THESIS

PREDICTING ADJUSTMENT TO COLLEGE:

THE ROLE OF PROTECTIVE FACTORS

Submitted by

Nicole Olivas

Department of Psychology

In partial fulfillment of the requirements

For the Degree of Master of Science

Colorado State University

Fort Collins, Colorado

Spring 2017

Master's Committee

Advisor: Evelinn Borrayo
Co-Advisor: Karla Gingerich

Tracy Richards
Toni Zimmerman

ABSTRACT

PREDICTING ADJUSTMENT TO COLLEGE:
THE ROLE OF PROTECTIVE FACTORS

A number of empirical studies have assessed successful college adjustment despite prior adversity, in order to understand how individuals who have experienced adversity adjust. In contrast to existent research, the present study aims to evaluate the general adjustment process during the first semester of college, while controlling for prior adversity, to determine which factors serve to enhance the likelihood of successful adjustment to the college environment. In addition, minimal research has been conducted on gender differences in protective factors. The present study aims to further understand whether a difference exists between men and women in protective factors associated with successful college adjustment. This study found that higher levels of self-esteem significantly predicted positive social adjustment to the college environment. Higher levels of self-esteem, quality education, and greater coping skills significantly predicted positive emotional adjustment. Further, greater levels of intelligence and quality education significantly predicted positive academic adjustment. Comparisons between men and women regarding different protective factors revealed that men reported a higher self-perception of personal talent than women. These findings have implications for designing effective orientation and transition programs that foster successful adjustment in first-year college students.

TABLE OF CONTENTS

CHAPTER I

Introduction

Successful adjustment of students to the college environment is of great importance to a range of individuals, including college students striving to succeed, college administrators who are concerned with retention rates, and mental health professionals who help students overcome challenges in emotional, social, and academic adjustment. Student adjustment to college has been a topic of increasing interest since first appearing in academic journals in the 1940s. One of the greatest concerns associated with college adjustment is understanding what factors cause attrition and what factors increase retention. Approximately 40% of college students leave higher education without acquiring a degree (DeBerard, Spielmans, & Julka, 2004; Welles, 2012); 75% of those students drop out of college within their first two years (DeBerard et al., 2004; Hamilton & Hamilton, 2006). In addition, first year college students display higher attrition rates compared to more advanced students, with an estimated 20-30% of students dropping out in their first year (Chu, 2016, DeBerard et al., 2004; National Student Clearinghouse Research Center, 2016). Examining factors that aid students' success in adjusting to college may increase understanding of what is needed to improve retention rates. The purpose of the present study is to investigate which protective factors, factors that support successful adjustment, are predictive of college success, as defined by a student's social, emotional, and academic adjustment to college, during an individual's first semester of their first year.

Defining Resilience in Relation to College Adjustment

For over fifty years, researchers have examined how individuals faced with significant challenges are able to make successful life transitions. The term "resilience" has emerged from

such research and is defined by Masten (2013) as, "the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability, or development" (p. 581). The development of the concept of resilience has generated interest in understanding and assessing particular characteristics and factors that predict a higher probability of positive outcomes particularly in the context of adversity. Such qualities are termed protective factors, protecting against risk and negative outcomes (Masten, 2013; Werner & Smith, 1992). Specifically, researchers have been interested in understanding the protective forces that differentiate individuals with healthy patterns of adjustment from those who fare less well (Luthar, Cicchetti, & Becker, 2000; Masten, 2013; Werner & Smith, 1992).

Masten (2013) differentiates between different types of resilient experiences, including positive adjustment and maintenance of success despite stressful situations and experiences. In relation to college adjustment, the ability to successfully adjust during one's transition into college, despite a range of personal, emotional, social, and academic stressors and challenges would be considered a form of resilience.

Research on resilience has found it to be a rather common experience that occurs more frequently than not, due to basic normative functions of human adjustment (Masten, 2013). Masten (2001) discusses the "ordinariness" of resilience, in that perceived threats or stressors to human development and adjustment engage protective systems to overcome such challenges. As a result, resilience research allows for a focus on the strengths and protective characteristics an individual possesses as opposed to risk factors or maladaptive tendencies of an individual. Resilience is also seen as a dynamic process (Luthar et al., 2000; Masten, 2013). Research on resilience provides an understanding of what processes lead to positive or successful outcomes, and suggests that an individual can demonstrate successful adjustment in one capacity, while

adjusting less well in other domains. Related to college adjustment, college success is best considered multifaceted, involving emotional adjustment, social adjustment, and academic adjustment. Therefore, an individual may demonstrate successful adjustment (i.e., resilience) in the emotional and social domains, while adjusting less well in relation to academics.

College Adjustment as a Stressful Transition

The first year in college is a stressful transition for emerging adults who are faced with a plethora of emotional, social, and academic stressors, adjustment to a new identity, and newfound independence (Arnett, 2013; DeBerard et al., 2004). While some students are able to adjust effectively, others find the demands of being a college student to be overwhelming and insurmountable (Dyson & Renk, 2006). The move to a college environment is often the beginning of a student's transition from adolescence to emerging adulthood (Arnett, 2013). Individuals in this life stage are currently exploring their identity and therefore do not have a personal view of themselves as either an adolescent or an adult (Arnett, 2013; Dyson & Renk, 2006). As a result, emerging adults in this developmental stage tend to take on a variety of roles to explore and further solidify their identity. Individuals often choose to shape both their identity and their environment in order to best suit personal needs, goals, and psychological well-being.

The stressors and unfamiliarity of the college lifestyle can result in a number of challenges during this transition. Such difficulties include challenges to personal security and self-esteem (Hurst, Baranik, & Daniel, 2013), a yearning for acceptance, a need for comfort (Blimling & Miltenberg, 1990; Chu, 2016; Dyson & Renk, 2006), increased loneliness and social anxiety (Larose & Boivin, 1998; Nordstrom, Goguen, & Hiester, 2014), and decreases in one's perceived social support network (Beck, Taylor, & Robbins, 2003; Chao, 2012). When faced with these unfamiliar demands and challenges, college students are required to find a way to

manage and successfully adjust to their surrounding environment. Therefore, these factors all have a hand in making one's adjustment to the college environment more stressful and difficult. Studies by Dyson and Renk (2006) and Hurst et al. (2013) found that the stress associated with this transition results in significant increases in first year students' psychological disturbance, depression, and absent-mindedness.

Given that studies have shown that the stress related to the university setting negatively influences the ability to perform well and successfully transition, it is important to understand protective factors that may increase the likelihood of positive adjustment to this environment. Understanding what factors separate students who persist into the second year from those who drop out is essential. Do students that prevail and successfully adjust to college possess different characteristics than those who do not? In order to understand the differences between those who succeed despite the challenge and those who decide to leave college, a number of studies have examined protective factors that increase one's ability to make a successful adjustment to college.

Protective Factors

General protective factors

The attention given to resilience research has resulted in some major shifts in fields related to prevention and treatment. Resilience promotion programs utilize the individual's personal strengths and other family and community resources that serve as protective factors available to the individual (Masten, 2013). The focus is on using harm and stress reduction by strengthening protective factors. Protective factors serve as strategies that restore efficacy of adaptational systems, allowing individuals who possess such factors to be more likely to overcome adversity (Masten, 2013; Mohr & Rosén, 2012).

Protective factors have been identified in multiple contexts, including individual, familial, and extrafamilial or community factors (Blum, McNeely, & Nonnemaker, 2002; Masten, 2013). Individual protective factors are qualities that exist within the individual that aid in successful transition to unfamiliar environments, particularly when the individual faces adversity while making this adjustment. A number of individual characteristics have repeatedly been found to act as protective factors, including: high levels of cognitive functioning (i.e., problem solving skills), easygoing temperament, positive self-concept, high self-esteem, and motivation to succeed (Beck et al., 2003; Galatzer-Levy, Burton, & Bonanno, 2012; Luthar et al., 2000; Masten, 2013). Other characteristics that serve an individual protective function include emotional intelligence or regulation (Galatzer-Levy et al., 2012; Luthans, Vogelgesang, & Lester, 2006; Masten, 2013), higher educational attainment (Benzies & Mychasiuk, 2009; Masten, 2013; Newcomb & Bentler, 1987), high religiosity (Jackson, Sher, & Park, 2005; Masten, 2013), and having talents (Masten, 2013). Luthans and colleagues (2006), as well as Masten (2013), have noted that core individual protective factors also comprise self-efficacy, optimism about present and future success, perseverance, a sense of hope, and flexibility toward changing demands and new experiences.

In relation to familial protective factors, Amatea, Smith-Adcock, and Villares (2006) have developed a family resilience perspective that identifies family resources that aid in one's ability to overcome life challenges or stressors. The researchers developed this perspective through four different facets of family resources: beliefs and expectations, emotional connectedness, organizational patterns (e.g., familial expectations and responsibilities), and learning opportunities. Individuals who grow up in a family environment that contain these qualities are more likely to develop these traits, and be encouraged to do so (Black & Lobo,

2008; Masten, 2013). Family beliefs and expectations can serve as protective factors through a sense of purpose, positive outlook, and a sense of efficacy. Amatea and colleagues (2006) define a sense of purpose through a family's focus on setting goals, encouragement toward success, ability to learn from mistakes and failures, and demonstration of parental involvement and commitment. A positive outlook is established through confidence in the ability to overcome adversity, parental support, and an emphasis on fostering personal strengths. In this family framework, self-efficacy is viewed as perseverance in overcoming challenges and confidence in one's ability to learn and grow. Emotional connectedness as a protective factor in the family resilience perspective incorporates emotional warmth and caring, parental involvement and connections, clear and open communication, and collaborative problem-solving (Amatea, Smith-Adcock, & Villares, 2006; Masten, 2013). Family organizational patterns act as a protective factor through clear familial expectations and responsibilities, positive and supportive parenting practices, financial stability, and social support from kin. Finally, Amatea et al. (2006) describe family learning opportunities as a protective factor in families that engage in enriching learning activities (e.g., skill instruction, giving feedback to children, monitoring school performance).

The community or extrafamilial context is the third and final context in which protective factors are considered. Several empirical studies have found access to quality education and positive school environments to be protective (Luthar et al., 2000; Masten, 2013; Masten, 2001; Woolley & Grogan-Kaylor, 2006). Other factors in this context that have been found to serve a protective function include involvement in prosocial organizations (Galatzer-Levy et al., 2012; Masten, 2013), positive peer influences and connections (Woolley & Grogan-Kaylor, 2006), and connections with prosocial adults outside of the family context (Masten, 2013; Mohr & Rosén, 2016).

Gender Differences in Protective Factors

Gender socialization is the process by which children are taught how to behave socially in accordance with culturally constructed views of gender (Kretchmar, 2009; Lindsey, 2015). As such, males and females are expected to behave in certain ways that are socialized throughout development. Gender socialization can be explained via social learning theory and gender schema theory (Kretchmar, 2009). According to social learning theory, children are both reinforced and punished for gender appropriate and gender inappropriate behaviors (Kretchmar, 2009; Lindsey, 2015). The behaviors a child adopts are learned through social observation and imitation, for example seeing how gender is communicated and displayed through parental figures. Gender schema theory is related to cognitive development. As children learn to distinguish between men and women as communicated by their culture, they begin to use gender to process information about the world (Kretchmar, 2009; Lindsey, 2015). Over time, gender schemas allow children to organize information and maintain behaviors that are consistent and/or predictable for their gender (Lindsey, 2015).

Through gender socialization, girls begin to view themselves as a relational entity (Kretchmar, 2009). Girls explore who they are in relation to others, seeking connections with parental figures and prosocial adults outside of the family (Lindsey, 2015). As a result, girls develop stronger communication skills, a positive sense of self (i.e., self-image and self-esteem), and a tendency toward prosocial, empathic interpersonal relationships (Antonucci & Akiyama, 1987; Eagly, 2013; Sun & Stewart, 2007). However, men are socialized to value greater independence (Eagly, 2013). As such, men develop a tendency toward competition, task-oriented problem solving, and less help-seeking behaviors (Antonucci & Akiyama, 1987; Eagly, 2013; Kretchmar, 2009; Lindsey, 2015; Sun & Stewart, 2007).

Many researchers support the notion that protective factors associated with resilience are different between men and women due to the varied composition and function of their social behaviors. Specifically, research suggests familial and extrafamilial protective factors are associated with successful adjustment in women, while individual protective factors are related to positive adjustment in men (Chandy, Blum & Resnick, 1996). However, this research is not conclusive, as women still benefit from individual protective factors and men also benefit from familial and extrafamilial protective factors.

Research conducted by Hartman and colleagues (2008) further explored gender differences in protective factors. Findings from this study also suggested that men and women benefit from different protective factors during transition periods. However, the researchers primarily found what protective factors predicted resilience in women, without revealing any significant protective factors for men. For instance, religiosity and quality education are protective factors more commonly associated with success in women (Hartman, Turner, Daigle, Exum, & Cullen, 2008). Gender differences were also found in the significance of social support on resiliency, with women benefitting more from social support than men (Antonucci & Akiyama, 1987; Butler, Giordano, & Neren, 1985; Eagly, 2013; Friborg, Hjemdal, Rosenvinge, Martinussen, 2003; Hartman et al., 2008). Hartman and colleagues (2008) also found that self-esteem serves as a significant protective factor associated with positive adjustment in women more than men. While some differences are found, these findings tend to suggest that the impact of different protective factors is rather general, as opposed to gender-specific. Therefore, the present study aimed to continue to develop this research topic to better understand gender differences in protective factors, specifically in the college environment.

Protective Factors for Dealing with the Stress of College Adjustment

A number of prior empirical studies have assessed successful college adjustment despite prior adversity to better understand how individuals who have experienced adversity are able to adjust (Cantor & Banyard, 2004; Duncan, 2000; Maples, Park, Nolen, & Rosén 2014; Meeuwisse, Severiens, & Born, 2010; Mohr & Rosén, 2016; Read, Ouimette, White, Colder, & Farrow, 2011; Seidman, 2005). However, fewer researchers have studied factors that aid in managing the stress inherent in the adjustment to the college environment itself. As documented above, adjustment to the college environment can be an extremely stressful event all by itself. The student is presented with a life transition from adolescence to adulthood. This adjustment creates current stress that includes emotional, social, and academic stressors, adjustment to a new identity, and newfound freedom (Arnett, 2013; DeBerard et al., 2004). The unfamiliarity of the college environment also presents challenges to personal security and self-esteem (Hurst, et al., 2013), a yearning for acceptance, a need for comfort (Blimling & Miltenberg, 1990; Chu, 2016; Dyson & Renk, 2006), increased social anxiety (Larose & Boivin, 1998; Nordstrom et al., 2014), and decreased perception of social support (Beck et al., 2003; Chao, 2012). When faced with these stressors, college students are required to find a way to successfully adjust to their new environment. Therefore, certain protective factors make adjustment to the college environment easier and less stressful.

A study conducted by Galatzer-Levy, Burton, and Bonanno (2012) assessed factors that bolstered college adjustment in first-year undergraduate students. Protective factors predictive of general college adjustment included quality education, self-efficacy, optimism, emotion regulation, prosocial relationships, and social engagement (Galatzer-Levy et al., 2012). Research by Woolley and Grogan-Kaylor (2006) also finds that good schooling and positive school environments are protective, as well as positive peer influences and connections. Other research

has found protective factors to include the ability to maintain family relationships during the college adjustment period (Larose & Boivin, 1998; Masten, 2013), perceived social support (Friedlander, Reid, Cribbie, & Shupak, 2007), optimism, psychological control (Masten, 2013), and self-esteem (Friedlander et al., 2007).

Current Study

A number of prior empirical studies have assessed successful college adjustment despite prior trauma exposure (Cantor & Banyard, 2004; Duncan, 2000; Read et al., 2011), childhood maltreatment (Maples et al., 2014; Mohr & Rosén, 2016), and stressors due to minority-status (Eimers & Pike, 1997; Meeuwisse et al., 2010; Nora & Cabrera, 1996; Seidman, 2005). Such studies intended to understand how individuals who have experienced early childhood adversity are able to adjust. In contrast to prior research, the present study aims to evaluate the general adjustment process during the first semester of college, while controlling for prior adversity, to determine which factors serve to enhance one's likelihood of successful adjustment to the college environment. In addition, minimal research has been conducted on gender differences associated with protective factors (Chandy et al., 1996; Friborg et al., 2003; Hartman et al., 2008; Ogg, Brinkman, Dedrick & Carlson, 2010; Shirley, 2011). The present research aims to further understand whether a difference exists between men and women in protective factors associated with successful college adjustment.

The research questions and hypothesis are as follows:

1. In a sample of college students at a large Western university, what protective factors are associated with successful adjustment to the college environment during the first semester?

2. Are different protective factors associated with successful adjustment to the college environment for men and women?

Hypothesis 1: It is predicted that familial and extrafamilial protective factors will be significantly associated with successful college adjustment among women more than men (Chandy et al., 1996; Kretchmar, 2009; Lindsey, 2015).

Hypothesis 2: Individual protective factors will be significantly associated with successful college adjustment among men more than women (Chandy et al., 1996).

Hypothesis 3: Women will report significantly stronger parental connections (Chandy et al., 1996), prosocial support outside the family context (Eagly, 2013; Friborg et al., 2003; Hartman et al., 2008), self-esteem, religiosity, and good schooling (Hartman et al., 2008) compared to men.

CHAPTER II

Method

Participants

Participants for this study included 304 students from introductory psychology classes who received class credit for participation. Participants came from a large western United States university and included 254 (83.6%) females, 50 (16.4%) males with an average age of 18.19 years (**SD** = 1.18). Furthermore, 8 (2.6%) identified as African American/Black, 6 (2.0%) as American Indian/Native American, 18 (5.9%) as Asian American/Asian, 38 (12.5%) as Hispanic/Latino, 1 (0.3%) as Native Hawaiian/Pacific Islander, 230 (75.7%) as White non-Hispanic, and 3 (1%) reported Other. The sample consisted of undergraduate students from a wide variety of academic backgrounds at a large western state university, with 52 (17.1%) participants with an undeclared major (see Table 1). All participants were full-time students.

Colorado State University' s Institutional Research (2016) recently researched retention rates at the sampled university. First-year retention at this university was found to be 86.2% in the fall semester of 2015. Further, 75.7% of students at Colorado State University were found to remain at the university until their fourth year. Of these students, 44.8% graduate after four years (Colorado State University Institutional Research, 2016).

Measures

Student stress

Stress experienced in the college environment was measured using the College Chronic Life Stress Survey (CCLSS; Towbes & Cohen, 1996). The CCLSS contains 54-items placed on a 3-point Likert scale. The measure assesses stressful experiences within six domains of college life:

academic performance, peer relations, family relations, romantic relationships, lifestyle, and health. Participants responded to the items on the survey based on how much each event bothered them (i.e., caused stress) within the past month (1 = just a little, 3 = very much). Participants were instructed to leave items blank that did not pertain to them within that one-month period. The measure resulted in an impact score, the total of the stressor severity ratings, which ranges from 0-162, with a scores toward the upper limit indicating a higher stress impact on participants' lives. Example events within the measure include roommate conflict, writing papers, and missing distant friends. The measure was piloted on a sample of college students. The measure yielded a high full scale reliability (alpha = 0.90; Towbes & Cohen, 1996). Scores from the CCLSS have also exhibited good test-retest reliability and concurrent validity (see Appendix A).

College Adjustment

College adjustment was measured using the College Adjustment Questionnaire (CAQ; Shirley & Rosén, 2010). The CAQ contains 14 items placed on a 5-point Likert scale. The measure is divided into three subscales: Academic Adjustment, Social Adjustment, and Emotional Adjustment. Participants responded to the items on the survey based on how accurately each statement described their college experience at the current point in time (0 = very inaccurate, 4 = very accurate). For example, "I am succeeding academically" and "I am satisfied with my social relationships." Five items on this scale are reverse coded, including items 2, 8, 9, 11, and 13. The Academic Adjustment subscale measures participants' beliefs on whether they are succeeding academically, feel they are doing well in classes, are content with their course grades, and if participants feel they are meeting personal academic goals. The Social Adjustment subscale focuses on whether participants believe they are socially engaged, feel they have easily

found friends during their college experience, and if they are content and satisfied with their social relationships. The Emotional Adjustment subscale measures participants' emotional and psychological experiences during college, asking questions regarding success of coping emotionally to stressful events, emotional stability, and emotional satisfaction with the college experience. The subscales yielded an alpha of .89 (Academic Adjustment), 0.84 (Social Adjustment), and 0.78 (Emotional Adjustment) in a sample of college students (Shirley & Rosén, 2010). Full scale reliability was also high (alpha = 0.83), along with an adequate demonstration of construct validity (see Appendix B).

Protective Factors

The Social and Emotional Resources Inventory (SERI; Mohr & Rosén, 2012) was adapted to measure protective factors. The SERI contains 50-items placed on a 5-point Likert scale. It is designed to measure the presence of individual, familial, and community protective factors (see Appendix C). The measure is divided into 12 subscales: intelligence (4 items), parenting practices (5 items), parent connections (3 items), self-esteem (5 items), money (3 items), resources (3 items), faith (6 items), talent (6 items; e.g., "I have a personal talent"), good schools (4 items), prosocial adults (4 items), kin connections (4 items), and prosocial organizations (3 items; see Appendix D). The SERI was adapted for this study such that participants responded to the items on the survey based on how accurately each statement described their current situation (1 = very inaccurate, 5 = very accurate). For example, "My family does not have to worry excessively about money" and "My faith or spirituality is important to me." In a sample of college students, the scale's internal consistency estimates for the 12 subscales ranged from 0.84 to 0.97 (Mohr & Rosén, 2012). Full scale reliability was found to be 0.95.

Since the SERI does not measure coping and optimism, further measures were used to measure these constructs. The Coping Self-Efficacy Scale (CSES; Chesney, Neilands, Chambers, Taylor, & Folkman, 2006) was used to measure coping self-efficacy. The CSES is a 26-item measure on an 11-point Likert scale that assesses participants' beliefs about their ability to engage in coping behaviors (see Appendix E). Participants respond to the items on the survey based on how confident or certain they are that they can perform different behaviors important to adaptive coping. (0 = cannot do at all, 5 = moderately certain can do, 10 = certain can do). Examples of behavior participants rate their confidence in performing include making unpleasant thoughts go away, breaking an upsetting problem down into smaller parts, and getting emotional support from friends and family. The CSES results in an overall score, obtained from summing the item ratings (mean = 137.4, SD = 45.6). Higher scores on the measure indicate a greater confidence in one's ability to positively cope with threats and challenges. The CSES measure has yielded a Cronbach's alpha of 0.95 (Chesney et al., 2006).

As for optimism, the Life Orientation Test Revised (LOT-R; Scheier, Carver & Bridges, 1994) was used to measure this construct. The LOT-R is a brief 10-item instrument that measures one's tendency towards optimism (see Appendix F). Participants respond to the items on the survey based on how much they personally agree with each statement (1 = I agree a lot, 5 = I disagree a lot). Items 2, 5, 6, and 8 in the survey are filler items, meaning they are not scored. Items 3, 7, and 9 are reverse scored. The LOT-R results in an overall score, obtained from summing the item ratings. Higher scores on the measure indicate a greater tendency towards optimism. Sample items include, "In uncertain times, I usually expect the best" and "I'm always optimistic about my future." Directions for the instrument were altered to reflect the present tense. The measure has yielded a Cronbach's alpha of 0.78 (Scheier et al., 1994). Test-retest

reliability has been found to be high, with values ranging from 0.68 for four months, 0.60 for twelve months, 0.56 for twenty-four months, and 0.79 for twenty-eight months (Scheier et al., 1994).

Traumatic Events

Given the importance of assessing for the presence of other traumatic events for individuals in the sample, a Trauma History Questionnaire (THQ) was used to assess the presence of traumatic events for participants in the sample (see Appendix G). This measure served as a control, as the impact on this construct on college adjustment will be removed. Presence of prior trauma was indicated by the following experiences taken from Triplett, Tedeschi, Cann, Calhoun, and Reeve's (2001) research on trauma history in college students: death of a close loved one, very serious medical problem, close friend, family member, or significant other experiencing a serious medical condition, accident that led to serious injury to themselves or someone close to them, place of residence being damaged by fire or other natural causes, experienced a divorce (parental or personal), physically assaulted, sexually assaulted, victim of a crime such as robbery or mugging, and being stalked. Participants were asked to indicate the whether they have experienced each traumatic event and severity of each traumatic event (responses choices range from 0 = not severe to 4 = extremely severe). A total trauma score is the sum of the total number of traumas an individual endorses, ranging from 0 to 10. A total severity score is the average of the severity ratings provided, resulting in a severity score ranging from 0 to 4.

Demographics Questionnaire

Descriptive information about the sample were obtained using a 7-item demographics questionnaire to gather information on the participants' age, gender, major, ethnicity, sexual

orientation, family household income, the number of course credits enrolled in for the current semester, and whether they are a part-time or full-time student (Appendix H).

Procedure

Participants accessed the survey through any computer that had Internet access in any desired location. All participants' responses were anonymous; no personal identifying information was collected so as to protect confidentiality. Prior to participation in the study, each participant was shown a consent form explaining the procedure, associated risks in the experiment, and assurance of the confidentiality of any information provided during the survey (Appendix I). After reading the consent form, participants were asked to check a box labeled "I agree to proceed." Participants were also asked if they consented to being contacted via email in the future to participate in a future follow-up study. Participants who agreed to the terms of the consent form will be directed to the survey. Those who did not wish to participate were directed to the end of the survey. The web-based survey software, Qualtrics, provided all of the instructions necessary for the participants to proceed.

Participation in the current study required participants to complete two sets of surveys at two separate points in time. Participants completed the CCLSS, CAQ, SERI, CSES, LOT-R, THQ, and demographics questionnaire at the beginning of the academic semester (i.e., within four weeks from the start of the semester). Participants completed the CCLSS and CAQ again at the end of the semester (i.e., during the last four weeks of the semester) in order to assess how stress levels and college adjustment changed over time.

Beginning of the Semester

Participants were directed to the study measures. Participants were required to create a unique identification number in order to match their first set of data to their data from the end of

the semester. Identification numbers were created by taking the participants first four digits of their birth month and date and the last three digits of their school identification number, creating a unique seven-digit identification number for each participant. After creating this identification number, respondents completed the CCLSS, then the CAQ, SERI, CSES, LOT-R, and finally, they filled out the THQ and demographics questionnaire.

End of the Semester

Participants were directed to the study measures. Participants input their unique seven-digit identification number in order to link their second set of data to their data from the beginning of the semester. Respondents then completed the CCLSS followed by the CAQ. Participants concluded the study by reading the debriefing form (Appendix J). Within the debriefing form, participants were provided contact information for the Colorado State University Health Network Counseling Services which could be used if they experienced any negative effects due to their participation in the study or needed further assistance in successfully adjusting to college. All measures and procedures were approved by Colorado State University's Institutional Review Board (IRB).

CHAPTER III

Results

Missing Data

Four hundred forty-two participants completed the first set of surveys at the beginning of the semester and 546 participants completed the second set of surveys at the end of the semester. Participants with more than 50% missing values were deleted from the dataset, due to not completing a satisfactory portion of the study. For the first set of data, from the beginning of the semester, this resulted in removing 31 participants from the study (i.e., 411 participants remaining). For the second set of data, from the end of the semester, this resulted in removing 160 participants (i.e., 386 participants remaining). There were 32 participants removed from the dataset due to a lack of an identification number, making it unable to match their first set of data to the second set. Participant data from the beginning of the semester was then matched with data from the end of the semester via the unique identification number created by the participants. This matching process resulted in a total of 304 participants that were entered into the analyses.

Student Stress

Using a paired-samples t-test, stress scores on the CCLSS were compared from the beginning of the semester to the end of the semester. No difference was found between student stress at the beginning of the semester ($M = 53.74$) compared to the end of the semester ($M = 55.47$), $t(303) = -1.46$, $p = .15$.

College Adjustment

Adjustment to the college environment was compared from the beginning of the semester to the end of the semester using paired-samples t-tests. Social adjustment to the college

environment significantly decreased from the beginning of the semester (M = 2.11) to the end of the semester (M = 1.82), $t(303) = 5.82$, $p < .01$. Emotional adjustment to the college environment significantly decreased from the beginning of the semester (M = 2.77) to the end of the semester (M = 1.82), $t(303) = 19.66$, $p < .01$. Academic adjustment to the college environment significantly decreased from the beginning of the semester (M = 2.79) to the end of the semester (M = 2.21), $t(303) = 13.06$, $p < .01$.

Protective Factors Predicting College Adjustment

Three multiple linear regression models were run to assess whether protective factors (SERI, CSES, LOT-R) were significantly associated with social adjustment, emotional adjustment, and academic adjustment to the college environment (CAQ). All the models focused on college adjustment at the beginning of the semester. Given the importance of assessing for the presence and severity of traumatic events for individuals in the sample, the number of traumatic experiences and average severity of traumatic experiences were controlled for in the model. The 14 measured protective factors were included in the model: intelligence, parenting practices, parent connections, self-esteem, money, resources, faith, talent, good schools, prosocial adults, kin connections, and prosocial organizations, coping skills, and optimism. A post-hoc power analysis was conducted, revealing a power of 1.0 with 304 participants, an alpha level of .01, and 14 predictors, along with two control variables, in the multiple regression model. This indicates that the probability of correctly rejecting a false null hypothesis was 100%. Due to the number of predictors in the models, there was an increased likelihood of family-wise error rate, or obtaining a false positive. To address this, a more conservative alpha level of $p = .01$ was utilized.

Social Adjustment

A multiple regression model was run to predict social adjustment based on the 14 protective factors (i.e., SERI, CSES, LOT-R). The model with all 14 protective factor predictors was significant when controlling for number of traumatic experiences and severity of traumatic experiences, $R^2 = .19$, $F(16, 287) = 4.31$, $p < .001$. Specifically, higher levels of self-esteem significantly predicted greater social adjustment above and beyond the influence of all other protective factors, $B = .43$, $p < .001$. In addition, the presence of relationships with prosocial adults outside of the family predicted greater social adjustment to the college environment with marginal significance after controlling for all other protective factors, $B = .18$, $p < .05$. Intelligence ($B = .08$, $p < .51$), parenting practices ($B = -.05$, $p = .75$), connection with parents ($B = -.01$, $p = .96$), money ($B = .11$, $p = .21$), resources ($B = -.03$, $p = .76$), faith ($B = -.07$, $p = .14$), talent ($B = -.01$, $p = .88$), good schooling ($B = -.18$, $p = .17$), kin connections ($B = .00$, $p = .95$), prosocial organizations ($B = .00$, $p = .95$), coping skills ($B = .00$, $p = .93$), and optimism ($B = .00$, $p = .97$) did not significantly predict social adjustment once self-esteem and relationships with prosocial adults outside of the family were accounted for in the model (Table 2).

Emotional Adjustment

A multiple regression model was run to predict emotional adjustment based on the 14 protective factors (i.e., SERI, CSES, LOT-R). The model with all 14 protective factor predictors and when controlling for number of traumatic experiences and severity of traumatic experiences was significant, $R^2 = .43$, $F(16, 287) = 13.37$, $p < .001$. Higher levels of self-esteem ($B = .41$, $p < .001$), good schooling ($B = .27$, $p < .01$), and greater coping skills ($B = .01$, $p < .001$) significantly predicted greater emotional adjustment to the college environment above and beyond the influence of all other protective factors. Personal talent significantly predicted lower

emotional adjustment with marginal significance after controlling for all other protective factors, B = -.16, p < .05. Intelligence (B = .13, p < .17), parenting practices (B = -.06, p = .59), connection with parents (B = .12, p = .18), money (B = -.01, p = .86), resources (B = -.02, p = .79), faith (B = -.04, p = .27), prosocial adults (B = -.03, p = .59), kin connections (B = -.02, p = .66), prosocial organizations (B = -.01, p = .89), and optimism (B = .00, p = .78) did not significantly predict emotional adjustment once self-esteem, personal talent, good schooling, and coping skills were accounted for in the model (Table 3).

Academic Adjustment

A multiple regression model was run to predict academic adjustment based on the 14 protective factors (i.e., SERI, CSES, LOT-R). The model with all 14 protective factor predictors and when controlling for number of traumatic experiences and severity of traumatic experiences was significant, $R^2 = .38$, $F(16, 287) = 10.81$, $p < .001$. Greater levels of intelligence (B = .65, p < .001) and good schooling (B = .30, p < .001) significantly predicted greater academic adjustment to the college environment above and beyond the influence of all other protective factors. The presence of relationships with prosocial adults outside of the family significantly predicted lower academic adjustment after controlling for all other protective factors, B = -.14, p < .01. Parenting practices (B = -.03, p = .76), connection with parents (B = .01, p = .90), self-esteem (B = .00, p = .99), money (B = .00, p = .98), resources (B = .05, p = .51), faith (B = .01, p = .72), personal talent (B = -.04, p = .47), kin connections (B = .04, p = .37), prosocial organizations (B = .00, p = .90), coping skills (B = .00, p = .89), and optimism (B = -.01, p = .53) did not predict academic adjustment once intelligence, good schooling, and relationships with prosocial adults outside of the family were accounted for in the model (Table 4).

Gender Differences in Protective Factors

The second step of data analysis involved investigating gender differences in social and emotional resources reported by each gender. Independent samples t-tests were conducted to determine what, if any, social and emotional resources are reported more by women than men. Since the sample size was not evenly split between males and females, the following independent samples t-test results were calculated with equal variances not assumed. Results revealed that men and women differ in three different social and emotional resources: self-esteem, $t(73.88) = 2.18$, $p < .05$, talent, $t(76.84) = 3.03$, $p < .001$, and coping skills, $t(70.33) = 2.05$, $p < .05$. See Table 5.

However, since 14 independent samples t-tests were run, there was an increased likelihood of family-wise error rate, or obtaining a false positive. To address this, a more conservative p-value of .01 was used. Once this correction was applied to the data, only the talent comparison remained significant. Specifically, males ($M = 4.12$) self-reported a higher level of personal talent than females ($M = 3.75$).

CHAPTER IV

Discussion

The primary goal of this study was to investigate the relationship between protective factors (individual, familial, and extrafamilial) and college adjustment (social, emotional, and academic adjustment). Specific focus was also paid to how men and women compare regarding the association of protective factors and college adjustment. Results indicated that higher levels of self-esteem significantly predicted social adjustment to the college environment, higher levels of self-esteem, quality education, and greater coping skills significantly predicted greater emotional adjustment, while greater levels of intelligence and quality education significantly predicted greater academic adjustment. Comparisons between men and women regarding protective factors revealed that men demonstrated a higher self-perception of personal talent than women. No other protective factors demonstrated gender differences.

Student Stress

Data analyses revealed that first-year students reported relatively high levels of stress at the beginning and the end of the semester. Stress levels at both time points in the semester were comparable. These levels of stress could be explained due to different processes occurring at the beginning and end of the semester. During the first four weeks of the semester, students likely display high levels of stress due to difficulties associated with initial adjustment to the college environment. For example, students face the complexity of establishing new peer groups, coping with homesickness, and a difficult academic transition from high-school to college courses. Alongside these challenges, students may have dashed expectations, such as hoping to easily establish a social group and fit into the social atmosphere of the college environment, yet may

struggle to feel accepted or as though they belong. Student stress levels may have been elevated at end of the semester due to the last four weeks of the semester being a time when finals are approaching and students display stress related to course grades.

Maintaining an elevated level of stress from the beginning to the end of the semester could also be problematic. First-year students may not feel well-adjusted to the college environment after their first semester or may question their ability to manage the stress inherent within the college atmosphere, which may discourage students and increase attrition rates. It is important for universities to be aware of this, as it may be important to provide students transition resources for the duration of their first semester at the university.

College Adjustment

Adjustment to the college environment was compared from the beginning of the semester to the end of the semester. Social, emotional, and academic adjustment to the college environment significantly decreased from the beginning of the semester to the end of the semester. These decreases may indicate that students did not successfully adjust at the beginning of the semester, leading to stress and burnout from attempting to adjust throughout the semester, and ultimately decreasing overall adjustment to the college environment by the end of the semester. This is another potentially problematic finding, as this may negatively impact persistence into the second year. While universities tend to emphasize orientation and transition programs at the beginning of the first-year semester, this finding reinforces the importance of such programs throughout the first semester of college. Such programs would aid in navigating and sustaining social, emotional, and academic adjustment to college.

Protective Factors Predicting College Adjustment

Results indicated that higher levels of self-esteem significantly predicted social adjustment to the college environment. Higher levels of self-esteem, quality education, and

greater coping skills significantly predicted greater emotional adjustment, while greater levels of intelligence and quality education significantly predicted greater academic adjustment. The ability of high levels of self-esteem to predict social adjustment supports prior research findings (Friedlander et al., 2007; Galatzer-Levy et al., 2012). Such studies have noted self-esteem as vital in emerging adulthood for the ability to transition to a university. Self-esteem as a protective factor related to social adjustment makes sense, as self-esteem relates to feelings of competence in various areas of life, such as academic or social relations (Friedlander et al., 2007). Higher levels of self-esteem would provide an emerging adult with a better sense of competence in social relations, increasing their willingness to engage in social events and develop more positive relationships, and demonstrating positive social adjustment in a new environment.

Results indicating that higher levels of self-esteem, quality education, and greater coping skills significantly predicted greater emotional adjustment support prior research findings (Friedlander et al., 2007; Galatzer-Levy et al., 2012; Woolley & Grogan-Kaylor, 2006). It is also clear why self-esteem serves as a protective factor related to positive emotional adjustment. As previously mentioned, self-esteem relates to feelings of competence in various areas of life (Friedlander et al., 2007). Higher levels of self-esteem would provide an emerging adult with a better sense of competence various domains related to college adjustment. As a result, one would feel competent and successful in the college environment, increasing one' s ability to feel emotionally adjusted (e.g., emotion regulation, coping emotionally with stressful events, emotional stability, emotional satisfaction with the college experience). This also associates well with quality education predicting positive emotional adjustment to the college environment. Individuals who define their university as providing a quality education are more likely to

display emotional satisfaction with the college experience, demonstrating an overall increase in emotional adjustment. Finally, strong coping skills relate well to emotional adjustment, as emerging adults who can positively cope with stressful events inherent in the college environment, regulate their emotions, and sustain emotional stability, are more likely to demonstrate an overall higher level of emotional adjustment.

The current investigation found that greater levels of intelligence and quality education significantly predicted greater academic adjustment, which supports previous research findings (Galatzer-Levy et al., 2012; Masten, 2013; Woolley & Grogan-Kaylor, 2006). This finding makes practical sense, as intelligence and quality education are facets of cognitive ability and would predict the ability to succeed academically. It is important to note that many of the protective factors measured (e.g., parental connections, financial resources, parenting practices, prosocial organizations, etc.) did not significantly predict social, emotional, or academic adjustment. This may indicate that such protective factors are not associated with initial adjustment to the college environment. For example, familial factors, such as parental connections and relationships, may not aid in college adjustment. It would be important in future research to evaluate whether these findings are upheld. If future empirical studies found that these factors were found to significantly predict college adjustment, it would be important to communicate these findings to first-year students. It is also necessary to conduct this research on a sample that has greater gender equivalence, as the present study included 254 (83.6%) females and 50 (16.4%) males. Perhaps the current findings represent how women adjust to the college environment, meaning the results would differ if there were equal representations of both genders. For example, men may demonstrate different patterns of adjustment than women, which is unclear based on the gender discrepancy in this study.

Gender Differences in Protective Factors

Results indicated that men reported a higher self-perception of talent compared to women when evaluating gender differences in protective factors. This finding does not support the research hypothesis, that women would report a greater presence of familial and extrafamilial protective factors than men, while men would report engaging individual protective factors more than women (Chandy et al., 1996; Kretchmar, 2009; Lindsey, 2015). Specifically, based on prior research findings, it was predicted that women would report strong parental connections (Chandy et al., 1996), prosocial social support (Eagly, 2013; Friborg et al., 2003; Hartman et al., 2008), self-esteem, religiosity, and good schooling (Hartman et al., 2008) as protective factors more than men. None of these hypotheses were supported by the data. This may indicate that gender differences in protective factors are nonexistent. Therefore, men and women benefit equally from the various protective factors measured.

The finding that men endorsed greater personal talent than women aligns well with gender socialization theory. Gender socialization theory posits that women are more interdependent and focused on interpersonal relationships, while men are independent and tend to avoid help-seeking behaviors (Kretchmar, 2009; Lindsey, 2015). Conceptually, the finding that men reported greater personal talent than women fits with the idea that men and women have different strategies for dealing with adjustment, which leads them to report different protective factors in such a way that men reported greater personal talent, an individual protective factor. Personal talent would be considered an individual protective factor, and research provides evidence that men tend to rely greater on individual protective factors than familial or community factors.

In comparing gender differences, the sample was comprised of mostly females which may have influenced the results by not reflecting male adjustment to the college environment. As previously stated, further research could replicate the present study on a sample that has greater gender equivalence, as the current findings may differ if there were equal representations of both genders.

Limitations and Directions for Future Research

One of the biggest limitations to this research relates to sample demographics. Since the sample was predominantly White (75.7%), we do not know how these results would generalize to various other ethnic groups. In addition, the fact that the sample was predominantly female (83.6%), means that the results may not generalize to male college students. For example, the present study results may relate to female adjustment to the college environment and not to male adjustment. In addition, the unequal gender distribution also limits the ability to assess gender differences in protective factors. It would be beneficial to assess a more ethnically diverse and gender equivalent sample.

Another important limitation relates to attrition. Four-hundred forty-two participants completed the first set of surveys at the beginning of the semester, while 546 participants completed the set of surveys at the end of the semester. Once data was cleaned and participants who did not complete at least half of the survey questions or didn' t provide a unique identification number to link their data from the beginning of the semester to the end of the semester were eliminated, only 304 participants remained. It is difficult to know if those who dropped out of the study would have demonstrated different trends related to the adjustment to the college environment. It is also unclear why these participants dropped out of the study; they

may have left the university, which would have provided important information about which variables aid in retention versus attrition.

An additional limitation was the use of independent samples t-tests to measure gender differences in protective factors. A t-test analyzes differences between two groups and the effect of one independent variable on one dependent variable. Thus, using a t-test to assess for gender differences in protective factors leaves out the influence other variables may have and does not assess the effect of interactions. Perhaps the reason that significant gender differences were not found is due to the data analyses used. To assess for an interaction, it would be beneficial to conduct a hierarchical regression or structural equation model using an interaction term between gender and protective factors to see if gender differences exist. Therefore, the data analyses used may limit the ability to detect significant differences or interactions.

A final limitation of this study was the precision of the instruments used. The validity of the measurement tools, particularly the SERI, is questionable. While previous studies have found this measure to be valid (full scale reliability was found to be 0.95; Mohr & Rosén, 2012), it is important to assess whether the measure is actually capturing the underlying construct of protective factors. For example, the factors "intelligence" and "talent" may not measure true intelligence or level of talent, as they are self-reports. Instead, these measures are capturing perceived views of intelligence and talent. Also of importance, is the likelihood that perceived intelligence has minimal variance in a college population. Therefore, the sampled population will likely show a narrow range of elevated levels of intelligence based on their environment. In addition, "talent" was a vague factor within this measure, as it is unclear what form of talent this dimension is measuring. As a result, the definition of talent may have varied widely throughout the sample, making it difficult to interpret what this factor measures.

The present study did not measure retention of the participants who completed the study. However, future research should assess whether protective factors endorsed at the beginning of one's college education (i.e., in the first-year) predict whether a student remains at a university and continues his/her undergraduate education, as well as future academic success (e.g., grade-point average). It would provide additional information to assess students in their first semester and follow them for several years at their university to assess how protective factors predict ongoing success and those who drop out. Such findings would allow the university to draw comparisons between their first-year student retention and attrition rates with national averages.

Implications

An important implication from these study results is that orientation and transition programs at universities should continue throughout the first semester of a student's first-year, and possibly the entire first year. Results showed a maintenance of high levels of stress throughout the first semester and also showed significant decreases in social, emotional, and academic adjustment from the beginning to the end of the semester. These findings are particularly relevant for designing and implementing interventions for first-year students in order to prevent attrition or unsuccessful adjustment to the college environment. Further, these findings are important because universities want first-year students to have a quality experience, with high levels of social and emotional adjustment and positive experiences at the university.

Findings that self-esteem, strong coping skills, quality education, and intelligence predict adjustment to the college environment also provide important implications. Specifically, universities should inform students of supportive resources they can utilize to aid their transition to universities. There is the opportunity to teach strategies that first-year students could use to increase their potential for successfully transitioning to college. From the finding that self-esteem

and coping skills contribute to successful adjustment, first-year students can be informed of university counseling services, where they can work to utilize and improve these individual skills. Not only should students be informed of this resource and its usefulness, but it would be important to provide statistics on how many first-year students, along with advanced students, have utilized this resource. This would provide a way in which to decrease the stigma often associated with getting help via therapy.

With regard to intelligence and quality education being predictors of successful adjustment to the college environment, university resources should also be discussed in orientation and transition programs, as well as advertised to first-year students, in order to increase knowledge and access to these resources. Such university resources, including tutoring, skills workshops, or study groups, would provide students with a context in which they can exercise their intelligence and gain confidence in their ability to receive a quality education at their university.

The present study highlights the importance of successful adjustment to the college environment during the first-year of a student' s undergraduate career. Not only is it important to successfully adjust in social, emotional, and academic domains, but such adjustment relates to a greater likelihood of retention at a university. It is necessary to understand the protective factors that are associated with successful adjustment to the college environment, as this provides a better understanding of the difficulties first-year students face and encourages universities to aid in adjustment processes and ensure students have a positive university experience.

TABLES

Table 1

Percentage of Participant Area of Study at Sampled University

College	Percentage
Health and Human Sciences	30.6
Natural Sciences	26.6
Liberal Arts	11.5
Veterinary Medicine and Biomedical Sciences	9.5
Business	3.0
Engineering	1.3
Agricultural Sciences	0.3
Warner College of Natural Resources	0.0
Undeclared	17.1

Table 2

Summary of Multiple Regression Analysis for Protective Factors Predicting Social Adjustment to College

	B	SE	β
Intelligence	0.08	0.13	0.05
Parenting Practices	-0.05	0.15	-0.03
Parenting Connections	-0.01	0.11	0.00
Self-Esteem	0.43	0.11	0.38**
Money	0.11	0.09	0.11
Resources	-0.03	0.11	-0.03
Faith	-0.07	0.05	-0.09
Talent	-0.01	0.08	-0.01
Good Schools	-0.18	0.13	-0.09
Prosocial Adults	0.18	0.08	0.15*
Kin Connections	0.00	0.07	0.00
Prosocial Organizations	0.00	0.06	0.00
Coping Skills	0.00	0.00	0.01
Optimism	0.00	0.02	0.00

Note. *p < .05. **p < .01.

Table 3

Summary of Multiple Regression Analysis for Protective Factors Predicting Emotional Adjustment to College

	B	SE	β
Intelligence	0.13	0.10	0.08
Parenting Practices	-0.06	0.11	-0.04
Parenting Connections	0.11	0.08	0.10
Self-Esteem	0.41	0.08	0.40**
Money	-0.01	0.07	-0.01
Resources	-0.02	0.08	-0.02
Faith	-0.04	0.04	-0.06
Talent	-0.16	0.06	-0.15*
Good Schools	0.27	0.10	0.15**
Prosocial Adults	-0.03	0.06	-0.03
Kin Connections	-0.02	0.05	-0.03
Prosocial Organizations	-0.01	0.04	-0.01
Coping Skills	0.01	0.00	0.23**
Optimism	0.00	0.01	0.02

Note. *p < .05. **p < .01.

Table 4

Summary of Multiple Regression Analysis for Protective Factors Predicting Academic Adjustment to College

	B	SE	β
Intelligence	0.65	0.08	0.53**
Parenting Practices	-0.03	0.09	-0.03
Parenting Connections	0.01	0.07	0.01
Self-Esteem	0.00	0.07	0.00
Money	0.00	0.06	0.00
Resources	0.05	0.07	0.05
Faith	0.01	0.03	0.02
Talent	-0.04	0.05	-0.05
Good Schools	0.30	0.08	0.21**
Prosocial Adults	-0.14	0.05	-0.18**
Kin Connections	0.04	0.04	0.05
Prosocial Organizations	0.00	0.04	0.01
Coping Skills	0.00	0.00	-0.01
Optimism	-0.01	0.01	-0.04

Note. *p < .05. **p < .01.

Table 5

Independent Samples t-test Results Comparing Males and Females on Presence of Protective Factors

Protective Factor	Gender	Mean	SD	t	df	p
Intelligence	Male	4.11	0.61	0.67	67.35	0.51
	Female	4.04	0.58	-	-	-
Parenting Practices	Male	4.60	0.51	0.98	82.57	0.33
	Female	4.52	0.64	-	-	-
Parenting Connections	Male	4.29	0.85	-0.27	69.80	0.79
	Female	4.33	0.85	-	-	-
Self-Esteem	Male	3.94	0.81	2.18	73.88	0.03
	Female	3.67	0.89	-	-	-
Money	Male	3.85	0.92	-0.24	74.18	0.81
	Female	3.88	1.01	-	-	-
Resources	Male	3.94	0.79	-0.02	72.40	0.99
	Female	3.94	0.84	-	-	-
Faith	Male	2.96	1.13	0.60	77.41	0.55
	Female	2.86	1.32	-	-	-
Talent	Male	4.12	0.77	3.03	76.84	0.00
	Female	3.75	0.89	-	-	-
Good Schools	Male	4.39	0.53	-0.52	67.87	0.61
	Female	4.43	0.51	-	-	-
Prosocial Adults	Male	3.88	0.91	-0.86	67.67	0.39
	Female	4.00	0.86	-	-	-
Kin Connections	Male	3.86	1.08	-0.30	67.54	0.76
	Female	3.91	1.03	-	-	-
Prosocial Organizations	Male	3.11	1.16	-0.99	66.58	0.33
	Female	3.29	1.07	-	-	-
Coping Skills	Male	204.60	43.60	2.05	70.33	0.04
	Female	190.72	44.26	-	-	-
Optimism	Male	20.44	4.16	0.78	77.07	0.44
	Female	19.93	4.80	-	-	-

Note. Significant at the $p < .01$ level.

REFERENCES

Amatea, E., Smith-Adcock, S., & Villares, E. (2006). From Family Deficit to Family Strength: Viewing Families' Contributions to Children's Learning from a Family Resilience Perspective. **Professional School Counseling, 9**(3), 177-189.

Antonucci, T. C., & Akiyama, H. (1987). An examination of sex differences in social support among older men and women. **Sex Roles, 17**(11-12), 737-749.

Arnett, J. J. (2013). **Adolescence and Emerging Adulthood: A Cultural Approach**. Upper Saddle River, NJ, USA: Pearson Education Limited.

Beck, R., Taylor, C., & Robbins, M. (2003). Missing home: Sociotropy and autonomy and their relationship to psychological distress and homesickness in college freshmen. **Anxiety, Stress, and Coping, 16**(2), 155-166.

Benzies, K. & Mychasiuk, R. (2009). Fostering family resiliency: A review of the key protective factors. **Child and Family Social Work, 14**, 103-114.

Black, K. & Lobo, M. (2008). A conceptual review of family resilience factors. **Journal of Family Nursing, 14**, 33-55.

Blimling, G. S., & Miltenberger, L. J. (1990). **The resident assistant: Working with college students in residence halls**. Kendall/Hunt Publishing Company.

Blum, R.W., McNeely, C. & Nonnemaker, J. (2002). Vulnerability, Risk, and Protection. **Journal of Adolescent Health, 31**, 28-39.

Butler, T., Giordano, S., & Neren, S. (1985). Gender and sex-role attributes as predictors of utilization of natural support systems during personal stress events. **Sex Roles, 13**(9-10), 515-524.

Cantor, E. N., & Banyard, V. L. (2004). Adjustment to college among trauma survivors: An exploratory study of resilience. **Journal of College Student Development, 45**(2), 207-221.

Chandy, J.M., Blum, R.W., & Resnick, M.D. (1996). Gender-specific outcomes for sexually abused adolescents. **Child Abuse & Neglect, 20**(12), 1219-1231.

Chao, R. C. L. (2012). Managing perceived stress among college students: The roles of social support and dysfunctional coping. **Journal of College Counseling, 15**(1), 5-21.

Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. **British Journal of Health Psychology, 11**(3),421-437.

Chu, Z. The First Year Experience on an Urban Campus: A Case Study Exploring the Impact of First Year Programs on Student Perceptions of Belonging, Adjustment, Success, and Support." Dissertation, Georgia State University, 2016.

Colorado State University Institutional Research (2016). **Context for the Gaps Action Teams: Student Success Initiatives** [PowerPoint Slides]. Retrieved from Colorado State University Gaps Action Team Kickoff.

DeBerard, M. S., Spielmans, G. I., & Julka, D. L. (2004). Predictors of academic achievement and retention among college freshmen: A longitudinal study. **College Student Journal, 38**(1), 66-80.

Duncan, R. D. (2000). Childhood maltreatment and college drop-out rates. **Journal of Interpersonal Violence, 15**, 987-995.

Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. **Journal of Clinical Psychology, 62**(10), 1231-1244.

Eagly, A. H. (2013). Sex Differences in Social Behavior: A Social-Role Interpretation. Psychology Press.

Eimers, M. T., & Pike, G. R. (1997). Minority and nonminority adjustment to college: Differences or similarities?. Research in Higher Education, 38(1), 77-97.

Friborg, O., Hjemdal, O., Rosenvinge, J.H. & Martinussen M. (2003). A new rating scale for adult resilience: what are the central protective resources behind healthy adjustment? International Journal of Methods in Psychiatric Research, 12, 65-76.

Friedlander, L. J., Reid, G. J., Cribbie, R., & Shupak, N. (2007). Social support, self-esteem, and stress as predictors of adjustment to university among first-year undergraduates. Journal of College Student Development, 48(3), 259-274.

Galatzer-Levy, I. R., Burton, C. L., & Bonanno, G. A. (2012). Coping flexibility, potentially traumatic life events, and resilience: A prospective study of college student adjustment. Journal of Social and Clinical Psychology, 31(6), 542.

Hamilton, S. F., & Hamilton, M. A. (2006). School, work, and emerging adulthood. In J. J. Arnett & J. L. Tanner (Eds.), Emerging adults in America: Coming of age in the 21st century (pp. 440-473). Washington, DC: American Psychological Association.

Hartman, J.L., Turner, M.G., Daigle, L.E., Exum, L. & Cullen, F.T. (2008). Gender differences in protective factors: Implications for understanding resiliency. International Journal of Offender Therapy and Comparative Criminology, 53, 250-278.

Hurst, C. S., Baranik, L. E., & Daniel, F. (2013). College student stressors: A review of the qualitative research. Stress and Health, 29(4), 275-285.

Jackson, K. M., Sher, K. J., & Park, A. (2005). Drinking among college students. In Recent developments in alcoholism (pp. 85-117). Springer US.

Kretchmar, J. (2009). Gender Socialization: Sex, Gender, and Sexuality. Research Starters.

Larose, S., & Boivin, M. (1998). Attachment to parents, social support expectations, and socioemotional adjustment during the high school-college transition. Journal of Research on Adolescence, 8(1), 1-27.

Lindsey, L. L. (2015). Gender roles: A sociological perspective. Routledge.

Luthans, F., Vogelgesang, G. R., & Lester, P. B. (2006). Developing the psychological capital of resiliency. Human Resource Development Review, 5(1), 25-44.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. Child Development, 71(3), 543-562.

Maples, L. A., Park, S. S., Nolen, J. P., & Rosén, L. A. (2014). Resilience to childhood abuse and neglect in college students. Journal of Aggression, Maltreatment & Trauma, 23(10), 1001-1019.

Masten, A. (2001). Ordinary Magic: Resilience processes in development. American Psychologist, 56, 227-238.

Masten, A. S. (2013). Risk and resilience in development. In The Oxford Handbook of Developmental Psychology, Vol. 2.

Meeuwisse, M., Severiens, S. E., & Born, M. P. (2010). Learning environment, interaction, sense of belonging and study success in ethnically diverse student groups. Research in Higher Education, 51(6), 528-545.

Mohr, D. & Rosén, L.A. (2012). The Social and Emotional Resources Inventory: A comprehensive measure of protective factors. Unpublished master's thesis, Colorado State University, Colorado.

Mohr, D., & Rosén, L. A. (2016). The Impact of Protective Factors on Posttraumatic Growth for College Student Survivors of Childhood Maltreatment. Manuscript submitted for publication.

National Student Clearinghouse Research Center (2016). Snapshot Report – Persistence and Retention [PowerPoint slides]. Retrieved from https://nscresearchcenter.org/wp-content/uploads/SnapshotReport22-PersistenceRetention.pdf

Newcomb, M. D., & Bentler, P. M. (1987). Changes in drug use from high school to young adulthood: Effects of living arrangement and current life pursuit. Journal of Applied Developmental Psychology, 8(3), 221-246.

Nora, A., & Cabrera, A. F. (1996). The role of perceptions of prejudice and discrimination on the adjustment of minority students to college. The Journal of Higher Education, 119-148.

Nordstrom, A. H., Goguen, L. M. S., & Hiester, M. (2014). The Effect of Social Anxiety and Self-Esteem on College Adjustment, Academics, and Retention. Journal of College Counseling, 17(1), 48-63.

Ogg. J.A., Brinkman, T.M., Dedrick, R.F. & Carlson, J.S. (2010). Factor structure and invariance across gender of the Devereux Early Childhood Assessment proactive factor scale. School Psychology Quarterly, 25, 107-118.

Read, J. P., Ouimette, P., White, J., Colder, C., & Farrow, S. (2011). Rates of DSM－IV－TR trauma exposure and posttraumatic stress disorder among newly matriculated college students. Psychological Trauma: Theory, Research, Practice, and Policy, 3(2), 148.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. Journal of Personality and Social Psychology, 67(6), 1063.

Seidman, A. (2005). Minority student retention: Resources for practitioners. New directions for institutional research, 2005(125), 7-24.

Shirley, L.A. (2011). Resilience to childhood abuse and neglect in college students. Unpublished doctoral dissertation, Colorado State University, Colorado.

Shirley, L.A. & Rosén, L.A (2010). Measuring resilience to childhood maltreatment in college students. Unpublished master' s thesis, Colorado State University, Colorado.

Sun, J. & Stewart, D. (2007). Age and gender effects on resilience in children and adolescents. International Journal of Mental Health Promotion, 9, 16-25.

Towbes, L. C., & Cohen, L. H. (1996). Chronic stress in the lives of college students: Scale development and prospective prediction of distress. Journal of Youth and Adolescence, 25(2), 199-217.

Triplett, K. N., Tedeschi, R. G., Cann, A., Calhoun, L. G., & Reeve, C. L. (2012). Posttraumatic growth, meaning in life, and life satisfaction in response to trauma. Psychological Trauma: Theory, Research, Practice, and Policy, 4(4), 400.

Welles, T. L. (2012). An analysis of the Academic Success Inventory for College Students: Construct validity and factor scale invariance. Dissertation Abstracts International, 72, 5597.

Werner, E. E., & Smith, R. S. (1992). Overcoming the odds: High risk children from birth to adulthood. Cornell University Press.

Woolley, M. E., & Grogan-Kaylor, A. (2006). Protective family factors in the context of neighborhood: Promoting positive school outcomes. Family Relations, 55(1), 93-104.

APPENDICES

APPENDIX A

College Chronic Life Stress Survey (CCLSS)

Using the list of items below, determine whether the event made you feel stressed, upset, or worried at least two or three times a week for the past month.

For each item, rate how much the event bothered you from just a little (1) to very much (3).

1. Roommate conflict
2. Homesick
3. Friend conflict
4. Writing papers
5. Dieting
6. Money
7. Long-distance relationship
8. Juggle school/job
9. Time—extracurricular activity
10. Noisy dorm
11. No car
12. Underweight
13. College major
14. Miss distant friends
15. Poor class work
16. Car trouble/commuting
17. Family illness
18. Not having a partner
19. Job pressure
20. Privacy
21. Not enough sex
22. Friend with problem
23. Behind in school work
24. Dislike appearance
25. New living conditions
26. Problem with bf/gf/partner
27. Parental pressure
28. Not having friends
29. Time management
30. Studying
31. Not enough exercise
32. Conflict with parents
33. Academic performance
34. Poor job performance
35. Overweight

36. Amount of sex with bf/gf/partner
37. Don't fit in
38. Missing class
39. Drug/alcohol concerns
40. Schoolwork overload
41. Conflicts in dorm
42. Parents with problems
43. Tuition/bills money
44. Sports performance
45. Conflict with Ex
46. Study and do poorly
47. Being sick
48. Sibling conflict
49. Where you live
50. Time with bf/gf/partner
51. Difficult class
52. Weight gain
53. Unsure of job future
54. Not enough sleep

Subscales:
Academic: 4, 13, 15, 23, 30, 33, 38, 40, 46, 51
Peer Relation: 1, 3, 14, 19, 22, 28, 34, 37, 41
Family Relation: 2, 17, 27, 32, 42, 48
Romantic Relation: 7,18,21,26, 36, 45, 50
Lifestyle: 6, 8, 9, 10, 11, 16, 20, 25,29,43,49, 53
Health: 5, 12, 24, 31, 35, 39, 44, 47, 52, 54

APPENDIX B

College Adjustment Questionnaire (CAQ)

Listed below are some statements that describe how college students might be feeling about their experience with college. **Please use the rating scale below to indicate how accurately each statement describes you at this point in time.** Please read each statement carefully, and then circle the number that corresponds to how accurately the statement describes you.

0: Very Inaccurate
1: Moderately Inaccurate
2: Neither Inaccurate nor Accurate
3: Moderately Accurate
4: Very Accurate

Right now:	Very Inaccurate					Very Accurate
1. I am succeeding academically	0	1	2	3	4	5
2. I don't have as much of a social life as I would like	0	1	2	3	4	5
3. I feel that I am doing well emotionally since coming to college	0	1	2	3	4	5
4. I am happy with my social life at college	0	1	2	3	4	5
5. I am doing well in my classes	0	1	2	3	4	5
6. I am happy with how things have been going in college	0	1	2	3	4	5
7. I am happy with the grades I am earning in my classes	0	1	2	3	4	5
8. I feel that I am emotionally falling apart in college	0	1	2	3	4	5
9. I have had a hard time making friends since coming to college	0	1	2	3	4	5
10. I am as socially engaged as I would like to be	0	1	2	3	4	5
11. I have felt the need to seek emotional counseling since coming to college	0	1	2	3	4	5
12. I am meeting my academic goals	0	1	2	3	4	5
13. I have performed poorly in my classes since starting college	0	1	2	3	4	5
14. I am satisfied with my social relationships	0	1	2	3	4	5

APPENDIX C

Social and Emotional Resources Inventory (SERI)

The following statements describe things that may or may not have been true of you while you were growing up. **Please use the rating scale below to indicate how accurately each statement describes you.** Please read each statement carefully, and then circle the number that corresponds to how accurately the statement describes you.

1: Very Inaccurate
2: Moderately Inaccurate
3: Neither Inaccurate nor Accurate
4: Moderately Accurate
5: Very Accurate

I am:	Very Inaccurate				Very Accurate
1. I am intelligent	1	2	3	4	5
2. I receive warm parenting	1	2	3	4	5
3. My school meets students' academic needs	1	2	3	4	5
4. I have strong self-confidence	1	2	3	4	5
5. I have a talent (i.e., talented in sports, music, drama, academics, etc.)	1	2	3	4	5
6. I have positive connections to my extended family (e.g., grandparents, aunts, uncles, etc.)	1	2	3	4	5
7. I have a strong sense of faith or spirituality	1	2	3	4	5
8. I feel connected to a parent/guardian	1	2	3	4	5
9. My family does not have to worry excessively about money	1	2	3	4	5
10. I am smart	1	2	3	4	5
11. My parents are loving	1	2	3	4	5
12. I have an adult mentor other than my parents	1	2	3	4	5

13. I am receiving a good education	1	2	3	4	5
14. I feel positively about myself	1	2	3	4	5
15. I am skilled in at least one activity	1	2	3	4	5
16. My faith or spirituality is important to me	1	2	3	4	5
17. My family is financially comfortable	1	2	3	4	5
18. I am bright	1	2	3	4	5
19. I am emotionally close to my parents	1	2	3	4	5
20. An adult outside of my family motivates me to succeed	1	2	3	4	5
21. My school has skilled teachers	1	2	3	4	5
22. I have high self-esteem	1	2	3	4	5
23. My family has access to adequate health care	1	2	3	4	5
24. Others notice my special ability in an activity (e.g., sports, music, drama, academics, etc.)	1	2	3	4	5
25. I can depend on family members other than my parents and siblings	1	2	3	4	5
26. Religion/spirituality is a central part of my life	1	2	3	4	5
27. I have a parent/guardian I can rely on	1	2	3	4	5
28. My family is able to afford the things we need	1	2	3	4	5
29. I am involved in groups that serve others	1	2	3	4	5
30. My parents are emotionally available	1	2	3	4	5
31. There is an adult outside my family who cares about me	1	2	3	4	5
32. I believe in myself	1	2	3	4	5
33. My family and I have access to good health services	1	2	3	4	5
34. I have a skill that I am proud of	1	2	3	4	5
35. I feel that my extended family is there for me	1	2	3	4	5
36. I attend religious services	1	2	3	4	5
37. I am connected to my family	1	2	3	4	5
38. I am involved in a group that does good things for the community	1	2	3	4	5
39. I am doing well academically	1	2	3	4	5
40. My parents care about me	1	2	3	4	5

41. Someone other than family makes sure that I am okay	1	2	3	4	5
42. I learn a lot at school	1	2	3	4	5
43. I view myself as a capable individual	1	2	3	4	5
44. I feel that there is something special I can do (i.e., I am talented at something)	1	2	3	4	5
45. My extended family is there for me when my parents cannot be	1	2	3	4	5
46. I believe in a higher power or spiritual energy	1	2	3	4	5
47. My parent(s) make enough money at their job for my family to be able to live comfortably	1	2	3	4	5
48. I am involved with a group or organization that focuses on helping others	1	2	3	4	5
49. I am seen as "talented"	1	2	3	4	5
50. I take comfort in my faith or spirituality	1	2	3	4	5

APPENDIX D

Subscale Factor Structure of the Items Included on the SERI

Intelligence

1. I am intelligent
10. I am smart
18. I am bright
39. I am doing well academically

Parenting Practices

2. I receive warm parenting
11. My parents are loving
27. I have a parent/guardian I can rely on
30. My parents are emotionally available
40. My parents care about me

Parent Connections

8. I feel connected to a parent/guardian
19. I am emotionally close to my parents
37. I am connected to my family

Self-Esteem

4. I have strong self-confidence
14. I feel positively about myself
22. I have high self-esteem
32. I believe in myself
43. I view myself as a capable individual

Money

17. My family is financially comfortable
28. My family is able to afford the things we need
47. My parents make enough money at their job for my family to be able to live comfortably

Resources

9. My family does not have to worry excessively about money
23. My family has access to adequate healthcare
33. My family and I have access to good health services

Faith

7. I have a strong sense of faith and spirituality
16. My faith or spirituality is important to me
26. Religion/spirituality is a central part of my life

36. I attend religious services
46. I believe in a higher power of spiritual energy
50. I take comfort in my faith or spirituality

Talent

5. I have a talent
15. I am skilled in at least one activity
24. Others notice my special ability in an activity
34. I have a skill that I was proud of
44. I feel that there is something special I could do
49. I am seen as "talented"

Good Schools

3. My school meets students' academic needs
13. I am receiving a good education
21. My school has skilled teachers
42. I learn a lot at school

Prosocial Adults

12. I have an adult mentor other than my parents
20. An adult outside of my family motivates me to succeed
31. There is an adult outside of my family who cares about me
41. Someone other than my family makes sure that I am okay

Kin Connections

6. I have positive connections to my extended family
25. I can depend on family members other than my parents and siblings
35. I feel that my extended family is there for me
45. My extended family is there for me when my parents cannot be

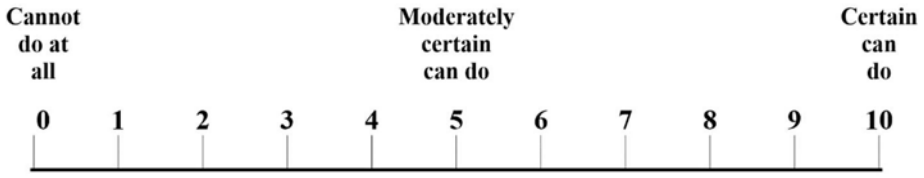
Prosocial Organizations

29. I am involved in groups that serve others
38. I am involved in a group that does good things for the community
48. I am involved with a group or organization that focuses on helping others

APPENDIX E

Coping Self-Efficacy Scale (CSES)

When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following:



1. Break an upsetting problem down into smaller parts
2. Sort out what can be changed, and what cannot be changed
3. Make a plan of action and follow it when confronted with a problem
4. Leave options open when things get stressful
5. Think about one part of the problem at a time
6. Find solutions to your most difficult problems
7. Resist the impulse to act hastily when under pressure
8. Try other solutions to your problems if your first solutions don't work
9. Talk positively to yourself
10. Stand your ground and fight for what you want
11. See things from other person's point of view during a heated argument
12. Develop new hobbies or recreations
13. Make unpleasant thoughts go away
14. Take your mind off unpleasant thoughts
15. Stop yourself from being upset by unpleasant thoughts
16. Keep from feeling sad
17. Keep from getting down in the dumps
18. Look for something good in a negative situation
19. Keep yourself from feeling lonely
20. Visualize a pleasant activity or place
21. Pray or meditate
22. Get friends to help you with the things you need
23. Get emotional support from friends and family
24. Make new friends
25. Do something positive for yourself when you are feeling discouraged
26. Get emotional support from community organizations or resources

APPENDIX F

Life Orientation Test – Revised (LOT-R)

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

1: I agree a lot
2: I agree a little
3: I neither agree nor disagree
4: I disagree a little
5: I disagree a lot

Currently, I feel:

1. In uncertain times, I usually expect the best.
2. It's easy for me to relax.
3. If something can go wrong for me, it will.
4. I'm always optimistic about my future.
5. I enjoy my friends a lot.
6. It's important for me to keep busy.
7. I hardly ever expect things to go my way.
8. I don't get upset too easily.
9. I rarely count on good things happening to me.
10. Overall, I expect more good things to happen to me than bad.

APPENDIX G

Trauma History Questionnaire (THQ)

Have you ever experienced any of the following events? (Check all that apply)

1) Death of a close loved one _____
- □ If yes, rate the severity of this event in terms of personal distress (circle number).

0 – Not at all 1 – Very small 2 – Small 3 – Moderate 4 - Extreme

2) Very serious medical problem _____
- □ If yes, rate the severity of this event in terms of levels of distress (circle number).

0 – Not at all 1 – Very small 2 – Small 3 – Moderate 4 - Extreme

3) Close friend, significant other, or family member experienced a serious medical condition ___
- □ If yes, rate the severity of this event in terms of levels of distress (circle number).

0 – Not at all 1 – Very small 2 – Small 3 – Moderate 4 - Extreme

4) Accident that led to serious injury to yourself or someone close to you _____
- □ If yes, rate the severity of this event in terms of levels of distress (circle number).

0 – Not at all 1 – Very small 2 – Small 3 – Moderate 4 - Extreme

5) Place of residence being damaged by fire or other natural causes _____
- □ If yes, rate the severity of this event in terms of levels of distress (circle number).

0 – Not at all 1 – Very small 2 – Small 3 – Moderate 4 - Extreme

6) Endured a divorce _____
- □ If yes, rate the severity of this event in terms of levels of distress (circle number).

0 – Not at all 1 – Very small 2 – Small 3 – Moderate 4 - Extreme

7) Physically assaulted _____
- □ If yes, rate the severity of this event in terms of levels of distress (circle number).

0 – Not at all 1 – Very small 2 – Small 3 – Moderate 4 - Extreme

8) Sexually assaulted _____

- If yes, rate the severity of this event in terms of levels of distress (circle number).

  0 - Not at all 1 - Very small 2 - Small 3 - Moderate 4 - Extreme

9) Victim of a crime such as robbery or mugging _____

- If yes, rate the severity of this event in terms of levels of distress (circle number).

  0 - Not at all 1 - Very small 2 - Small 3 - Moderate 4 - Extreme

10) Being stalked _____

- If yes, rate the severity of this event in terms of levels of distress (circle number).

  0 - Not at all 1 - Very small 2 - Small 3 - Moderate 4 - Extreme

APPENDIX H

Demographic Questionnaire

1. What is your age?_____years old

2. What is your major? _____

3. What is your gender? (please choose one)
   ____Male
   ____Female
   ____Transgender

4. What race/ethnicity do you identify with the most? (please choose one)
   ____African American/Black
   ____Alaska Native
   ____American Indian/Native American
   ____Asian American
   ____Caucasian/White
   ____Hawaiian/Pacific Islander
   ____Latino or Hispanic
   ____Middle Eastern American
   ____Other (Please specify:_____)

5. What is your sexual orientation? (please choose one)
   ____Heterosexual (sexually interested in the opposite sex)
   ____Homosexual (sexually interested in the same sex)
   ____Bisexual (sexually interested in both the opposite and same sex)
   ____Other (Please specify:_____)

6. What is your annual family household income? (please choose one)
   ____Less than $25,000
   ____$25,000 to $34,999
   ____$35,000 to $49,999
   ____$50,000 to $74,999
   ____$75,000 to $99,999
   ____$100,000 to $149,999
   ____$150,000 or more

7. Are you a full time student or a part-time student? (please choose one)
   ____Full-time
   ____Part-time

8. How many credits are you currently taking?_____credits

APPENDIX I

Consent to Participate in a Research Study
Colorado State University

TITLE OF STUDY
The Role of Protective Factors in Predicting College Adjustment

PRINCIPAL INVESTIGATOR
Evelinn Borrayo, Ph.D., Psychology Department
205 Behavioral Sciences Building, (970) 491-5925
Evelinn.Borrayo@colostate.edu

CO-PRINCIPAL INVESTIGATORS
Nicole Olivas
Masters Candidate, Psychology Department
336 Behavioral Sciences Building, (970) 286-0848
nicole.olivas@colostate.edu

WHY AM I BEING INVITED TO TAKE PART IN THIS RESEARCH?
You are being asked to participate in this study because you are currently enrolled at Colorado State University and we are interested in learning more about how first year undergraduate students adjust to college.

WHO IS DOING THE STUDY?
The study is being conducted by doctoral student, Nicole Olivas, under the guidance of her advisor, Evelinn Borrayo, Ph.D.

WHAT IS THE PURPOSE OF THIS STUDY?
The purpose of the study is to better understand factors that aid in successful college adjustment. This study is also concerned with looking at whether different factors that support college adjustment benefit men more than women, and vice versa.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?
You will be asked to complete the study online at a time and place that is convenient for you. Participation will take approximately a half an hour of your time.

WHAT WILL I BE ASKED TO DO?
You will be asked to complete two questionnaires regarding your adjustment to college and protective factors.

ARE THERE REASONS WHY I SHOULD NOT TAKE PART IN THIS STUDY?
Participation requires that you are at least 18 years of age, a first-year undergraduate student, and currently enrolled in college courses.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

There are no known risks associated with the procedures performed in this study. It is not possible to identify all potential risks in research procedures, but the researcher(s) have taken reasonable safeguards to minimize any known and potential, but unknown, risks. If participation causes you any emotional distress, please feel free to contact the CSU Health Network Counseling Services at (970) 491-6053.

ARE THERE ANY BENEFITS FROM TAKING PART IN THIS STUDY?

There are no direct benefits from your participation in this study, although it will help to better understand how individuals adjust to college in their first semester and what best serves as protective factors during this transition.

DO I HAVE TO TAKE PART IN THE STUDY?

Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

WHO WILL SEE THE INFORMATION THAT I GIVE?

You have a right to privacy and all information provided in this study will remain anonymous and confidential. No identifying information will appear on any material. We are not obtaining your name or other identifiable data from you, so no one, not even members of the research team, will be able to identify you or your data. Your information will be combined with information from other people taking part in the study. The results of this study may be published in scientific journals or presented at psychological conferences. You will not be identified in any of these written materials.

WILL I RECEIVE ANY COMPENSATION FOR TAKING PART IN THIS STUDY?

If you are taking this survey to fulfill a PSY 100 course requirement, you will receive a 1/2 experimental credit for your participation.

WHAT HAPPENS IF I AM INJURED BECAUSE OF THE RESEARCH?

The Colorado Governmental Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury.

WHAT IF I HAVE QUESTIONS?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigator, Dr. Evelinn Borrayo at 970-491-3555 or Nicole at nicole.olivas@colostate.edu or at 970-286-0848. You are free to print out a copy of this consent form to take with you for your records.

If you have read and understood the above information and consent to participating in the study, please click the next button below to indicate your consent.

Please make sure you have a half an hour to complete these surveys since you will not be able to stop and come back to the surveys at a later time.

APPENDIX J

Debriefing Information

Project Title: The Role of Protective Factors in Predicting College Adjustment

Investigators:
Principal Investigator
Evelinn Borrayo, Ph.D., Psychology Department
Phone: (970) 491-5925
Office: Behavioral Sciences 205
Email: Evelinn.Borrayo@colostate.edu

Co-Principal Investigator
Nicole Olivas
Masters Candidate, Psychology Department
Phone: (970) 286-0848
Office: 336 Behavioral Sciences Building
Email: nicole.olivas@colostate.edu

Purpose of the Study

This is a research study about how protective factors influence successful college adjustment. We are interested in understanding which protective factors best predict successful college adjustment. In addition, we are interested in whether men and women benefit from different protective factors and how such differences impact college adjustment. Your participation will help us to further understand how protective factors can influence college adjustment during the first semester of the first year of undergraduate schooling. By participating in the present study, you are helping to increase knowledge on successful college adjustment which may help to better understand in increase undergraduate retention rates. In doing so, your participation has the ability to help conduct further studies that evaluate how best to develop and employ protective factors in order to succeeding in college adjustment. Through continued research on this topic, the psychology field has the potential to increase awareness of the importance of protective factors and develop interventions that help individuals best make use of personal protective factors.

Methods/Procedures

As a participant in this study you were asked to complete a college adjustment questionnaire, which measured your academic adjustment, social adjustment, and emotional adjustment in relation to your college experience. Afterwards, you were asked to complete a social and emotional resources questionnaire. This measure assesses the presence of protective factors from your childhood. Protective factors are strategies that restore efficacy during times of stress, allowing individuals who possess such factors to be more likely to overcome adversity and hardship. The survey methods in this study were used as a means of quick and efficient data

collection. This requires less time for participants to complete the study, as well as less time for the researchers to obtain data.

Confidentiality

All the responses you gave in this study are confidential, and can't be traced to you in any way. Your information will be combined with information from other people taking part in the study and your individual answers will not be taken into account unless combined with other people's answers. When we write about the study to share it with other researchers, we will write about the combined information we have gathered. You will not be identified in these written materials.

We would like to thank you for participating in this study. If you are interested in learning about the results of this study once the data has been collected, analyzed, and interpreted, please notify the researchers. Since we are currently running this study with more people, we would also like to ask that you don't tell others about the specific content of the study because they may answer questions differently based on this knowledge. You may wish to print a copy of this debriefing form for your personal records.

If you have experienced any negative emotional effects from the completion of this study and are in need of additional support, please contact:

CSU Health Network - Counseling Services
Aylesworth Building NW
800 Meridian Drive
970-491-6053