms outlined above, are far less inclined to communicate in class. This inability to communicate or participate during class may lead to a diminished understanding of the material and an altered self-concept resulting in lower grades and more academic stress, resulting again in a lack of desire to communicate in class. In order to break this cycle, students with high levels of stress that experience an increased risk of academic difficulties, substance abuse or emotional problems, have turned to organizations and platforms like "My Student Body" in order to help deal with their situation (Chiauzzi, Brevard, Thurn, Decembrele & Lord, 2008). "My Student Body is a comprehensive, evidence-based, online prevention program that gives students the tools to choose behaviors that help them successfully navigate the social pressures of the campus environment and achieve academic success" (2008). Students, who have attempted to lower their stress levels through the use of platforms such as My Student Body, have shown positive results and the reduction of academic

stress (2008). Although any tactic that can reduce stress is welcomed and accepted, strategies such as this one once again, only deal with the symptoms of stress instead of preventing those symptoms in the first place.

Once the student leaves the classroom, the sources/results of academic stress continue to follow them everywhere they go. As Mason, Zaharakis & Sabo (2016) suggest, in addition to academic stress, increased social stress in the context of peers is associated with substance abuse and consequently, more overall stress. The importance of this theory is to understand that academic stress is not operating in isolation. As individuals encounter a combination of academic stress and social stress, individuals experience issues like loneliness and isolation. While Mason et. al. identified peer network counseling as a mediating factor for stress, they also concluded that peer network counseling had little to no effect on those who turned to binge drinking or marijuana, two of the coping strategies that we mentioned earlier. The inability to reach those who gravitate towards negative coping strategies in order to deal with stress adds to the need to combat stress before it has the chance to adversely impact individuals.

What happens when the results of stress are allowed to linger for too long without treatment and without being resolved? Chronic stress is a major risk factor for depression and anxiety (Sadler & Bailey, 2016). According to Sadler and Bailey (2016), the risk factors that lead to chronic stress develop early in adolescence and up to half of adult disorders related to stress begin during an individual's teenage years. Although it may be difficult to understand how stress can become so intense that it leads to various disorders later in life, research has revealed that the connection lies in the theory of rumination (Vanderhasselt, Brose, Koster & De Raedt, 2016). "Rumination is a maladaptive form of

emotion regulation and seems to be the cognitive mechanism linking stress to depressive symptoms” (p. 128). In other words, when an individual is under stress, they constantly think about that stress and it ultimately consumes them. Individuals have difficulty with letting go and allowing others to help them move on from the stressors that they are currently experiencing. Once again, rumination is another problematic entity that occurs after the individual is already experiencing some level of stress. In order to avoid potentially damaging rumination and future disorders, it is necessary to identify how to prevent the stressors from impacting the individuals in the first place.

Stress Prevention. With regards to the analysis contained in the fifth and final section, the section that will become the focus of this research, it is important to understand that only a small amount of research on the prevention of stress has been done and is thus the missing piece that will lead to the resolution/improvement of stress. There are a variety of potential solutions, but none that move past a baseline or introductory level. It is the goal of this research to further investigate what common methods of prevention are successful, while other fail and why.

While making statements that generalize or represent all college students as a monolithic group, it is important to understand that academic stress is a problem that is plaguing colleges and universities across the country (Valerio, 2016). Performing a 15,000 participant nationwide study, Valerio demonstrates that academic stress has permeated the college environment and is impacting a wide variety of college students today. This same study suggested that poor sleep is associated with lower grades, higher rates of health issues and higher rates of emotional issues. These findings suggest that one potential area to focus stress prevention could be student sleeping habits. Valerio

(2016) suggests that if university academic stress intervention efforts focused on students sleep quality, it could potentially improve academic performance and overall long-term quality of life. However, the above study fails to account for the student perspective. While university sleep intervention efforts may help to some extent, they fail to examine underlying issues and instead simply prompt students to sleep more. Although stress is a nationwide problem, we have yet to find a nationwide answer that can help the thousands of college students that are impacted by academic stress.

While researching the relevant literature surrounding stress prevention, a large majority of available work has been done from a quantitative perspective (McKinley, 2013; Mansson, 2013; Çakir et al., 2017; Whitaker, Dearth-Wesley & Gooze, 2014; Hoorelbeke et al., 2015; Harrel, Gillespie & Neigh, 2016; Demerouti et al., 2016). The goal of many of these studies is to identify certain areas of impact that may have an effect on an individual's stress level. However, no studies were found that implement any of these suggestions in order to measure their effectiveness. For example, one study concluded that, "researchers and health practitioners should seek to isolate the types of supportive messages that will most likely elicit greater self-confidence" (McKinley, 2013). While this conclusion is helpful, the connection between greater self-confidence and decreased stress levels has been identified for decades and therefore, research should begin to determine what the best "supportive messages" are. Continuing with the idea of supportive communication, one scholar sought to identify if the source of the supportive communication had any impact on the receiver's stress levels (Mansson, 2013). Using Affection Exchange Theory, Mansson (2013) concluded that there was an association between perceived love, self-esteem and caring received from grandparents, and their

grandchildren's overall stress level and mental health. This conclusion suggests that not only are supportive messages themselves important, but the individual that provides them is important as well. While Burke, Ruppel & Dinsmore (2016) already identified that supportive communication received from parents can reduce stress, Mansson (2013) stated that a lack of supportive communication from grandparents can increase overall stress levels. In other words, a student's grandparents cannot decrease (like parents can), but can increase, his or her stress level. While negative communication can increase an individual's stress level, a lack of positive communication can result in the same change.

Another common area of interest when researching stress prevention is an individual's energy level in relation to perceived stress. While it is known that varying energy levels do have an impact on stress, it has not yet been determined how the energy levels may be altered, and to what extent, in order to prevent stress (Harrell, Gillespie & Neigh, 2016). However, Harrell, Gillespie & Neigh (2016), have concluded that if an individual's stress level is induced by too much "energetic stress" for too long, it can lead to a dysfunctional stress that is crippling and hard to break away from. In an attempt to find the proper energy levels to prevent stress, Çakir et al. (2017), manipulated participants energy levels using caffeine. The study concluded that if the participant had increased caffeine levels prior to the introduction of the stressor, that the effect of said stressor was not eliminated, but dampened (2017). While this result has implications for everyday, daily stressors, researchers have also concluded that regular caffeine treatments might be a viable option for those who suffer form chronic stress or anxiety (2017). Unfortunately, there are also negative side effects to caffeine that render it an unrealistic long-term solution to the academic stress issue that this research will investigate.

In one of the few attempts to proactively prevent stress, Hoorelbeke, Koster, Vanderhasselt, Callewaert & Demeyer (2015), concluded that, Cognitive Control Training (CCT) can possibly be one way to reduce stress and avoid rumination. While CCT may reduce stress and increase resilience, this is not easy or cheap training and it is therefore difficult to implement for a large portion of college students. In a related study, Demerouti, Petrou, Sanz-Vergel & Van den Heuvel (2016) identified that self-efficacy was related to higher task performance and optimism. Self-efficacy can be influenced by a variety of the methods of positive communication that were discussed earlier making it a viable option for further study and a case for cautious optimism with regards to improving the current academic stress epidemic that plagues colleges and universities across the country.

Conclusion. The above review of the relevant academic literature surrounding definitions of stress, sources and perceptions of stress, coping, results of stress and stress prevention, will serve as the foundation for the following research. This review has served as a guide through the stress process from one's own perception of stress, to the physical and psychological result that may manifest in the individual as a result.

With regards to definitions of stress, researchers agree that one concrete definition is inadequate and cannot properly define stress. While it is understood that stress can be both a stimulus and a response, researchers are hesitant to define stress due to the fact that every individual may define what is 'stressful,' differently. It is known however, that one's definition of stress can greatly alter how they feel about and cope with certain situations. For the purposes of this research, it is necessary to take a look at how one's definition of stress can potentially prevent stressful events in the future.

Unless the stressor is physical, one's definition of stress plays a role in creating their perception of the stressful event that may or may not lead to a physical/emotional response. When conducting a study on academic stress and the college student, one of the first places to investigate is the college transition process. Although there are a variety of different ways for students to experience the transition to college, there is a fair amount of literature that suggests that it can be an incredibly stressful time. While it may be difficult to prevent the stress of moving to a new school potentially far away from one's home, we can try to prevent the added stress that comes with the college course load. An abundance of 'supportive communication' has been found to mediate some of the stress that not only first year students, but all students, experience while away at school. However, little research has been conducted to determine what qualifies as supportive communication and what simply makes the situation worse. If an individual can alter their perception of stress in order to maintain a positive outlook, the research suggests that they will remain happier and more successful than their stressed classmates.

A large majority of the literature surrounding academic stress has been focused around different coping strategies and the possible positive and negative side effects that may come as a result. The sheer structure of how stress research is done is one concern of this research. Due to the fact that most of the research is focused on coping, a practice that can only occur once the individual is stressed, little to no research is being done to prevent or combat stress before it can impact the individual. As this research hopes to prove, by preparing correctly, college students specifically, can prevent a large amount of unnecessary stress from impacting their everyday lives. While it is unrealistic to think

that stress can be completely eliminated, there are superfluous stressors in our everyday lives that can hinder and possibly derail our success.

The results of stress can vary widely from person to person but typically revolve around anxiety, feeling overwhelmed, and various forms of anger. These symptoms are unique to every individual and manifest as a result of a stressor that was unable to be resolved through the initial coping process. While there are obvious negative results of stress, like a weakened immune system and frequent sickness, the symptoms that are not as noticeable, such as anxiety, can be just as harmful. The only way to ensure that student's individual stress levels do not reach this dangerous point is if research can identify the best ways to prevent, not cope with, the most destructive forms of stress. The fifth and final category, stress prevention, serves to introduce the main focus of this research. While a small amount of research has been done on the topic, it is severely disproportionate with regards to the severity of the academic stress epidemic plaguing college students today.

Chapter 3: Description of Theory

Integrative Theory of Communication and Cross Cultural Adaptation

Y.Y. Kim's (2001) Integrative Theory of Communication and Cross Cultural Adaptation (ITCCA) can be defined as follows; "the dynamic process by which individuals, upon relocating to new, unfamiliar, or changed cultural environments, establish and maintain relatively stable, reciprocal, and functional relationships with those environments" (Pitts, 2009, p. 451). Kim's theory has been previously used in relevant literature in order to understand how "sojourners meet the demands of an unfamiliar culture, and strange people, tasks, and situations" (p. 451). Within the context of Pitts (2009), Kim's theory was used as a framework to understand how undergraduates transition to a new environment when studying abroad. For the purposes of this research, while there may be the added element of a new language, the transition to studying abroad and entering one's undergraduate career at an unfamiliar university is incredibly similar. When undergraduates study abroad, they must adjust to a new culture, new personalities, a new academic system with different expectations, and more generally, a new way of life. In a similar manner, when a student chooses to attend a university, he or she will also have to deal with similar challenges. For example, some of these challenges may include the transition involved with attending a private/religious college after attending a public high school, adjusting to a rigorous curriculum after progressing through high school 'easily' and possibly interacting with a completely different demographic (e.g. if you came from a largely homogenous region, a different socio-economic class, etc.).

Kim's ITCCA can be described and modeled as a spiral (Pitts, 2009). The spiral begins as the individual is exposed to the new culture and continues to rise and "tighten" as the individual continues to grow and adjust to their new surroundings. The logic behind using a spiral as the framework for this theory is rooted in the idea of individuals experiencing what Pitts (2009) calls "draw back" and "leap forward." An individual may feel as though they are becoming cultural adept and comfortable in their surroundings but once an instance occurs where an individual experiences some type of stress/incongruence within that culture, they will "withdraw" and experience "draw back" (2009). When individuals withdraw, they slide back down the spiral. It is not until they can once again feel comfortable in that culture that they experience the "leap forward" which results in a tightening of the spiral. As individuals continue to experience draw backs and leaps forward, they begin to experience a "calming effect" (2009).

At the core of this theory is the notion of achieving an environmental-individual 'fit.' This is made possible through engaging in intercultural encounters, withdrawing to regroup in the face of an adjustment stressor, developing a more cultural perspective and/or interactional style, and then trying again, each time achieving a closer fit (p. 451).

Stages of the ITCCA. Kim divides the ITCCA into three different intercultural transformation stages that occur during the adaptation process, all three of which blend together at times and serve to help the individual become increasingly comfortable within their new environment. The first stage can be described as follows; "first, the sojourner achieves a level of functional fitness in which [they] are able to interact competently in the host society" (Pitts, 2009, 451). With respect to this research, this stage would

involve learning any unique language involved in navigating the university, typical activities/traditions that students engage in and the overall culture that students will be exposed to as a result of attending a particular university. Universities can aid students during this stage by holding informational presentations during summer orientation or by requiring first-year students to take an introductory course, in one form or another, that introduces them to both college life and more specifically, college life in the context of their particular university and major/interests.

The second stage of the ITCCA, as described by Pitts (2009), can be described as follows; “second, the sojourner becomes psychologically healthy and no longer experiences emotional, mental, and/or physical trauma associated with transitional stress” (p. 451). This stage is of critical importance because before undergraduates can begin to cope with the demands of their academic stress, they must first come to terms with their new environment. Ross, Neibling & Heckert (1999), identified that the transition to college for first-year undergraduates generates an immense amount of stress. The quicker/easier that individuals can progress from the second to the third stage will aid in their overall development as college students.

The third and final step in the ITCCA involves, “the sojourner [experiencing] a gradual development toward an intercultural identity, or intercultural personhood” (Pitts, 2009, p. 451). This process involves the individual coming to terms with and combining a number of their previous experiences (e.g. high school/home-life experiences) and deciding how to situate them within the framework of their new environment. For example, many individuals that played sports competitively in high school no longer compete at the college level; how does this impact their identity and outlook on school

and life in general? Overall, the three stages of the ITCCA outline the process that undergraduates must go through when making the difficult transition to college.

Expectations. Pitts (2009) suggests that within Kim's ITCCA, the expectations of the 'sojourner' (undergraduate student) play a pivotal role in how the subsequent stress will be handled. "In general, sojourners with positive expectations and previous experience abroad have greater adjustment ease, higher satisfaction, and less stress than those without" (p. 451). While the aforementioned statement concerned Kim's ITCCA with respect to undergraduates preparing to study abroad, it can also serve as a framework to study the general transition to college. If the previous statement holds true, then incoming undergraduates with positive expectations (e.g. 'I will be able to handle the increased workload') and previous experience, both dealing with stress and a prior knowledge of what college is actually like, should as a result, have 'greater adjustment ease, higher satisfaction, and less stress than those without.' However, the opposite is also true. When individuals enter a situation with certain expectations and the reality is drastically different or even the opposite, it can result in an "orienting response" from the individual (Pitts, 2009). This orienting response is inherently based in communication and it allows the individual to correct their false assumptions and hopefully move forward in the development process (stages of the ITCCA).

Discussion. Adapting to a new and unfamiliar culture, then, is more than survival. It is a life-changing journey. It is a process of 'becoming' – personal reinvention, transformation, growth, reaching out beyond the boundaries of our own existence. The process does not require that we abandon our former personalities and the cultures into which we were born (Kim, 2001).

Fundamentally, Kim's description of the ITCCA considers that the transition to a new place (in this case attending college) is incredibly difficult and can result in an uncomfortable amount of stress. At its core, the ITCCA is concerned with and articulates, "how re-settlers change from being cultural outsiders to increasingly active and effective cultural insiders" (p. 10). Lastly, Kim (2001) raises the following questions during the discussion of his ITCCA, "Why are certain individuals more successful than others in moving along the adaptive trajectory? What internal and external factors help explain their success or lack thereof?" (p. 10). These questions are answered with the results of this research.

Mere Exposure Hypothesis

In simple terms, the mere exposure hypothesis suggests, "mere repeated exposure of the individual to a stimulus object enhances [his or her] attitude toward it" (Zajonc, 1968, p. 1). A popular theory in fields such as advertising, the mere exposure hypothesis can also be applied to real-life situations. For example, the more an individual is exposed to a situation, the more comfortable they will be in dealing with it. Zajonc (1968) originally theorized the mere exposure hypothesis through experimentation involving the connotation of words and the frequency with which participants were exposed to those words. This theory is critical for the hypothesis that the earlier students are exposed to various teachings regarding academic stress and productive coping, the more favorable they will view that material and the more likely they will be to implement it in their daily lives as undergraduates. If an individual is exposed to some of this professional stress-prevention advice early on in high school, throughout high school, and then once they enter college, the mere exposure hypothesis suggests that they will be able to incorporate

these strategies (because their attitudes towards them will be favorable) easier than their undergraduate classmates who have not received this training.

The mere exposure hypothesis also comes into play as undergraduates evaluate themselves against their classmates. As will be discussed later, evaluations of their peers oftentimes drastically influenced participant's own actions. Therefore, if an undergraduate is consistently exposed to the certain behaviors of other undergraduates (e.g. not talking about stress with friends or other classmates but instead 'dealing' with it themselves), they are more likely to align their actions with the prevailing 'norm.' The mere exposure hypothesis suggests that this repeated exposure would result in an attitude change that results in the negative behavior being viewed favorably (Zajonc, 1968). The expression of this 'favorable view' is the adoption of certain behaviors/attitudes that individuals view as favored by their peers and others associated with their institution.

Theory of Selective Exposure

The theory of selective exposure refers to the tendency of individuals to actively seek out information that supports their current attitude/belief and relieves/protects them from experiencing cognitive dissonance (Sears & Freedman, 1967). Also frequently referred to as confirmation bias, the theory of selective exposure has the potential to be very harmful with regard to academic stress in a competitive undergraduate environment. For example, this research determined that talking about stress is generally an incredibly effective coping strategy. If an individual disagrees with this sentiment, he or she is inclined to seek out information that supports this belief thus perpetuating their preference for not sharing/not asking for help. This individual may point to their friend or roommate and explain how this friend never mentions school, never seems stressed,

and certainly never talks about their stress openly yet still succeeds in the classroom. The individual will justify their behavior by stating that it aligns with their roommate's behavior. However, and this is the concern of the theory of selective exposure, the same individual may neglect to recognize their neighbor who frequently voices their problems and asks for other's opinions and is also successful in the classroom. Acknowledging that there is more than one way to deal with stress (one healthier than the other) would effectively nullify the argument that 'everyone deals with stress on his or her own.' Therefore, it is important to point out the various ways through which individuals deal with stress and why some may be more effective than others.

Put simply, selective exposure can be defined as, "any systematic bias in audience composition" (Sears & Freedman, 1967, p. 195). By not allowing oneself to be exposed to varying opinions (e.g. limiting the audience by only listening to likeminded individuals) potential for growth is limited. This is especially poignant for first-year students. Participant interviews have suggested that many college students are arriving at colleges and universities severely unprepared to handle that academic and social stress associated with college. If they are unwilling to learn/adapt to the new environment, their transition is likely to be incredibly difficult and their chance for success is likely greatly decreased.

Chapter 4: Method

Participants

After the study was submitted, reviewed and approved by IRB, I began the process of identifying and gathering participants.¹ All participants were upperclassmen at a large, private institution. The decision to interview only upperclassmen (juniors and seniors) was made under the assumption that they have already experienced many of the frequent stressors, a number of times, that first and second year college students traditionally encounter. Participants were gathered using snowball and convenience sampling. A small group of individuals, known by the researcher, were identified at the beginning of the candidate selection process. Individual interviews were then conducted with the informed consent of each individual. Before each interview, interviewees were given an informed consent document that outlined all of the benefits and risks associated with participation in this study. Additionally, participants were assigned a pseudonym and that pseudonym was used during the preparation of the interview write up. Participants were then asked to provide the names of one or two individuals that they felt might be interested in participating in the same interview. Those individuals were then contacted via email and if still interested, a short interview was scheduled.

Studies that have conducted research on academic stress tend to have anywhere between 100 and 250 participants (Ross, Neibling & Heckert, 1999 – 100 students, Misra, McKean, West & Russo, 2000 – 249 students, Struthers, Perry & Menec, 2000 – 203 students). For the scope and purpose of this small-scale qualitative research project, it was determined that 16 participants provided a sufficient number of individuals in order to identify, through a qualitative analysis, a number of common trends associated

¹ IRB Protocol Number: 18.049.01

² Interview Guide attached in Appendix A

with academic stress and undergraduate students. While 16 participants is not a large enough sample size to draw generalized conclusions that will apply to all incoming freshman, this research can help identify common trends that universities can use to develop programs to better help their students.

Data Collection

All participant interviews were conducted in person and notes were taken during each interview. Interviews generally lasted anywhere between 25 and 30 minutes and were conducted in a relaxed and informal manner. This was done purposely in order to allow the participants to feel relaxed and comfortable enough to share their thoughts and experiences regarding academic stress. According to Easwaramoorthy & Zarinpoush (2006), “interviews are an appropriate method when there is a need to collect in-depth information on people’s opinions, thoughts, experiences, and feelings” (p. 1). Due to the fact that this research is focused on the opinions, thoughts and feelings of undergraduates with regard to academic stress, it was determined that in-person interviews were the best method for data collection. The interviews were conducted in a semi-structured way. A semi-structured interview involves the researcher using a predetermined set of questions and allows the respondent to answer in their own words (as opposed to a structured interview where the respondent chooses from a number of possible answers) (Easwaramoorthy & Zarinpoush, 2006). By using a predetermined set of questions, this can ensure that the researcher collects the same information from all participants and that no major points of emphasis are missed.

Interview questions were designed to understand how academic stress has impacted each individual; this includes experiences that are shared among the various

interviewees and specific instances unique to certain individuals.² Throughout the interview, a number of follow-up questions were asked based on participant responses. However, the set of questions that each participant was asked to respond to included the following; in your own words please define stress. What organizational strategies do you use to combat stress and how, if at all, have they worked? Before you entered college, what did you know about academic stress and how to cope with it? What are some strategies that you may implement in advance to avoid stress/stressful situations? What do you believe causes you stress in certain academic situations (i.e. deadlines, quantity of work, weighted relevance to grade)? Compared to your peers, how do you feel that you deal with academic stress? If you were under a considerable amount of stress right now, to what or whom would you turn to for comfort, help, or guidance?

The aforementioned questions served to get individual participants to reflect on some of the particularly stressful experiences that they have encountered in college. A number of these participants expanded their answer far beyond the parameters of the initial question and provided valuable data that was used in the following analysis. Follow-up questions based on these guiding questions allowed the participants to further elaborate on some of their more thought provoking points. Participants were also instructed that they could refuse to not answer any question and terminate the interview at any moment.

Data Analysis

Basit (2003) states that coding is used during analysis in order to organize and make sense of textual data. The data collected during the interview was compiled and

² Interview Guide attached in Appendix A

coded in order to identify significant trends. There were 54 pages of interview notes taken and subsequently coded in order to, “determine the categories, relationships and assumptions that inform the respondents’ view of the world in general, and of topic in particular” (p. 143). Coding was the chosen method of data analysis because it allows for a standardized and methodical way to comb through a large amount of data. Primary codes (the highest level) were identified and named based on a “pool of concepts that researchers already have from their disciplinary [reading], or borrowed from the technical literature, or are the words and phrases used by the informants themselves” (p. 144). Once the primary/first level codes have been identified, it is then possible to develop secondary codes in order to further improve the analysis.

The primary codes that were identified are as follows; definitions of stress, reactions to stress, timing, organizational strategies, support group and peer opinions. One of the original research questions for this study was ‘how does a college student’s definition of stress impact their conception of their academic stress?’ First, and with regard to definitions of stress, there were a wide variety of responses and participants defined stress in a number of different ways and with varying levels of detail. Second, when asked to imagine if they were in a particularly stressful situation in that moment, participant’s immediate responses were quite telling. From going to the gym to calling a friend, the avenue through which participants chose to handle stressful situations oftentimes predetermined the outcome. Third, the primary code ‘timing’ refers to participant’s first interactions with any stress-related training. Whether their parents discussed it during middle school or they learned it in a high school seminar; participants reported a dramatic range when explaining how they learned to cope with stressful

situations. Fourth, many participants reported that they engage in certain routines (e.g. updating a daily planner) that increase their awareness of potentially stressful academic situations in order to avoid becoming overwhelmed in the future. Fifth, participants reported a number of different methods through which they received support when dealing with a stressful situation. While some participants explained that their support group is comprised of both family and close friends, others were quick to explain that they are their own support group; some participants cited their desire to ‘figure it out on their own’ as their reasoning for not reaching out. Finally, through participant interviews, it became clear that peer opinions can dramatically influence an individual’s perception of both their own academic stress and their opinion of academic stress in general. Overall, the six aforementioned codes will serve as the framework through which participant interview data will be explained and interpreted.

It is important to note that once the primary codes were identified, they were not analyzed in isolation from the other codes or removed from the context in which the data was obtained. “Codes are links between locations in the data and sets of concepts or ideas, and they are in that sense heuristic devices, which enable the researcher to go beyond the data” (p. 144). The process of coding itself did not provide a sufficient level of analysis. Once identified, the codes were further researched and analyzed in order to draw significant conclusions. In addition to the six primary codes, six secondary codes were also identified. Within the ‘definitions of stress’ category, participants tended to generate two general types of definitions of stress, stress as a state of being and stress as a result of quantity. A second set of secondary codes was identified within the ‘organizational strategies’ category and further stratified the category into both

technological (e.g. Google Calendar) and physical (e.g. to-do lists on index cards) strategies. Lastly, within the category of support group, participants tended to explain either human or non-human forms of support (e.g. support through exercise vs. support through a friend). Overall, while codes operate at a macro/general level, it is important to explain the many intricacies and caveats to them as well.

Chapter 5: Analysis

Participants were asked to share how they would place themselves on a non-quantitative spectrum from little to no stress on one end and incredibly high amounts of stress on the other. The goal of this question was not to gather and interpret an objectively rated understanding of their stress but instead, how students identified. Of the 16 participants, 12 reported that they would fall on the ‘more stressed’ side and four reported that they would fall on the ‘less stressed side.’ When answering this question, one participant, James, went through the following thought process aloud;

There’s really two pieces to this. There are people that hide their stress really well but are really stressed and then there are people that just show all of their stress. I hide my stress but I know that internally I have a ton of stress. I just don’t know how much stress other people have but I have to be on the higher end.

In other words, the general consensus of the group was that, generally speaking, they felt more stressed than what they considered normal. Importantly, this meant that “more stressed” is the norm.

Through the process of coding participant responses to questions regarding this “norm of stress,” the following codes were persistent and intense: “definitions of stress,” “reactions to stress,” “timing,” “organizational strategies,” “support groups” and “peer opinions.” When looking at these codes systematically, they appeared to demonstrate the following pattern: An individual’s personal definition of stress, whether it is a definition based on a state of being or as a result of quantity, influences their reaction to a stressor. Individual’s that reacted by reaching out to other individuals (e.g. family, friends, etc.)

tended to 'deal with the stress' better than those who opted for non-human (e.g. exercising) methods of coping.

The context and time period during which these individuals learned these coping mechanisms also played an important role. Every one of the 9 individuals that mentioned reaching out to another individual as their first response when under a considerable amount of stress had received some type of training with regards to academic stress before they entered college (e.g. high school counselors, parents who were teachers, siblings that had graduated college, college preparation classes/assemblies in high school). During their time 'preparing' for college, many participants picked up a number of organizational strategies that they were able to practice with and implement before they entered college so that upon arrival, they had already become used to their own personalized organizational strategies (e.g. updating a daily planner after every class). The participants that claimed to deal with stress particularly well maintained a number of common characteristics, they frequently reached out to other individuals for support, they received some type of advice on how to handle stress, they had developed organizational strategies that work for them, and they have developed a core 'support group' that they felt they could rely on. This support group is not solely there to 'vent' to, they are also there to take the mind off of things (e.g. "I won't say to my friends 'I'm stressed,' but I will say lets go to the Plex and play basketball, I don't feel like doing work" (Amanda). In this particular case, the support group serves solely as a distraction as the individual has not suggested that their desire to play basketball is a result of stress. This support group is of critical importance because not only do their actions impact the individual's

attitude/mood, their opinions, regarding academic stress specifically, also dramatically impact the individual's own perception of stress.

Overall, according to the interviews conducted for the purposes of this research, participant reflections suggested that having training and advice about stress early on was incredibly important. Additionally, it was clear that talking regularly about their issues and concerns in order to effectively lower their stress level once they get to college was useful. By exposing students, whether this be in middle school or high school, to critical skills like keeping a planner or learning how to open up and share how you are feeling, students can tweak and alter these strategies to fit their personalities/work style and will have them (hopefully) fully developed by the time they reach college.

I had to start keeping a planner in high school. I always had so much going on at once that I just couldn't keep everything straight. I was thankful I got that suggestion then, by the time I got here [to her university], I already had this like system developed (Olivia).

The following sections will break down the six elements mentioned above that impact student stress levels and their place in the rationale for educating individuals early on in their academic career in order to help them succeed further down the road.

Definitions of Stress

Charlton (1992) believes that stress can be defined as a stimulus, a response, or some combination of the two. However, with regards to academic stress specifically, participants tended to define stress in terms of either a state of being or as a result of quantity. As a state of being, the general definition was some formulation/variation of the following, "it's when you overly worry or are anxious about outcomes that you either

can or can't control,"(David) "it's just when you have a lot on your plate but what it really comes down to is not being able to do things up to your standards without inhibiting your performance on other things,"(Amanda) "I think it's when you're really anxious and you have a lot of negative anticipation brought on by something that needs to get done or something that's just affecting you and you feel under-qualified and underprepared,"(Adam) and lastly some individuals also explained the experience of academic stress in the following way, "there is very much a feeling of permanence but it's a temporary state of being and just I don't know, like we all know what academic stress is but I can't give you like, here's what it is for sure" (Claire). The 'feeling of permanence' is concerning as it suggests that certain individuals may be living in a constant state of stress and anxiety; a state that no individual should have to experience. A number of participants struggled to eloquently describe what academic stress 'really is' so many resorted to defining stress as a result of a frequent stressor, the sheer quantity of work.

When participants chose to define stress as a result of quantity, the definitions were along the lines of the following; "being overwhelmed with a number of tasks or with a specific task that is very in depth or when you're worried about a lot of things all at once" (Noah), "academic stress is a personal thing that you feel when you have a lot of pressures coming at you" (Sarah), and finally, "stress is a mental response to being overwhelmed with the amount of workload whether it be academic, social or other" (Elizabeth). Whether participants chose to define stress as a state of being or as a result of quantity, one constant was the use of the word "thing." Transcripts of participant interviews revealed a number of 'umms' before participants were able to provide their

definitions of stress. One participant (Amanda) said the following after approximately a twenty-five second pause after the question “In your own words, please define stress” was asked, “um...give me a minute here I want to try to be eloquent about this.” The combination of the repeated use of the word “thing” and extended periods of hesitation, suggest that participants had a significantly difficult time articulating their thoughts on the matter. If participants do not understand academic stress enough to quickly and easily provide a short definition of it, how can they understand it well enough to combat its effects? This finding coincides with the conclusion of the first stage of Kim’s ITCCA and the beginning of the second stage. The participants that were able to view stress as a result of quantity have exited the first stage and are beginning to grapple with the challenges associate with the second stage. By defining stress as a result of quantity, they have been able to achieve the level of ‘functional fitness’ required for stage one but may have not yet reached the ‘top of the spiral’ or found exactly where they fit in within their new environment. “At the beginning I felt overwhelmed and that I was never going to finish it. I felt almost hopeless but I knew how to deal with it. I needed to find a way to slow down, plan and then figure out how I can act” (Noah). In this instance, although Noah can still slip into a state where he may feel overwhelmed, he now maintains a framework for how to begin to alleviate that stress. For those that defined stress as a semi-permanent state of being, it is likely that they have not yet achieved that level of functional fitness that Kim requires to progress from stage one into stage two (e.g. they have not found an effective way to manage stress).

By conceptualizing stress as a state of being, it effectively makes it far more difficult to manage stress and thus more difficult to progress to the next stage of the

ITCCA. When defined as a result of quantity, the individual knows exactly what they need to do in order to alleviate their stress; however, this does not mean that it is easy. For example, they may have three exams and a presentation next week. Therefore, once those assignments are completed, all of their related stress will be gone. In the meantime, in order to quell some of the stress associated with those exams, the individual knows that they should study and prepare as thoroughly as they possibly can.

In order to stay on top of things and save myself the stress later, about a week before a week where I know I have things piled on top of each other...I'll block some time out to get some studying done so I feel like I at least got started and aren't just wasting time (Jacob).

Conversely, as a state of being, there is no clear place to start. The solution for resolving a chronic sense of stress is far less straightforward and may result in dangerous levels of stress. Unlike the individual that knows their stress will fade after the exam, as a state of being stress continues to loom over the individual.

I think of stress as when you are I guess worried about things that are going to happen in the future and those things happening in the future cause you to feel uncomfortable about those outcomes of the events and you feel you have to be doing something about it right now (James).

The above definition is concerning because the “doing something about it right now” referred to studying for an upcoming exam. Undergraduates in today’s academic environment now equate their performance on a single exam with “things that are going to happen in the future.” Due to the belief that everything that one does during their undergraduate career will have lasting effects on one’s future success creates the

dangerous ‘stress as a state of being’ phenomenon observed in a number of undergraduate participants. “I definitely didn’t know how differently the exams were weighted [in college] as opposed to high school. Like a B- on an exam in high school didn’t mean much but in college that can really kill you” (Adam). While a B- may impact a GPA, undergraduates, including Adam, need to understand that in the grand scheme of things a B- may not have the dramatic life-altering effects that many seem to believe that it does.

By educating individuals on the actual physical and mental consequences of stress, whether they undergo that training in middle school, high school or college (to be discussed further in the timing section), it is possible to alter the impact that stress can have on those individuals. In her Ted Talk titled “How to make stress your friend” Kelly McGonigal (2013) explains, “When you change your mind about stress, you can change your body’s response to stress.” By reframing your stress response as an extra energy source that can be harnessed in order to be more productive/accomplish more, individuals can significantly reduce their ‘stress’ levels (McGonigal, 2013). The importance of an individual’s definition/perception of stress cannot be overstated. If individuals can effectively understand and rationalize their stress and use it in a positive manner, they can lower their stress levels and be more productive. The ‘positive use’ of stress does not mean that individuals have to define stress as ‘extra motivation to do work,’ but it does mean that individuals cannot view stress as paralyzing. One participant, while describing their experience of beginning to write a 10 page paper eight hours before it was due, said the following, “I was scrambling, I knew it wasn’t good and I was really concerned that I wouldn’t get it done so once I was there I was feeling adrenaline but not in a good way. I

was just paralyzed by fear and I couldn't write at all" (Claire). This particular participant went on to explain that she hoped that she could develop the ability to channel that adrenaline into a creative and well thought out paper. Kelly McGonigal would suggest that this is a very realistic and attainable goal. If this participant were able to develop the refined ability to re-frame her stress response as a motivator, she may have completed a quality paper with time to spare instead of submitting a sub-par paper five minutes before the deadline.

Reactions to Stress

Short of scheduling the interview immediately before a participant's exam, it was difficult to know what a participant's stress level would be at the time of the conversation. However, suggesting that an upcoming exam elicits the same amount of academic stress in everyone would be unfair (this became apparent during interviews as well). Therefore, in order to account for different definitions of stress and different stress thresholds among participants, the question was phrased in the following way; If you were under a considerable amount of stress right now, to what or whom would you turn to for comfort, help or guidance? By allowing participants to personally decide what "a considerable amount of stress" was, it was much easier to compare participants as opposed to if they were asked to, 'consider how you would feel if you had two exams tomorrow that you had yet to study for?' For some, maybe for an individual that does not place as much emphasis on grades, this may not be a high stress situation, while for others, this may be a real-life nightmare. By allowing participants to generate a hypothetical, high-stress scenario on the spot, the question generated genuine reactions

(participants had little time to think) and provided insight into how different individuals combat stress.

First responses to participants own high stress situations varied greatly. Generally, most responses can be grouped into two directly opposed categories, human and non-human outreach. For example, when asked the above question, the first group usually responded very quickly with a name, “I would definitely call my mom, she knows that I put a ton of pressure on myself and she just knows that to say” (Grace). These individuals mentioned parents, friends, old professors, and many also added qualifiers to their answer. For example, one participant chose to answer by explaining that her choice of who to call would vary depending on the source of the stress,

I would probably turn to those who know that area of my life best, like if I was stressed about family I would probably turn to my closest friends back home because they know what’s going on and there’s less to explain, they know my family. But with academic stuff, I go to my roommates; they are in the same boat they get it and most of the time they help a lot. I turn to those who know the most about the situation and the ones who are the most honest and won’t sugarcoat it (Anna).

When participants chose to name specific individuals that they would reach out to in a particularly stressful event, they oftentimes stressed the incredibly close relationship that they had with the individual. They did not say ‘I guess I would talk to my friends,’ they instead said,

I would immediately call my sister [name removed], she only just graduated last year and she helped me a lot to prepare for what college life was like and she’s

really been great when I just need someone to turn to. In a weird way going away to college has really brought us closer together (Elizabeth).

Answers to this hypothetical situation stressed the importance of maintaining strong relationships with individuals that you can reliably lean on for support. However, simply because reaching out to another human was not the first response of some participants, this does not mean that they do not have strong support groups as well. Although many of the participants that reported first responses that were ‘non-human’ also mentioned reaching out for human support eventually, their first/immediate reactions were as follows.

Many of the participants that reported non-human methods of initially dealing with high-stress situations mentioned, in one form or another, exercise. Answers included running, lifting weights, going for a walk, playing basketball (both with friends and alone) and riding a bike (two participants also answered with “take a nap” which some may consider just as helpful as exercise). The large amount of answers regarding exercise may be a result of the culture of the university at which this research project was conducted. This particular university has an incredibly active culture and also holds personal appearance/image in very high regard. As a result of that culture, students often exercise regularly and they may believe that exercising when they feel stressed is a perfect way to both alleviate some of that stress and comply with the cultural norms of their environment. This behavior coincides with the theory of selective exposure/confirmation bias. At this particular institution, the prevailing norm is that you should try to not let others know that you are stressed. “I try to vent to friends as little as possible. I just don’t want to bother them and they may just like start to think differently

of me” (Riley). Therefore, instead of venting to roommates or sulking in one’s room (or even picking up the phone and calling for help, someone might hear them), many students will turn to exercise, an act that is respected on this particular campus where physical appearance is incredibly important. If an undergraduate sees his or her fellow classmates going to the gym when they are stressed instead of coping in other ways, in accordance with the theory of selective exposure, they will engage in similar behavior. However, what these individuals may fail to realize is that the first group, the group that initially opted for human-involved coping strategies, deals with their stress in a different way; a way that may also benefit them as well if they were to try it. This is not to suggest that students who resorted to exercise never reach out for help, but interviews revealed that generally, participants who were comfortable reaching out for human support initially, reported lower levels of stress. If undergraduates continue to fall prey to the temptations that selective exposure creates (e.g. creating a false belief that everyone is stress free), it is highly likely that many unproductive coping mechanisms will remain in play. Many of the students that mentioned exercise as a preferred coping mechanism also mentioned that they use music as a tool to calm or focus their energy (some participants mentioned music first).

When participants mentioned music as a method of stress relief, they often provided a specific genre or artist that they listen to. One participant went as far as to say,

I listen to a ton of music and this is really weird but when I was learning how to code, which was super stressful, it was right when “4 Your Eyez Only” by J. Cole had just come out and I listened to it on repeat. So now whenever I’m stressed, I

listen to it on repeat until I can calm down a little and kind of figure out what my next move is (Jacob).

While the above quote represents a particularly specific taste in music, many other participants left it at genres such as R&B, 'tropical house,' pop and one participant, Sophia, stated that they, "have a weird obsession with listening to movie and video game soundtracks" (Additional research conducted after the interview can confirm that Spotify has a massive number of movie/video game soundtracks available). Overall, even though the participants mentioned above chose to seek non-human methods to combat their stress, many of them subsequently mentioned an individual or two later in the conversation that they would reach out to if the situation were to progress. Essentially, the results from the original question solidified the idea that individuals do not use coping mechanisms in isolation. Just because certain individuals may appreciate 'alone time' before they deal with the issue causing their stress, this does not mean that they never reach out for help. However, as a number of the subsequent sections will discuss, it is important for an individual's overall academic stress level that they have certain individuals or a group of individuals that they can turn to for comfort or support.

Timing

Timing refers to the period in a student's life during which they were first exposed to the discussion of stress and the potentially devastating effects that it can have on the individual both mentally and physically. In short, this section will rely heavily on the work of Zajonc (1968) and the mere exposure hypothesis. By exposing students to the effects of stress, the potential dangers of stress, and ways to alleviate/cope with that stress as early as possible, the mere exposure hypothesis suggests that they will view

these precautions and positive coping strategies ‘favorably.’ In this case, viewing these strategies favorably means that once they get to college, they will implement them in their everyday life regardless of if they fit into the culturally accepted way of life at the individual’s undergraduate institution. However, if this training is not provided, whether it be at the middle school level, high school level, in an introductory college course, or in a discussion with someone who attended college, the individual is far more likely to cope/deal with stress however they interpret other people dealing with it (selective exposure) once they arrive at college; this phenomenon was identified through participant interviews. This finding should make sense when once again, considering Kim’s ITCCA. In order to attempt to move through the stages and achieve a level of cultural assimilation, without a strong foundation backing certain beliefs and behaviors, the individual will easily adopt whatever the culturally prominent beliefs are within society in order to expedite the assimilation process.

Participants were asked the following question in order to gauge their experience with the educational side of academic stress; before you entered college, what did you know about stress, dealing with stress, and ways to cope with stress? Out of the 16 participant interviews conducted, 13 of them mentioned that they had some idea of what college life would be like. However, of those 13 participants, only four of them mentioned that they received this information in a formal manner. One participant (Elizabeth) explained that her high school opted for a “college prep type class” as opposed to the traditional homeroom. During this time, people could voice any concerns they had either about the application process or what college life in general would be like. While a number of participants mentioned that they had a college counselor only three

stated that this individual provided them with any significant knowledge that would prove to be helpful when they got into college. One participant, Jacob, said that,

We just had these informal meetings, not always on a productive subject but we just developed a really good relationship and it got to the point where I felt I could ask her anything, so I did. I was really concerned about how students balanced going out and drinking and then getting their work done.

The other two students also mentioned counselors that were incredibly open, honest and inviting. “Because my high school was tough to get into, they expected us to be able to do the school part, counselors in my high school were there to help us with the non-school stuff associated with college” (James). While the previous statement is valid, a superior level of intellect can alleviate some of the academic stress associated with college, it is naïve to separate the two (academic stress/general stress) into completely different realms. If a student cannot deal with the non-academic stressors of college, it is not unreasonable to assume that eventually that stress will find a way to manifest itself academically as well.

I didn’t have a ton of academic stress in high school, it was mostly just about choosing a college but in high school the work was a lot more mundane...but I knew in college it would be a lot more stressful you always see college kids in the library and there’s just a lot more to deal with in college (Adam).

The second half of that statement, “there’s just a lot more to deal with in college,” signifies that the boundaries between academic stress and general stress are blurred once one gets to college. Previously (unless they attended a boarding school), one would deal with the academic stress of high school and then go home and be able to escape it, to a

certain extent, while then assuming the non-academic stress that was associated with their home life. In college, there is not as much room to ‘escape.’ If you fail an exam or do poorly on a paper, you do not escape back to your house, you walk a couple of yards from the academic building back to your dorm. Separating the sources of stress becomes exponentially harder once one enters college only further emphasizing the need for effective training on the matter.

13 of the 16 participants that reported that they had some idea of what the stressors of college would look like; only four of those were a result of a semi-formal/formal training process/presentation. The other 9 respondents reported that they received this information from an individual that had previous experience with college life. The most frequent responses included informal conversations with high school teachers, parents that attended college, and siblings that were either in college at the time or had already graduated. “I talked to my brother a lot, he transferred colleges so he dealt with a ton of stress. He didn’t really like to talk about all of it but I felt pretty comfortable asking him about what things were like [at college]” (Jacob). After analyzing some of these informal discussions, it became apparent that a greater emphasis was placed on the good as opposed to the bad. The same participant quoted above, Jacob, went on to say that, “he was always going out at school so he never really seemed to have that much of a problem with academic stress.” This is a common misconception that can clearly occur during these informal conversations as well as once an individual arrives at college. Simply because someone ‘goes out’ a lot, this does not mean that they are not dealing with a significant amount of stress at the same time (e.g. it may be a destructive coping mechanism). Due to selective attention and the fact that it is

impossible to know how others are feeling at all times, individuals can develop false beliefs about the mental state of their peers. In these informal conversations, it seems as though there is a tendency to glorify college while not really explaining some of the more sobering details of what life is actually like. For example, if your younger sister is excited about leaving for college and you, a recent graduate of the same school, had a miserable college experience, you are not going to say, 'don't go, that school is miserable, the people cause drama, the grading structure is incredibly difficult and oh, by the way, you will have to study for like three exams a week,' rather, your goodbye sentiment will probably be one formulation of the following, 'hey, good luck, I'm sure you'll do great and have a great time there, it's the best four years of your life!' After playing out the above scenario in your head, the advantages of formal training on the academic and social stressors of college become incredibly clear. By providing realistic and honest examples of what students can expect to encounter once they arrive as first-year undergraduates, they can hopefully find productive ways to manage these situations; this may include the implementation of various organizational strategies (e.g. using a planner) or finding those few key individuals that they can rely on for support.

Increasing the exposure and formality of these conversations can also allow students to benefit from the additional practice time before they get to college (mere exposure hypothesis). If they learn about the various strategies that they can employ in order to help them combat stress in college, they can tweak and perfect them throughout high school in order to have them (hopefully) perfected by the time they enter college. The benefit of the mere exposure hypothesis is also relevant as students enter college, due to their repeated exposure to the various techniques, they will be more likely to continue to

use them as opposed to falling prey to doing whatever everyone else is doing. Overall, according to participant interviews and generally speaking, the earlier and more formally that an individual is exposed to the various stressors associated with college, the more likely they are to manage them effectively as undergraduates.

Organizational Strategies

The implementation of organizational strategies as a way to combat stress works hand in hand with defining stress as a result of quantity; the definition that allows individuals to alleviate their stress far easier than if they were to view their stress as a state of being. The individuals that defined stress as a result of quantity oftentimes had a number of different organizational strategies that they used, whether on a daily or weekly basis, in order to stay organized with the hopes of limiting the amount of academic stress that they encountered.

One of the most common strategies that current undergraduates use to combat stress is some type of daily planner. Participants reported using a number of different types of both electronic planners (e.g. Google Calendar/ iPhone reminders) and traditional, tangible daily agendas. One participant, Jack, went as far as to say that,

As soon as I learn about an assignment, whether it's by looking at the syllabus randomly or if a professor says something in class, the first thing I do is write the due date on the day in my agenda. The last thing I want to do is have something sneak up on me when I had no idea it was even due, that causes me so much stress.

In addition to the daily planner/agenda, participants oftentimes reported that they had some type of other additional or supplemental organizational strategy. Some participants

reported that they maintain a dry-erase white board with all pertinent and high-priority assignments while others mentioned the use of the “stickies” application on Apple laptops. This application allows users to put virtual sticky notes on their laptop as reminders. Overall, the point is that it seems as though the undergraduates that are the most effective at limiting their academic stress (as a result of quantity) are the ones that can effectively leverage the organizational strategies that work best for them.

It is important to note that not every individual can or should use the same organizational strategy in the same way. It is critical that individuals find what works best for them and then continue to tweak and alter the strategy in order to make it as effective as possible. A number of participants, in addition to explaining what strategies they used, offered their opinion about the use of organizational strategies; “I feel like I’ve been told to do so many things that I just don’t know what works best anymore” (Grace). A second participant, Olivia, also added the following, “I used to be so meticulous about notes that I would write so many that things would get so cluttered and I couldn’t even find which notes that I was supposed to look at.” The above quotes serve to explain that there is no one-size-fits-all solution to solve academic stress. Additionally, Olivia went on to suggest that the use of all of these organizational strategies could sometimes lead to additional, unforeseen stress.

I used to try to plan out my schedule week by week, you know when I would work on certain assignments in order to get everything done but it was wildly unsuccessful. But as I continued to do that, I realized that you never really got done what you wanted to and I found that super de-motivating because you think

you failed to get everything done when in reality you probably got enough done and were just over-ambitious to begin with.

The purpose of this section is not to outline the multitude of strategies the today's undergraduates employ with the hopes of reducing their stress levels. Rather, the point is to understand the underlying reason for their effectiveness. Essentially, the purpose of organizational strategies is to prevent exams, projects and other important assignments from 'sneaking up' on students. If a student knows that an exam is coming up, they can adequately prepare themselves and set aside a sufficient amount of time to study for that exam. However, if a student doesn't realize that an exam is approaching until three or four days before, they may not have the luxury of setting aside whatever amount of time they feel is sufficient to prepare themselves for the exam (e.g. they may have other assignments that need to be done in that four day span). When an exam sneaks up on a student it is easy to imagine how this could result in a 'stress as a result of quantity' response. If a student finds that assignments often sneak up on them when they are not prepared, it is reasonable to believe that their definition of stress could transform into 'stress as a state of being.' If the above transformation does occur, it can result in a dangerous cycle that leaves students, as one participant, Claire, called it, "in a self-perpetuating cycle that leaves me mad at myself for not seeing this coming, me being mad at myself for not preparing as well as I could have and then me being mad at myself for not performing."

Support Group

An abundance of research suggests that individuals can come together, in various capacities and settings, to serve as support for an individual during times of need and

effectively lower the individual's general stress level (e.g. Kahn et. al.,2015; MacGeorge, Samter & Gillihan, 2005; McKinley, 2013; Miczo, Miczo & Johnson, 2006; Pauley & Hesse, 2009; Wright, 2012; Wright, King & Rosenberg, 2014; Yildirim, Karaca, Cangur, Acikgoz, & Akkus, 2017). As was mentioned earlier in the analysis, individuals oftentimes seek support from specific individuals when the stress is coming from a specific source (e.g. talking to a friend for relationship advice and a parent for academic/career advice). Participant interviews were congruent with the above literature as they suggested that individuals that relied on their particular support group for comfort during times of stress reported that they felt they handled stress better than their peers.

In accordance with Kim's ITCCA, a strong support group seems to help undergraduates progress through the second stage of the process. In order to explain how her support group helped her achieve the level of comfort and cultural fit that Kim (2001) described, one participant (Amanda) said the following,

Prior to college I was more of an internal person. I didn't really talk about [stress] so maybe college helps you understand the importance of being transparent and having that support group to share that stress with so you don't have to feel like it's a one-man fight.

As subsequent participants confirmed this sentiment, it became clear that in order for participants to feel as though they were on the less stressed side of the spectrum (based off of interview question 6 in Appendix A) they needed to have at least a small informal network for support. Those that placed themselves at the more stressed end, those that tended to not leverage support networks as effectively, oftentimes gave some formulation of the following; "I'll only reach out if I absolutely need to, I want to handle it myself,

I'll only reach out if I need my thoughts validated but not really for support" (Olivia) or "I don't really reach out because for me, I don't see how talking about it makes anything better or makes it go away, I just need to work to make the feeling go away" (Emma). Overall, although there are differing attitudes towards reaching out to a support group, the group that viewed this behavior favorably repeatedly reported less stress than their peers.

In addition to informal support groups, a number of participants mentioned receiving formal support in the form of a therapist or other mental health professional. "I have worked on channeling and eliminating my stress and anxiety for years by working with a therapist" (Olivia). A second participant, Sophia, mentioned the resources that are made available to students through the particular university at which this study was conducted. For example, after visiting what this particular university calls the "Office of Health Promotion" (OHP), the staff suggested that they download an application called "Simple Habit" (Simple Habit-Meditation, 2017). This application focuses on trying to get individuals to meditate for "just 5 minutes per day to reduce stress, improve focus, sleep better, relax faster, breathe easier, and more" (2017). After further researching the role of an 'Office of Health Promotion,' it became clear that their aim is to maintain the whole person from both a physical and mental health perspective. They hold events that stress the importance of eating healthy, developing healthy study habits and also offer counseling services for a number of different circumstances. However, if the stigma surrounding help-seeking activities is not eliminated, fantastic resources such as this one may not be able to be as effective as they should be due to students succumbing to overwhelming societal pressure.

Peer Opinions

To this point, various elements have been discussed that have an influence on how undergraduates deal with stress and its effects. However, after analyzing all participant interviews, it seems as though the opinion of one's peers has the most dramatic effect on how individuals choose to deal with stress. The theory of selective exposure highlights why this may be the case. As individuals progress through the stages of the ITCCA, along the way they pick up on subtle cues and behaviors that their friends and the rest of the individuals that make up the university environment consider acceptable and favorable. At the beginning of their undergraduate career, they need to develop a new identity as an individual at this new institution. Included within that identity is how they will handle their academics (e.g. how much will they study, what grades are acceptable to them, how will they deal with the stress associated with their academics). Participant interviews suggest that they will construct this identity by seeing what they want to see from those around them. In other words, they will make decisions about who they want to be or who they want to appear to be, and then find other individuals whose actions align with those beliefs to justify their decision (selective exposure). The following are a number of the statements that support the above conclusion; "I write notes like a crazy person, my roommates always joke about it" (Olivia). This participant, Olivia, has clearly picked up on the norms surrounding organizational strategies within their university but has chosen to defy them anyway. Although it is great that they continue to use the strategies that work for them, they should not have to acknowledge the inherent 'craziness' of the behavior or resort to self-deprecating humor to explain it. "You want to be known as someone who gets good grades and works hard, I want to maintain that

reputation, it's important to me" (Grace). The previous statement clearly demonstrates an understanding of the prevailing norms associated with academic performance. It is important to note that this participant did not say 'I want to get good grades and work hard.' They instead chose to focus on how they will be perceived by their peers, further demonstrating how much influence peer opinion has the behavior of college undergraduates. The point is not to tell every undergraduate to ignore what their friends say, this would simply be unrealistic, the point is that there needs to be some form of a paradigm shift. Until students can construct their own identity without at the same time worrying about how they will be perceived by their peers, they will not be able to fully assimilate and feel comfortable in their new environment.

If students chose to neglect sharing their feelings with close friends for fear of 'bothering them with my problems,' that would be one thing. However, a number of participants explained that they take active measures to keep some of these feelings and behaviors hidden from their friends. Choosing not to share thoughts and making an active and effortful attempt to hide them are two vastly different things; the first may be a personal choice but the second one can have dramatic consequences. "I hide my stress but I know that internally I have a ton of stress" (James).

At its worst, I just want to be alone, when I leave the room to work somewhere nobody can actually see how much work I do or how hard I'm working or how like stressed I actually look while doing work. My direct roommate was super smart and we had the same major but she was super overly type A and I couldn't deal with all of that so when she would study in the room I would have to leave because I always felt that she would judge me and I couldn't handle that (Sarah).

The extreme sense of competition outlined above, while a healthy level can be beneficial, can create a dangerous environment where students are forced to manufacture appearances in order to maintain a certain social status.

Brief Summary of Findings

The above findings were discussed in six separate sections, definitions of stress, reactions to stress, timing, organizational strategies, support group and peer opinions. Although they were discussed in isolation, it is the conclusion of this research that those factors combine to create a stress profile for each individual undergraduate. The particular definition of stress that an individual chooses to take has a direct impact on how easy/hard it will be to manage their academic stress. Individual's reactions to stress directly affect whether they effectively deal with stress (e.g. by talking to someone) or if their stress is left to ruminate (Vanderhasselt, Brose, Koster & De Raedt, 2016). The timing, referring to the time period during which an individual is taught how to deal with stress productively, dramatically impacts their ability to handle stress as first-year undergraduates. Students have a number of organizational strategies at their disposal to help manage their stress, particularly if they defined stress as a result of quantity. Support groups can be incredibly helpful as long as individuals feel comfortable enough to sincerely reach out to them and finally, peer opinions have a serious impact on how individuals choose to outwardly show their stress and subsequently, how well they deal with it.

Chapter 6: Discussion and Conclusion

The claim that today's undergraduates are experiencing incredibly high amounts of stress cannot be refuted. (Ross, Neibling & Heckert, 1999). Therefore, in order to fully understand the issue at hand, it is important to understand it from both a quantitative and qualitative standpoint. Until now, the research surrounding stress in an academic setting has been largely quantitative (Ross, Neibling & Heckert 2008; MacGeorge, Samter & Gilihan, 2005; Misra, McKean, West, & Russo, 2000). While this is important for demonstrating that an issue exists, it does little in the way of finding a solution. The purpose of this research was not to solve the stress epidemic plaguing undergraduates across the country; rather, the goal was to gain a better understanding of the issue at hand so that further research could identify the most effective course of action.

The above research was centered on the following central questions. How does a college student's definition of stress impact their conception of their academic stress? What strategies do current college students use to prevent stress? How do current stress prevention techniques alter college student's perception of stress? After participant interviews were conducted and the data was analyzed, it became incredibly difficult to respond to these questions in isolation. The above questions are heavily dependent on one another and all relate to the six key elements that serve to make up an individual's 'stress profile.' Nonetheless, the data collected during the course of this research only further substantiated the claims made by the numerous studies that suggested that a stress epidemic is plaguing American undergraduates.

The elements outlined above, definitions of stress, reactions to stress, timing, organizational strategies, support groups and peer opinions, all combine to influence how

an individual deals with stress. The aforementioned elements can prove to be beneficial to organizations and administrators that are involved in the development of programs that are designed and offered to help first-year students adjust to a new college environment with new, higher academic expectations. By targeting one or more of these areas, programs can attempt to intervene and aid in the stress-coping process. A number of elements outlined in the analysis pointed to the fact that education and reinforcement have been shown to significantly aid students when it comes to dealing with stress. If a program were designed that not only provided students with productive coping strategies, but also emphasized how stress is something that everyone experiences and chooses to deal with it in different ways, that program could potentially have dramatic and lasting positive effects.

When dealing with a topic such as academic stress, a topic that can have both a serious mental and physical impact, the importance of the issue cannot be overstated. This was not just another study about undergraduate study habits and their subsequent academic performance/exam scores, although the link to undergraduate academic performance and stress has been confirmed (MacGeorge, Samter & Gilihan, 2005). While it would be fair to argue that GPA and academic performance are important and may correlate to future success, it would be irresponsible to say that they are more important than physical and mental well being. Although this study was conducted using a small number of participants at a highly rigorous academic institution, the results cannot and should not be ignored.

Many of the conclusions drawn in this study were done so in an overarching or broad manner (e.g. it is important for undergraduates to learn about stress early in their

academic careers). Thus, the question of ‘what to do next’ is an important one to ask. A number of the following strategies may be easier to implement at the college level due to the fact that a number of universities have entire offices dedicated to students’ ‘first year experience.’ However, ideally, these practices would be incorporated at the high school and even middle school level. The simple answer to the ‘what to do next’ question is educate. Students need to be educated on the matter in order to improve. Whether that education comes in the form of a homeroom period focused on the rigors of college life as Elizabeth suggested, or in the form of informal meetings with a college counselor as Jacob suggested, the point is that students will arrive as undergraduates better prepared. Once at college, targeted and mandatory orientation-type classes could serve to prepare individuals not only for the traditional stressors of college, but the additional stressors that are specific to the culture and environment of that particular university. Finally, as more research continues to come out about the importance of mental health (e.g. Kahn et al., 2015), universities should take notice and increase the number of resources available to students. For example, this could take the form of hiring more certified counselors, organizing stress relief and awareness events on campus or even periodically sending students the current research surrounding academic stress and its effects. Overall, instead of focusing on programs that only seek to prepare students academically for college, while these are important as well, high schools and colleges alike need to focus on preparing the individual to deal with an abundance of intense and potentially dangerous stressors.

In order to confidently and efficiently curb the stress epidemic present across colleges and universities, more research needs to be done. While this research sought to

deeply understand the problem, the same level of analysis needs to be done in order to determine what the best methods are for educating students. Once this has been done, it will be far easier for high schools/universities to put the proper programs in place in order for their students to succeed academically, socially, and mentally (maintain good mental health).

Why should we care? 'Everyone deals with stress it is not that big of a deal.' Opinions such as the previous statement are toxic and are becoming far too common in today's world. Although grades are important, the unfortunate reality seems to be that undergraduates have sacrificed their health and happiness in order to feed their grade obsession and that is simply unacceptable. By developing positive coping strategies, organizational strategies, and strong support groups, it is incredibly possible that undergraduates can find success academically while not sacrificing their health and happiness. We are on this Earth to be more than grade-crazed undergraduates. However, unless we can find a way to mitigate the intolerable levels of academic stress present in the current undergraduate environment, colleges and universities will continue to be filled with unhappy, unhealthy and overly stressed individuals.

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Appendix A: Interview Guide

1. In your own words, please define stress.
2. What organizational strategies do you use to combat stress and how, if at all, have they worked?
3. Before you entered college, what did you know about stress, dealing with stress, and ways to cope with it?
4. What are some strategies that you may implement in advance to avoid stress/stressful situations?
5. What do you believe causes you stress in certain academic situations (i.e. deadlines, quantity of work, relevance to grade)?
6. Compared to your peers, how do you feel that you deal with academic stress?
7. If you were under a considerable amount of stress right now, to what or whom would you turn to for comfort, help or guidance?