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Risk and Protective Factors Explaining First Year College Adjustment

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Methods

A correlation design was utilized. An online survey was administered to first-year college students at a large semi-rural state university. In total, 348 students completed the survey about their experience adjusting to college. A shortened version of the Student Adaptation to College Questionnaire measured the dependent variable. Socio-demographic and psychosocial scales and items measured independent and control variables. Three regression models were employed: 1. risk factors, 2. risk and protective factors, and 3. risk, protective, and control factors.

Results

Risk factors significantly associated with college adjustment included psychiatric medication, fearful-avoidant attachment, and anxious-preoccupied attachment. Protective factors that significantly improved first year college adjustment were resilience, academic self-efficacy, and optimism. Disability was the only control factor that influenced college adjustment. The final model accounted for 54% of the variance. Notably, risk factors lost their significance after adjusting for protective factors.

Conclusions

This study is novel to this research domain. It is the first to frame contributing factors to first year college adjustment in terms of risk and protective factors and to focus only on first-year students. This study demonstrates that strengths can compensate for vulnerabilities. A clinical implication of these findings is that mental health professionals need to assess and enhance protective factors in an effort to improve first year college adjustment, which is likely to impact graduation rates.

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Marissa Kahn

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CHAPTER 1

CONCEPTUAL FRAMEWORK: RISK AND PROTECTIVE FACTORS EXPLAINING FIRST YEAR COLLEGE ADJUSTMENT

Introduction:

It is estimated that a third of American youth between the ages of 18-24 are currently enrolled in college (U.S. Bureau of the Census, 2007). There are an estimated three million American students entering their first year of college (Snyder & Dillow, 2015). This record-high student enrollment is matched with first-year students entering college who are reporting with increased confidence that they will successfully complete their degree requirements (Mattanah, Hancock, & Brand, 2004; Strage & Brandt, 1999). Despite this increased confidence, one in three first-year college students do not return for their sophomore year (U.S. News & World Report, 2013). This is an alarming new phenomenon. We are seeing unprecedented levels of U.S college and university student enrollment, yet fewer students are actually graduating. Fifty percent or more of student attrition occurs during the first year in college (Dellon, 2014). The stresses of the first year of college are made evident in an even more concerning statistic than attrition: 40% of all undergraduate suicides are committed by students in their first year of college (Davis & DeBarros, 2006).

The first year is a difficult period with a number of stressors that are unique to entering college. These stressors include being away from home for the first time, living with a new roommate, experiencing challenging academics, and having significant financial burden (Smith & Wertlieb, 2005). To further complicate these numerous challenges, first-year students entering college are reporting significantly higher levels of emotional stress than previously indicated (Klein, 2010). There is a parallel between the growing amount of emotional stress on campus and the growing number of first-year students entering college. With this expansion of

the first-year student population, there are risk factors that contribute to college adjustment. For example, populations of first-year students on psychiatric medication and first-generation students are increasing. Both of these first-year student populations present with stressors related to college adjustment generally as well as unique disadvantages and heightened stressors related to factors associated with their social and psychological background history. Other socio-demographic risk factors associated with first year college adjustment include family income, race, gender, and region (e.g., urban or rural). Given that some first-year students are entering college with social and psychological disadvantages, in many cases lacking the structure they previously had at home, they may resort to ineffective ways of coping with stress, such as substance abuse, self-harm, withdrawal, and isolation.

The first year can be a precarious transitional period for students as they face a number of adaptation challenges away from home while adjusting to college for the first time in their lives. This difficult task of first year college adjustment refers to how successfully a student meets educational demands, commits to the institutional goals, deals with interpersonal experiences, and manages psychological distress during their first year of college (Baker & Siryk, 1989). When first-year students encounter these stressful and anxiety-provoking social, psychological, and academic obstacles, the emotional stress of adjustment is compounded for students with vulnerabilities. Yet a number of first-year students adjust to college successfully with low levels of stress.

In an effort to explain why some students are more effectively able to adapt to their first year than other students, various studies identify protective factors that contribute to college adjustment. Some research points toward resilience—the process by which individuals achieve adaptive functioning in the face of adversity—as an explanation of successful first-year student

adjustment to college. Other protective factors associated with resilience that impact first-year college student adjustment include optimism, self-efficacy, and extraversion. In addition, various theories discuss the tasks of late adolescence and early adulthood, emphasizing the importance of students' forming their own identities and developing intimate relationships (Blos, 1967; Erikson, 1968) to better explain the central concepts of first-year college student adjustment. Theorists suggest that students who have historically had healthy relationships with their caregivers and are able to move away from their caregivers while developing a healthy sense of self are better able to navigate the obstacles that the first year presents. As such, numerous research studies identify the importance of healthy separation-individuation and secure attachment style as predictors of successful first year college adjustment (Blustein, Walbridge, Friedlander, & Palladino, 1991; Lapsley, & Edgerton, 2002; Mattanah, Hancock, & Brand, 2004; Rice et al., 1995).

When examining the risk and protective factors that influence first-year college student adjustment, researchers generally tend to study variables individually rather than from a multivariate perspective. Additionally, these risk and protective factors have been mostly studied for all college students as a unified group without differentiating the first-year students. A greater proportion of students drop out of college in their first year than any other year. With a third of first-year students leaving colleges and universities across the country, there is a need for more focused attention on this population. Enhanced understanding of the risk and protective factors of first year college adjustment will prepare college counseling centers to intervene more appropriately with this population. Early intervention during the first year may be able to prevent college students from dropping out and help them to successfully complete college. In

order to fill this significant research gap, the objective of this study is to examine to what extent these risk and protective factors explain first year college adjustment.

First Year College Adjustment:

First-Year College Student Adjustment Defined

First-year college students today are commonly referred to as the millennial generation, born in the 1980s-2000s. First-year college students of the millennial generation are characterized by their relationship to technology. They use smart phones, carry tablets, and utilize various social media accounts. While millennial first-year college students live in a world of technology that differs from previous generations, they share many of the same obstacles adjusting to their first year of college. The first year of college is a transitional time involving numerous adjustments for students as they emerge from late adolescence into early adulthood. These adjustments range from where they are living to who they are becoming and what they want to do in the future. This is a critical stage characterized by change and growth, where first-year students are searching for themselves and their place in the world (Schulenberg & Maggs, 2002). College students grow and change in all aspects, and these changes can be particularly pronounced during their first year. College adjustment refers to how successfully a student meets educational demands, commits to the institutional goals, deals with interpersonal experiences, and manages psychological distress during their first year of college (Baker & Siryk, 1989).

Rates of First-Year College Student Adjustment

There is growing concern about college retention rates on campuses across the country, with one-third of first-year students not returning for their sophomore year of college (U.S. Bureau of the Census, 2007). According to Bushong (2009), the retention rate among first-year

college students during the 2007-2008 academic year was only 66%, which is the lowest it has been since 1989. A new question on UCLA's annual survey of the nation's entering students at four-year colleges and universities gauged student expectations concerning the amount of time it would take to earn their degree (Wyer, 2012). The survey revealed that 83.4% of first-year college students expected to graduate in four years from the college they had just entered in four years. However, when looking at actual four-year graduation rates from colleges in the survey, it would be expected that only 40.6% would complete their education in four years (Wyer, 2012).

The 2013 National Survey of Counseling Center Directors (NSCCD) revealed that 62% of students indicated that counseling services helped them remain in school (Gallagher, 2013). Counseling centers play a major role in first-year college student adjustment and college retention. College counseling services are especially important in light of the increasing numbers of first-year students on campus struggling with their mental health. According to UCLA's annual survey of the nation's entering students at four-year colleges and universities, fewer students than ever before are reporting above-average emotional health, with only 51.9% of students reported that their emotional health was in the "highest 10%" or "above average," a significant decline from the 63.6% who placed themselves in those categories when self-ratings of emotional health were first measured in 1985 (Klein, 2010). NSCCD results reveal that 95% of college counseling center directors report greater numbers of students presenting with severe psychological problems, indicating a rise in crises requiring immediate response, psychiatric medication issues, illicit drug use, and self-injury (Gallagher, 2013). Reasons for these growing numbers of students seeking treatment at college counseling centers may be linked to increased family dysfunction, early exposure to drugs, alcohol, and sexual experiences (Gallagher, 2012). In 2013, 91% of centers hospitalized an average of 9.2 students per school for psychological

reasons (Gallagher). Notably, this statistic is double the percentage of students hospitalized in

2001 and more than triple the 1994 percentage (Gallagher, 2013).

Results from the NSCCD reveal that 44% of college counseling center clients have

severe psychological problems. Seven percent have impairments that prevent them from

remaining in school. In schools with student populations over 15,000, the percentage of students

is higher, with 59% of clients having severe psychological problems and 9% of clients having

psychological impairments that left them unable to remain in school. In a recent year, college

counseling center directors reported 69 student suicides, with 80% of those students not having

sought counseling center assistance (Gallagher, 2013). This alarming statistic underscores the

demand for further intervention from the college counseling center professionals to target a

larger population of the student body. First-year college students account for 40% of all

undergraduate suicides (Davis & DeBarros, 2006). Findings suggest that of the 69 suicides in

2013, 48% of the students who committed suicide were depressed, 27% had relationship

problems, 16% had academic problems, and 6% had financial problems (Gallagher, 2013).

These are important contributing factors of first year college adjustment that will be examined in

this study to enhance the understanding of college counseling center professionals and provide

insight for further intervention.

Risk Factors of First Year College Adjustment

First-Generation First-Year Students

Approximately 15.9% of entering first-year students are first-generation college students

(Saenz, 2007). There is a significant disparity in college degree attainment between first-

generation college students and students whose parents attended college. Just 27.4% of first-

generation college students earn a degree after four years compared to 42.1% who come from

families with parents who have higher education experience, which is a wide gap of 14.7 percentage points (Franke, Hurtado, Pryor, & Tran, 2011).

First-generation first-year college students not only have to navigate the typical obstacles of first year college adjustment, but also have significant cultural, social, and academic transitions (Pascarella et al., 2004). In this initial year, first-generation students present with more heightened stressors and vulnerabilities than their peers. For example, first-generation students are more likely to be older, have lower incomes, be married, and have dependents than their peers (Nunez & Cuccaro-Alamin, 1998), further complicating first-year adjustment. First-generation students are more likely than non-first-generation students to speak a language other than English at home (16% versus 7%) and more likely to be foreign-born (11% versus 6%) (Choy, 2001).

Given all of these stressors, first-generation college students experience particular difficulty adjusting to their first year of college. Research suggests that first-generation college students struggle more with the transition from high school to college than their peers with parents who attended college (Rendon, Hope, & Associates, 1996; Pascarella et al., 2004; Terenzini et al., 1996). Multiple studies reveal that first-generation college students are more likely to leave a four-year institution at the end of their first year than students whose parents attended college (Pascarella et al., 2004; Warburton, Bugarin, & Nunez, 2001; Nunez & Cuccaro-Alamin, 1998). According to data from the National Center for Education Statistics' Beginning Postsecondary Study (BPS:96/01), low-income, first-generation students were nearly four times more likely—26-27%—to leave higher education after their first year than students who had neither of these risk factors. In addition, six years later, nearly half (43%) of low-

income, first-generation students had left college without earning their degrees. Among those who left, nearly two-thirds (60%) did so after their first year (Engle & Tinto, 2008).

Low-Income First-Year Students

While the cost of college continues to increase, approximately 53.1% of first-year students are utilizing loans to pay for college and 73.4% of students report receiving grants and scholarships (Klein, 2010). Insufficient financial aid can interfere with low-income students' academic and social integration and persistence decisions (Cabrera, Nora & Castaneda, 1992). Low-income first-year students are likely not to receive the same information and encouragement from their family members, who have limited understanding of higher education and the financial aid process (Engle & Tinto, 2008). First-year students from low-income families do not enter college at the same rate as more affluent students. Their socioeconomic status impacts not only *if* low-income students attend college but also *how* they adjust to their first year of college.

Once these low-income first-year students enter their first year of college there are a variety of obstacles they are likely to face based on their socioeconomic status in addition to the standard obstacles of first year college adjustment. For example, low-income students are more likely to work while in college. This additional outside work requires their focus to be split between work and college (Bozick, 2007). Low-income students more often must leave higher education for the workforce to meet the financial obligations of their families (The Journal of Blacks in Higher Education Foundation, 2004). Those first-year college students from low-income families who do remain in college are still at a disadvantage because they are more likely to be less academically prepared due to disparities in educational opportunities. Given these numerous hurdles, low-income first-year students attending college remain at a disadvantage and

leave after their first year at higher rates than their peers (Muraskin & Lee, 2004). Not only are low-income students less likely than their wealthier peers to be enrolled in college, they are also less likely to obtain their degree three years after their first year (Choy, 2001).

Race

On college campuses, low-income students disproportionately belong to minority groups (The Journal of Blacks in Higher Education Foundation, 2004). There are wide disparities in college degree attainment by race/ethnicity. Only 19% of African American and 12% of Hispanics (of any race) between the ages of 25 and 29 have a college degree, while that number is 37% for whites (U.S. Census Bureau, 2009). In fact, college degree attainment gaps are increasing as opposed to decreasing (Astin & Oseguera, 2004; Kane, 2004). First-year students entering four-year institutions who identified as Latino/a, African American, and American Indian made up only 13.5% of the college student population (Sax et al., 2004). Asian Americans and white students have the highest rate of four-year degree completion (44.9% and 42.6%, respectively), compared to the rates of Latino/a (25.8%), African American (21.0%), and American Indian students (16.8%).

Minority students are among those college students most at-risk for attrition and poor adjustment to college (Fischer, 2007). While minority first-year college students experience the common stressors of college adjustment, they also experience heightened forms of stress related to their minority status that challenge their emotional, psychological, and physical health (Greer & Chwalisz, 2007; Sanders Thompson, 2002). First-year college students who are undocumented immigrants face additional difficulties adjusting to college. Research suggests that first-year students of color attending predominantly white colleges are negatively impacted by racial discrimination (Eimers & Pike, 1996; Smedley, Myers, & Harrell, 1993). The

prejudice and discrimination faced by first-year minority students affects their social and academic adjustment to college (Nora & Cabrera, 1996).

Gender

Male and female first-year college students adjust to college differently. Research suggests that gender impacts college adjustment, with female students at greater risk of difficult college adjustment. Scholars explain that the developmental processes for male and female college students may differ in that women depend more on relationships and socializing experiences to assist in adjustment to college (Kenny & Rice, 1995).

The Enochs and Roland (2006) study revealed gender differences in college adjustment, indicating that men reported significantly higher levels of adjustment than women. Female first-year college students are found to be more likely to have greater levels of depression and to struggle with adjustment during their first-year of college (Alfred-Liro & Sigelman, 1998). In fact, the UCLA freshman norms study revealed that female students were far less likely to report high levels of emotional health than male students (45.9% versus 59.1%, a 13.2% age-point difference). Women were also more than twice as likely as men to feel frequently "overwhelmed by all I had to do" as high-school seniors (Klein, 2010).

Psychiatric Medication

The 2013 NSCCD revealed that 88% of college counseling center directors report a steady increase of first-year college students arriving on campus who are already on psychiatric medication (Gallagher, 2013). Psychological disorders such as depression, bipolar disorder, and schizophrenia first manifest themselves in late adolescence or early adulthood (Chisolm, 1998). Fifteen years ago, 9% of students were treated with psychiatric medication. In 2011, by contrast, 23% of students were on psychiatric medication (Gallagher, 2011). As a result of the advent of

new psychiatric medications, first-year college students with psychological issues who would otherwise not be able to attend college are now capable of attending. However, the success of these students is dependent on medication management and psychological support.

The Sher, Wood, and Gotham (1996) longitudinal study of psychological distress in college revealed that while distress levels peaked during the first year and then later declined for a majority of students, there was a subset of students who experienced severe, chronic levels of distress that did not abate (Kitzrow, 2003). First-year college students on psychiatric medicine for severe psychopathology are at risk for increased difficulty adjusting to college. The Kessler, Foster, Saunder, and Stang (1995) study revealed that 5% of college students prematurely ended their education due to psychiatric disorders. The authors estimated that 4.29 million more people in the United States would have graduated from college if not for psychiatric disorders.

First-Year Students from Large Urban High Schools or Small Rural Communities

First-year students from both large urban high schools and small rural communities are deemed at-risk for difficult first year college adjustment when adapting to a new environment that is starkly different from where they originate. These first-year students are at an increased risk of leaving college potentially due to perceived lack of person-environment fit and less coping efficacy (Hutz & Martin, 2007).

First-year college students from large urban high schools face significant barriers to college, including little access to both social and financial capital (Roderick, Nagaoka, Coca & Moeller, 2008). Results from the Camburn (1990) study on college completion among students from high schools located in large metropolitan areas found that high school graduates from large urban high schools who are from lower socioeconomic levels of society experience more difficulty completing four-year degrees than their peers from higher social classes. Additionally,

the study revealed that graduates of large urban high schools where minorities are the dominant race experience more difficulty obtaining college degrees than graduates from high schools where whites are the majority.

An even smaller proportion of first-year students from small rural communities attend college than urban youth (Ingels, Curtin, Kaufmann, Alt, & Chen, 2002). First-year college students from small rural communities face adversity in adjusting to college as they adapt to a new culture. Oberg (1960) defined "culture shock" as the "anxiety that results from losing all of our familiar signs and symbols of social intercourse" (p. 177). Building on Oberg's work, Bennett (1998) coined the term "transition shock," defining it as "a state of loss and disorientation precipitated by a change in one's familiar environment that requires adjustment" (p. 216). Most first-year college students experience some degree of transition shock, but students from small rural communities may experience more culture shock, which compounds the difficulty adjusting to the first year of college.

Insecure Attachment

Multiple research studies point toward attachment style as a significant predictor of college student adjustment (Blustein, Walbridge, Friedlander, & Palladino, 1991; Friedlander & Siegel, 1990; Hoffman, 1984; Lapsley & Edgerton 2002; Lapsley, Rice, & Shadid, 1989, Rice 1996). Bowlby and Ainsworth (1991) suggest that internal working models of attachment established during early life influence expectations and behaviors in adulthood. Ainsworth researched the attachment experience of infants and developed the Infant Strange Situation Observation (Ainsworth, Blehar, Waters, & Wall, 1978), the laboratory portion of her study assessing separation and reunion behaviors between mother and infant. This research led Ainsworth to formulate three categories of infantile attachment: secure, avoidant, and resistant-

ambivalent. Main and Solomon (1986) later added a fourth category of attachment: disorganized/disoriented. Mary Main built on this attachment research by exploring how these attachment categories predict adult attachment patterns. George, Kaplan and Main (1985) created the Adult Attachment Interview, a semi-structured interview in which adults describe their relationship with their parents in addition to their experiences of loss, rejection, and separation during early childhood (Slade, 2000). The four adult attachment styles are: secure-autonomous, dismissing, preoccupied, and unresolved-disorganized. These attachment styles all influence the adjustment to the first year of college in which adolescents work to navigate the new conditions and challenges of higher education.

Protective Factors of First Year College Adjustment

Secure Attachment

Numerous studies demonstrate that students with secure attachment styles predict higher levels of positive adjustment to college (Mattanah, Hancock, & Brand, 2004; Bradford & Lyndon, 1993; Holmbeck & Wandrei, 1993; Larose & Boivin, 1998; Lapsley & Edgerton 2002; Schultheiss & Blustein, 1994b). The adjustment to the first year of college can be viewed as a "second strange situation" (Kenny, 1987, 1990; Mattanah, Hancock, & Brand, 2004). In this "second strange situation," securely attached first-year students are best able to explore when they feel they have a base to return to in times of need. Therefore, first-year students adjusting to college who have a secure attachment style will seek support from parents as a means of "emotional refueling." In contrast, first-year students who have strained relationships with their family and insecure attachment styles may lack the secure base from which to successfully separate-individuate and adjust to college.

Healthy Separation-Individuation

Attachment researchers believe that separations arise from the attachment behavioral system (Mayseless, Danieli & Sharabany,1996), which is pronounced when first-year students leave home for college for the first time. Numerous studies identify separation-individuation and attachment level during late adolescence as a predictor of college adjustment (Blustein, Walbridge, Friedlander, & Palladino, 1991; Lapsley, & Edgerton, 2002; Mattanah, Hancock, & Brand, 2004; Rice et al., 1995). These studies postulate that students who have successfully separated-individuated from the household and have secure attachment styles are more likely to experience a positive adjustment to college. Separation-individuation was first conceptualized by Margaret Mahler, who contributed to our understanding of how a child makes attachments to significant others in her life and internalizes those attachments, ultimately developing a sense of self through these relationships. Building on Mahler's theory, Peter Blos (1965) posited that with puberty, there is an echoed repetition of the original stages of separation-individuation.

Blos was a pioneer in defining the inherent struggle of adolescence: the conflict of wishing to be autonomous from parental bonds, and, at the same time, wishing to remain dependent. This conflict is a theme that is often at the center of a first-year student's struggle to adjust to college. For Blos, adolescent development is arrested when the phases of development that build on conflict are not resolved. Adolescents must achieve higher levels of individuation and differentiation than previously reached during childhood. Referencing Mahler (1965), Blos (1967) states, "What is in infancy a hatching from the symbiotic membrane to become an individuated toddler, becomes in adolescence the shedding of family dependencies, the loosening of infantile object ties in order to become a member of society at large, or, simply of the adult world" (p. 165). First-year college students often struggle to navigate how to separate-

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individuate from their families in this "second strange situation" that confronts them during their first year at college. The difficulty of this navigation negatively impacts first-year students' ability to adjust.

According to Blos (1967), adolescent individuation reflects reorganization of the sense of self and emotional disengagement from internalized infantile objects. Adolescents differentiate from their family and individuate into the adult world. One of the main tasks of post-latency adolescence is to begin to emotionally disengage from caregivers. In the case of first-year college students, the frame of ego reference ideally shifts from family to college peers. Adolescents achieve this task by connecting with peers who are also in the process of individuating from the family. Adolescents who fail to differentiate remain infantile and dependent on their family.

First-year students who have enmeshed relationships with their family are inexperienced in navigating obstacles independently and thus struggle to adjust to college. These are the students who have difficulty negotiating the task of beginning to disengage from caregivers and are at risk of remaining infantile and reliant on their family. On the other hand, students who have strained relationships with their family often lack the secure base from which to successfully separate-individuate. Results from the Mattanah, Hancock, and Brand (2004) study suggest that separation-individuation fully mediated the link between attachment and college adjustment for both male and female college students. Thus, while some first-year students who have been coddled may struggle to navigate obstacles autonomously, other first-year students who lack security with family may have increased challenges separating-individuating and difficulty adjusting to college.

Resilience

Frederickson (2003) explains that whereas early theories about resilience described it as an extraordinarily rare trait, more recent research suggests that resilience is a common trait resulting "from the operation of basic human adaptational systems" (Masten, 2001, p. 227). Studies found that people who score high on a self-report index of psychological resilience report experiencing more positive emotions in response to stressors, both in the laboratory and in daily life (Fredrickson et al., 2003). In addition, these resilient people report finding more positive meaning within daily life stressors. The 2003 Fredrickson study revealed that people scoring high on resilience share a set of affect-related traits, including low neuroticism coupled with high extraversion and high openness, which predispose them toward positive affectivity.

Scholars point toward resilience—the process by which individuals achieve adaptive functioning in the face of adversity—as an explanation for successful first-year student adjustment to college. The 2001 Frederickson study investigated U.S. college students in early 2001 and again in the weeks following the September 11th terrorist attacks. According to the study, following the attacks, resilient college students experienced gratitude, interest, love, and other positive emotions. Further findings from this study revealed that positive emotions in the aftermath of crises buffer resilient college students against depression and fuel thriving.

Optimism and self-efficacy are important elements in explaining resilience. Research suggests that individuals who score high on self-efficacy also tend to score high on optimism because these individuals believe they can solve problems, overcome adversity, and take control of events that happen in their life (Reivich & Shatté, 2002). It is important to keep in mind that while optimism and self-efficacy are linked to resilience, they are essentially different concepts. The main distinction between them is that resilience indexes an individual's ability to function in

the face of adversity; optimism and self-efficacy are protective factors that contribute to resilience.

Academic Self-Efficacy

First-year college students who believe in their abilities are better able to navigate the obstacles of adjusting to college. Researchers have increasingly paid attention to the role of academic self-efficacy in first year college adjustment. As Bandura (1997) defined it, academic self-efficacy is "the belief in one's capabilities to organize and execute courses of action required to produce given attainments" (p. 3).

First-year college students who demonstrate academic self-efficacy are more effective in terms of cognitive learning strategies, time management, and regulating their efforts (Chemers, Hu & Garcia, 2001). Additionally, college students high in academic self-efficacy are more likely to experience lower levels of stress (Smith, 1989). Research suggests that college students high in academic self-efficacy demonstrate more successful academic performance and increased persistence in attending to academic tasks. These students report overall better adjustment to college than students low in academic self-efficacy (Bouffard-Bouchard, 1989).

The rationale is that self-efficacy is associated with increased ability to utilize problem-solving and decision-making strategies to use personal resources most effectively, set goals, and view expectations optimistically. Chemers et al. (2001) investigated the impact of optimism and academic self-efficacy on first year college adjustment and found both were strongly correlated directly with academic performance and indirectly with expectation and coping perceptions. Additionally, academic self-efficacy and optimism were associated with classroom performance, and overall satisfaction and commitment to remain in school.

Optimism

The Tusaie et al. (2007) study investigating psychosocial resilience in adolescents revealed that optimism was the strongest influence on psychosocial resilience, followed by social support from family members. Optimism is a protective factor for first-year students as they adjust to college. Situational optimism can be changed more easily than dispositional optimism, which is a stable personality trait (Nonis & Wright, 2003). The Brissette, Scheier, and Carver (2002) study revealed that first-year students' likelihood of reporting greater optimism at the end of first semester was associated with smaller increases in both stress and depression and greater increases in perceived social support during their first year of college adjustment.

Research suggests that optimistic college students report the highest satisfaction with overall quality of life and utilize the most coping styles (Harju & Bolen, 1998). First-year college students who are optimistic are likely to have more successful outcomes academically, socially, and psychologically. Higher levels of academic performance are generally reported for optimistic college students in comparison to their pessimistic peers (Gibbons, Blanton, Gerrard, Buunk, & Eggleston, 2000). In fact, research suggests that an increase in ability will not result in greater performance outcomes for an individual without optimistic expectations (Seligman et al., 1990; Seligman, 1991).

Optimistic expectancies predict more effective reactions during transitions to new academic settings (Chemers, Hu & Garcia, 2001). Research suggests that optimistic students report higher levels of social support and physical wellbeing and lower levels of psychological stress and loneliness (Aspinwall & Taylor, 1992; Chemers, Hu & Garcia, 2001, Scheier & Carver, 1992). The Chemers et al. (2001) study revealed the significant role of self-efficacy and optimism in first-year college students' success and adjustment. The rationale is that optimistic

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students view the world through a lens that leads to successful adjustment. They hold themselves to higher expectations and they view the world without a sense of trepidation (Chemers, Hu & Garcia, 2001). Consequently, the optimistic first-year college students are increasingly happier, healthier, and more adjusted to college and respond to stressors more calmly.

Extraversion

Extraversion shares a similar conceptual framework with optimism. Greater extraversion has been demonstrated to be associated with greater perceived support from peers after the first three months of college (Brissette, Scheier, & Carver, 2002; Asendorpf & Wilpers, 1998). Extraversion is primarily a dimension of interpersonal behavior and is defined as "the dimension underlying a broad group of traits, including sociability, activity, and the tendency to experience positive emotions such as joy and pleasure" (Costa & McCrae 1992, p. 5). Eysenck (1947) theorized that the extraversion dimension of personality might be directly related to academic performance. In contrast to their neurotic peers, extraverted college students appraise stressful situations as challenges, seeing these as opportunities for reward, not for punishment (Gallagher, 1990).

However, these studies correlating extroversion with superior college adjustment are not definitive. Introversion has not been shown to necessarily exclude an individual from success in college. Pritchard and Wilson (2003) point out that some studies suggest that college students who are extraverts adjust better to college (Searle & Ward, 1990) and possess a stronger sense of wellbeing (Demakis & McAdams, 1994), whereas other studies found that college students who are introverts have higher retention rates (Spann, Newman, & Matthews, 1991). Thus, while extroverts tend to possess an array of traits that have been widely shown to support success and

health in higher education, introverts may simply possess equally effective but less obvious styles of coping.

Hypothesis:

Based on the review of the literature in the field of college adjustment, this study examined the following hypothesis: Risk factors negatively impact student adjustment to the first year of college while protective factors positively impact this adjustment.

1) Risk factors include coming from a low-income background, coming from certain regions (e.g., large urban centers, small rural communities), belonging to a minority group, being of female gender, taking psychiatric medication, and having insecure attachment styles.

2) Protective factors include experiencing healthy separation-individuation, demonstrating and cultivating resilience, academic self-efficacy, optimism, secure attachment, and extraversion.

CHAPTER 2

METHODOLOGY

Research Design and Methods:

A correlation study design was utilized to determine the relationship between risk and protective factors among first-year college students. Data to test this relationship were obtained from an online survey administered to first-year college students at a large semi-rural state university.

Participants and Setting

The participants in this study consisted of 348 first-year college students (223 women, 125 men) who attended a large state university in New England. The university is a public institution in a rural area with a total undergraduate enrollment of about 18,000 students. Only first-year students over the age of 18 were eligible to participate. While 438 study participants began the questionnaire, the total number of completed surveys was 348. The ethno-racial composition of the sample was as follows: 61% were Caucasian, 1% were American Indian/Alaskan Native, 10% were Asian, 5% were Black/African American, 8% were Hispanic/Latino, 3% were Multi-race, and 8% reported "Unknown." This distribution mirrors the demographic characteristics of the university.

Procedure

Distribution arrangements were made with First Year Programming (the program title has been changed for anonymity's sake) at this state university in order to facilitate this online survey. First Year Programming at this state university sent an email on the researcher's behalf to the entire first-year student class inviting them to participate in the study with a link to the survey in the body of the email (See Appendix A). Student participants answered the online

survey using a non-specified computer allowing them to fill out the survey from any accessible

computer whether it was in the dorm room, library, etc. The online survey, which used

Qualtrics, took no more than 20 minutes for each participant to complete. Student participants

were offered an incentive of winning a $100 gift card. Informed consent was obtained in the

section of the introductory page of the Qualtrics survey that allowed the participant to check a

box after he/she confirmed that he/she was 18 years of age or over and agreed to the terms of the

informed consent displayed on the survey (See Appendix B).

Measures:

Independent variables:

Risk factors: <u>First-generation</u>, <u>low-income</u>, <u>race</u>, <u>gender</u>, and <u>students from large urban

high schools or small rural communities</u> represent risk-factors that were assessed by standard,

straightforward socio-demographic questions (See Appendix C).   The use of <u>psychiatric

medication</u> was assessed by inquiring, "[a]re you now, or have you recently in the last year taken

psychiatric medication such as Lexapro, Prozac, Paxil, Zoloft, Effexor, Wellbutrin, Lithium,

Depakote, Lamictal, Abilify, Zyprexa, Risperdal, Seroquel, Latuda, Focalin, Ritalin, Concerta,

Adderall, Vyvanse and Strattera, Xanax, Klonopin, Ativan, Valium, Ambien, etc?" (See

Appendix C).   <u>Preoccupied, dismissing, and fearful attachment</u> were assessed utilizing the

Bartholomew and Horowitz (1991) Relationship Questionnaire (RQ), which includes four

statements describing Bartholomew's four attachment styles (secure, preoccupied, dismissing,

and fearful). The dismissing statement reads: "I am comfortable without close emotional

relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to

depend on others or have others depend on me." The preoccupied statement reads: "I want to be

completely emotionally intimate with others, but I often find that others are reluctant to get as

close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them." The fearful statement reads: "I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others." Respondents rate on a 7-point subscale the extent to which he or she identifies with the each of the four attachment styles. The RQ demonstrates good reliability with alpha coefficients ranging from .74 to .95 (Bartholomew & Horowitz, 1991) and good construct validity (Griffin & Bartholomew, 1994).

Protective factors:

Secure attachment was measured by using the Bartholomew and Horowitz (1991) Relationship Questionnaire (RQ), which includes four statements describing Bartholomew's four attachment styles: secure, preoccupied, dismissing, and fearful. The secure statement reads: "It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me."

Healthy separation-individuation was measured using Levine's (1986) Separation Individuation Test of Adolescence (SITA), a 10-item measure of feelings about separation and individuation during adolescence. This is a self-report questionnaire measuring aspects of separation-individuation including separation anxiety and healthy individuation. Levine (1986) developed this tool following Margaret Mahler's theory of separation-individuation during infancy. One limitation of this measurement is that it was created using a Caucasian population. However, it has been later used with diverse samples (Mattanah, Hancock, & Brand, 2004). The questions from the SITA healthy separation subscale include: "I enjoy being by myself and with others approximately the same," "I am friendly with several different types of people," and

"[e]ven when I'm very close to another person, I feel I can be myself." The SITA asks respondents to respond to the questions on a five-point rating scale ranging from one (never true or strongly agree) to five (always true or strongly agree). Levine and Saintonge (1993) report the Cronbach coefficient alpha for reliability for the SITA healthy separation subscale was .64. Levine et al. (1986) indicate support for the theoretical-substantive, internal-structural, and external criterion validity of the SITA (McClanahan & Holmbeck, 1992). Separation-individuation (SITA) had an alpha score of 0.88 in this study.

This study measured resilience with the Smith et al. (2008) Brief Resilience Scale (BRS), a 6-item measure. While the BRS is a self-report measure that involves the participant's perception of their ability to bounce back from stress, there is recent evidence that this measure may be associated with behavioral outcomes related to recovery from stress (Smith et al., 2009; Smith et al., 2010). The BRS includes three positively worded items such as, "I tend to bounce back quickly after hard times" and three negatively worded items such as, "It is hard for me to snap back when something bad happens." The items were scored on a five-point scale from one (strongly disagree) to 5 (strongly agree). Internal consistency was found to be high with Cronbach's alpha ranging from .80–.91(Smith et al., 2008). The Resilience (BRS) measure in this study had an alpha score of 0.86.

This study assessed academic self-efficacy with Chemers et al. (2001) Academic Self efficacy (ASE) 8-item measure. The ASE asks respondents to rate, on a 7-point Likert scale, their degree of agreement with statements reflecting their confidence in their ability to perform well academically. Chemers et al. (2001) indicate that the ASE measure was designed to follow Bandura's (1997) emphasis on a variety of specific skills relating to academic achievement—

scheduling of tasks, note taking, test taking, researching and writing papers—and also included general statements regarding scholarly ability. The coefficient alpha for this scale was .81 (Chemers et al., 2001). Academic self-efficacy (ASE) had an alpha score of 0.89 in this study.

Optimism was measured using the Life Orientation Test- Revised (LOT–R) (Scheier, Carver, & Bridges, 1994), which is a 10-item measure of general expectancies of optimism and pessimism. The scale uses a 5-point disagree–agree scale. Examples of the LOT-R items include: "[i]n uncertain times, I usually expect the best" and "[o]verall, I expect more good things to happen to me than bad." The LOT-R has good internal consistency (Cronbach's alpha runs in the high .70s to low .80s) (Carver, 2014). The Optimism (LOT-R) measure in this study had an alpha score of 0.78.

Extraversion was measured using a subscale of the Big Five Inventory (BFI) (John et al., 1991), a 44-item questionnaire designed to measure the Big Five personality traits: neuroticism, extraversion, openness, agreeableness and conscientiousness. Each of the factors is then further divided into personality facets. This study utilized the extraversion subscale of the BFI to measure extraversion. For pragmatic consideration, extraversion was the only trait chosen to measure in this study in an effort to limit survey length. The extraversion subscale uses a 5-point disagree strongly–agree strongly scale. Examples of the extraversion subscale include, "[i]s talkative" and "[i]s outgoing, sociable." The extraversion subscale also includes items with reversed scoring such as "[i]s reserved" and "[i]s sometimes shy, inhibited." Internal consistencies of the five BFI scales range from .75 to .90, averaging above .80. Test–retest reliabilities have been found to range from .80 to .90 (Patrick, 2011). All of the scales had acceptable levels of reliability as measured by a Cronbach's alpha testing for interscale item agreement. Extraversion (BFI) had an alpha score of 0.85 in this study.

Dependent variable:

A brief 20-item shortened version (Beyers, 2001; Beyers & Goossens, 2002) of the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984) was utilized to assess academic and social adjustment. Beyers (2014) developed a 20- item shortened version of the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984) to assess personal-emotional adjustment and institution attachment. Academic adjustment (10 items) refers to the educational demands of the university experience; social adjustment (10 items) assesses how students deal with interpersonal experiences at the university. Items include statements such as, ''[r]ecently I have had trouble concentrating when I try to study'' (academic adjustment) and ''I am meeting as many people and making as many friends as I would like at university'' (social adjustment). Cronbach's alphas were .87 and .85, respectively.

Beyers (2014) developed shortened scales for personal-emotional adjustment and attachment to university by reviewing original data (N = 1100 students, aged 18-22) with the full scales and selecting items with highest item-total correlations for each scale. Beyers (2014) developed the abbreviated personal-emotional adjustment subscale based on alpha-analysis, leaving out the three items that demonstrated the lowest item-total correlations. Beyers (2014) conducted a factor analysis on the ten items and determined they all loaded on one factor. The Alpha across studies of these ten items was .81-.83 and correlation with original scale with fifteen items was .96. Beyers (2014) developed the abbreviated attachment to university subscale, and, based on alpha-analysis, left out item 36 (lowest item-total correlations). Beyers (2014) conducted principal axis factoring on the remaining 13 items, 1 factor, selection of items with highest factor loadings (=item-total correlations). The Alpha across studies of these 10

items was .80-.85 and correlation with original scale with 15 items was .96. The college

adjustment (SACQ) measure in this study had an alpha score of 0.93.

Control variables:

Socio-demographic variables: Sexual orientation, international student status,

undocumented immigrant status, disability status, parental divorce, distance from home, living

on campus, and contact with mental health services were all control variables that were assessed

by standard, straightforward socio-demographic questions (See Appendix C).   Time away from

home was assessed by asking respondents the yes or no question, "[h]ave you spent more than a

month away from your parents and home (e.g., sleep-away camp, teen summer program, high

school semester abroad, etc.)?" Work was assessed by asking, "[d]uring the time school is in

session, about how many hours a week do you usually spend working on a job for pay?" with

possible responses of "[n]one, I don't have a job, 1-10 hours a week, 11-20 hours a week, 21-30

hours a week, or [m]ore than 30 hours."

Analysis

The descriptive analysis included mean and standard deviation of the risk and protective

factor scales. Regression analysis was utilized to assess the strength of the relationships between

the dependent variable (i.e., first year college adjustment) and independent variables (i.e.,

risk and protective variables) when controlling for other socio-demographic variables by the

STATA statistical program. The three regression models exhibited increasing levels of

complexity. Model 1 contained only risk factors, Model 2 contained risk factors as well as

protective factors, and Model 3 included risk and protective factors plus control variables.

Human subjects

First Year Programming at this state university sent an email inviting students to participate in the study. The email informed participants of the purpose and methods of the research. Informed consent was obtained in the section of the introductory page of the Qualtrics survey. It allowed the participant check a box after he/she confirmed that he/she was 18 years of age or over and agreed to the terms of the informed consent displayed on the survey (See Appendix B). Importantly, Qualtrics is structured in a manner that ensures anonymity and includes password-protected security for survey results. Qualtrics uses Transport Layer Security (TLS) encryption for all transmitted Internet data. Finally, all reporting of findings are in aggregate form only. The University of Pennsylvania IRB approved the study as exempt because the survey was anonymous.

CHAPTER 3

STUDY FINDINGS

Sample Characteristics

Table 1 displays the characteristics of the 348 first-year student sample. Two-thirds of the

study sample was female and the highest proportion of students identified their race as white

(62%). Ninety percent of the study sample identified as heterosexual and the same percentage

reported not having a disability. In terms of household income, 82% came from a household

where the income was above $40,000, and over three quarters of the participants considered

themselves as upper or middle class. A majority of students (>60%) had at least one parent who

had completed bachelor's degree. Over half of the students attended suburban public schools.

Most of the students were not currently taking any psychiatric medication (91%) nor were

receiving mental health treatment (74%). Over 70% of the students had parents who were not

divorced. A majority of students grew up within 100 miles of the university and had not lived

away from home prior to their first year of college.

Table 1: Socio-Demographics

	N	%
Gender		
Female	223	64.1
Male	125	35.9
Race		
Asian	70	20.0
Hispanic	27	7.7
Black	15	4.3
White	219	62.6
Other	19	5.4
Sexual orientation		
Heterosexual	315	90.0
Other	35	10.0
Disability		
Yes	34	9.7

No	316	90.3
Income		
<40k	48	17.5
>40	226	82.5
Class		
Lower or working class	72	20.6
Middle or upper class	278	79.4
Mother's education		
High school or less	69	19.8
Some college	60	17.2
Bachelor	136	39.1
Master or more	83	23.9
Father's education		
High school or less	76	22.1
Some college	52	15.1
Bachelor	105	30.5
Master or more	111	32.3
High school		
Small rural community	47	13.4
Large urban public school	40	11.4
Suburban public school	193	55.1
Other	70	20.0
Ever been Prescribed Psychiatric Medication		
Yes	30	8.6
No	320	91.4
Mental health treatment		
Yes	90	25.7
No	260	74.3
Parents' marital status		
Married	250	71.4
Other	100	28.6
Distance from pre-college housing		
Within 100 miles	251	72.1
More than 100 miles	97	27.9
Away experience		
Yes	97	28.0
No	251	72.1
Employed		
Yes	107	30.8
No	241	69.3

Table 2 displays the means and standard deviations of the various scales employed. The means of the risk and protective factors scales demonstrated scores slightly higher than the middle range. The mean for college adjustment was 6.28, which is toward the high end of the 1-9 scale. Also a little above the middle, Separation-individuation, Resilience, Optimism, and Extraversion all had means around 3 on a scale of 1-5.

Table 2: Mean and Standard Deviation of Risk and Protective Factors Scales

	Mean	SD
SACQ: College adjustment (1-9)	6.28	1.13
RQ: Attachment Scale (1-7)		
Fearful-avoidant attachment	4.11	1.98
Anxious-preoccupied attachment	3.58	1.83
Dismissive-avoidant attachment	4.05	1.87
Secure attachment	4.61	1.77
SITA: Separation-individuation (1-5)	3.89	0.72
BRS: Resilience (1-5)	3.28	0.79
ASE: Academic self-efficacy (1-7)	5.16	1.08
LOT-R: Optimism (1-5)	3.40	0.75
BFI: Extraversion (1-5)	3.12	0.76

Relationship of Risk and Protective Factors Explaining College Adjustment

The study hypothesis was that risk factors (insecure attachment styles, first-generation college student status, low-income status, minority status, female gender, being prescribed psychiatric medication, coming from a large urban high school or small rural community) will negatively impact first year college adjustment and protective factors (secure attachment, healthy separation-individuation, resilience, academic self-efficacy, optimism, and extraversion) will positively impact first year college adjustment.

Table 3 displays the results of three regression models, with varying/progressing levels of complexity. The three regression models build upon one another. Model 1 contains only risk

factors and explains 21% of the variance. The main risk factors significantly contributing to explaining college adjustment include psychiatric medication, fearful-avoidant attachment, and anxious-preoccupied attachment. Specifically, first-year students who reported they were prescribed psychiatric medication within the previous year were significantly associated with decreased college adjustment. For every one-point increase in the fearful-avoidant attachment score, college adjustment decreases by .15 points. Similarly, a one-point increase in anxious-preoccupied attachment score is associated with a .12-point decrease in college adjustment.

Model 2 contains risk factors as well as protective factors and explains 30% of the variance. Once protective factors are included in Model 2, these risk factors maintain their directionality but lose significance. Three of five protective factors— resilience, academic self-efficacy, and optimism—are significantly associated with positive adjustment.

Model 3 includes risk and protective factors as well as control variables and accounts for 54% of the variance. With the addition of control variables in Model 3, a mix of risk and protective factors affect adjustment. Having a fearful-avoidant attachment style loses half of the magnitude of its impact on adjustment, but remains significant at $p < .05$. Academic self-efficacy and optimism retain their significance and the strength of effect, but resilience is no longer significant. Disability was the only control factor that demonstrated a significant impact on college adjustment. Thus, the hypothesis of this study was supported by the data collected.

Table 3: Regression Results for Risk Factors, Protective Factors, and Control Factors

	Model 1 (N=236)	Model 2 (N=224)	Model 3 (N=208)
	β	β	β
Intercept	7.65	2.16	2.51
Risk Factors Income (ref: >$40k) Race (ref.= White)	-0.37	-0.10	-0.24

Asian	-0.35		-0.20		-0.22	
Hispanic	-0.30		-0.20		-0.28	
Black	-0.35		-0.51		-0.56	
Other	-0.34		-0.30		-0.25	
Gender (ref.= female)	-0.14		0.06		-0.01	
High School (ref.= suburban public)						
Small rural community	-0.15		-0.09		-0.17	
Large urban public	0.31		0.11		0.07	
Other type of high school	0.01		0.02		0.02	
Medication	-0.59	*	-0.28		0.03	
Attachment style						
Fearful-avoidant	-0.15	***	-0.07		-0.08	*
Anxious-preoccupied	-0.12	**	-0.03		-0.03	
Dismissive-avoidant	-0.01		-0.01		-0.02	
Protective Factors						
Attachment Style Secure			0.07		0.08	
Separation-individuation			0.14		0.14	
Resilience			0.18	*	0.14	
Academic self-efficacy			0.34	***	0.36	***
Optimism			0.35	***	0.34	**
Extraversion			0.09		0.06	
Control Factors						
Sexual orientation					0.20	
Disability (ref: No)					-0.47	*
Class (ref: middle or upper)					0.10	
Mental health treatment (ref: no)					-0.21	
Parents' marital status (ref: other)					-0.12	
Mother's education					0.02	
Father's education					-0.08	
Away experience (ref: no)					0.21	
Distance (ref: >100miles)					-0.19	
Employed (ref: no)					0.06	
R^2	0.21		0.51		0.54	

* $p < .05$, ** $p < .01$, *** $p<.001$

CHAPTER 4

DISCUSSION AND CONCLUSION

This study examines risk and protective factors that may impact adjustment to college among first-year students, and, in doing so, expands on previous work done in this research domain. It is the first to frame college adjustment as a combination of risk and protective factors. Consequently, it examines a more comprehensive set of potential influencing concepts than previous studies of which we are aware. In addition, the majority of studies examining college adjustment focus on college students of all years and therefore miss the most pronounced period of adaptation. By combining college student participants from all four years in these previous studies, researchers mitigated their ability to explain college adjustment. Those students unsuccessful in adjusting are those who leave college prematurely and do not matriculate to their second year. With a third of students leaving colleges and universities in their first year, there is a need for more focused attention on this at-risk population when problematic adjustment to college is most acute.

Model 3 includes risk factors, protective factors, and control variables and is able to explain more than half of the possible variance. This result suggests that this study comprehensively identified critical factors in college adjustment. Significant risk factors associated with lower levels of first year college adjustment include psychiatric medication, fearful-avoidant attachment, and anxious-preoccupied attachment. Protective factors, including resilience, academic self-efficacy, and optimism were significantly associated with higher levels of first year college adjustment. Disability was the only control factor that demonstrated an impact on college adjustment.

Previous studies merely acknowledged risk factors similar to those in this study to explain college adjustment (Fischer, 2007; Kitzrow, 2003; Terenzini et al., 1996). The present study not only confirms findings suggesting the impact of certain risk factors, but also expands upon prior research by including protective factors in the study. This shift in perspective reveals the significance of protective factors above risk factors in relation to first year college adjustment. The increase in R^2 from .21 in Model 1 to .51 in Model 2 as well as the fact that risk factors that were significant in Model 1 lost significance once protective variables were included suggests that protective factors offer greater impact in aiding adjustment than risk factors. This finding adds new dimension to the topic of first year college adjustment, providing direction in intervention. By fostering individual student strengths, protective factors can compensate for risk factors.

Illuminating the previously overlooked significance of protective factors provides a more nuanced understanding of factors influencing college adjustment. For example, students deemed at-risk of poor adjustment through an assessment evaluating only risk factors would not be identified as at-risk through a model that also evaluates individual-level strengths. In addition, the influence of protective factors is a promising finding because it demonstrates that there is potential for change. Risk factors and control factors are mainly inherent to the individual and frequently cannot be altered. However, we are better able to intervene when it comes to protective factors because they are malleable. Given the implications of this new finding, we are likely in a good position to help first-year students adjust and succeed in college even if they present to campus with certain vulnerabilities. Therefore, we must intervene right at the beginning of college with strengths-based programming in order to have a better chance of reducing the high proportion of students who do not return for sophomore year.

Risk Factor: Psychiatric Medication

A quarter of the study population reported accessing mental health treatment and 8.6% of the study population indicated having been prescribed psychiatric medication within the last year. The negative impact of psychiatric medication on college adjustment found in this study is consistent with the existing literature (Gallagher, 2011; Kessler, Foster, Saunder, and Stang, 1995; Kitzrow, 2003; Sher, Wood, and Gotham; 1996). The present study underscores the prevalence of emotional stress and history of prescribed psychiatric medications among college students. First-year college students report significantly higher levels of emotional stress than previous generations (Klein, 2010). There has been a steady rise in the number of students who are already on psychiatric medication presenting to campus (Gallagher, 2013). With the advent of new psychiatric medications, first-year college students with psychological issues who would otherwise not be able to attend college in the past are now capable of attending. However, many students lack the structure they previously had while living at home. Some college students have magical thinking around no longer needing to take their medication once on campus. As such, the success of these students is dependent on well-designed medication management and appropriate psychological support. This can be a struggle for university counseling centers especially when students who are most at-risk of decompensating are not identified upon entering the university and do not themselves initiate contact with support services.

Risk Factor: Attachment Style

The study revealed that two types of insecure attachment styles—fearful-avoidant attachment and anxious-preoccupied attachment—also negatively affect college adjustment. These findings contribute to a growing body of extant research that examines the effect of attachment styles on a variety of developmental outcomes for young adults. Given the well-

documented evidence of the numerous challenges associated with insecure attachment styles, the present investigation sharpens the focus on college students and demonstrates that decreased college adjustment is associated with fearful-avoidant attachment and anxious-preoccupied attachment. To put this into context, first-year students adjusting to college can be viewed as experiencing a "second strange situation" (Kenny, 1987, 1990; Mattanah, Hancock, & Brand, 2004). In this "second strange situation," first-year students who have strained relationships with their family and insecure attachment styles may lack the secure base from which to successfully separate-individuate and consequently adjust poorly to college.

The fact that these two insecure attachment styles were found to be associated with decreased college adjustment is an important finding as it is consistent with theories of attachment. These theories are premised on the notion that different attachment styles have variant adaptational consequences (Lapsley & Edgerton, 2002). The attachment style risk factors identified in this study are in line with the Lapsley and Edgerton (2002) study that found college adjustment was counterindicated by fearful and preoccupied attachments. First-year students with a fearful-avoidant attachment style are characterized as avoidant of close relationships due to fear of rejection, a sense of personal insecurity, and a distrust of others (Bartholomew & Horowitz, 1991). The research findings linking this style of relating to decreased college adjustment can be explained by the first-year students' fearful-avoidant attachment style inhibiting the ability to engage in and cultivate relationships. Healthy relationship building is a critical task of development related to the crisis of intimacy vs. isolation (Erikson, 1964) and crucial to social adjustment in college. A core aspect of first year college adjustment involves navigating the new social environment and developing social connections in the form of platonic and romantic relationships.

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First-year students with an anxious-preoccupied attachment style demonstrate an additional dysfunctional manner of relating. Anxious-preoccupied attachment style is characterized by an over involvement in close relationships, a dependence on other people's acceptance for a sense of personal well-being, a tendency to idealize other people, and incoherent and exaggerated emotionality in discussing relationships (Bartholomew & Horowitz, 1991). The study findings that associate this style of relating to decreased college adjustment can be understood from the perspective that first-year students with an anxious-preoccupied attachment style may rely too heavily on their relationships with others and are therefore unable to negotiate healthy relationships with their peers.

Protective Factors: Resilience, Academic Self-Efficacy and Optimism

As the first to highlight both protective factors and risk factors in college adjustment, this study suggests that students' risk factors lose their potency when adjusting for protective factors and thus emphasizes the importance of assessing and enhancing strengths. This study identifies three protective factors—resilience, academic self-efficacy, and optimism—associated with increased college adjustment among first-year students. These findings are consistent with the Chemers et al. (2001) study that provides compelling support for the role of self-efficacy and optimism in first-year college students' success and adjustment. It did not, contrary to previous studies, find any relationship between college adjustment and separation-individuation (Blustein, Walbridge, Friedlander, & Palladino, 1991; Lapsley, & Edgerton, 2002; Mattanah, Hancock, & Brand, 2004; Rice et al., 1995). In identifying these protective factors, we begin to have a foundation for clinical implications. While risk factors and control factors are mostly intrinsic to the individual and difficult to change, we may be able to intervene by enhancing protective

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factors. Protective factors are the more malleable components of development in the face of adversity (Bynner, 2001).

Clinical Implications

This study extends the growing literature on adaptation in early adulthood by attesting to the unique significance of protective factors for successful college adjustment. As noted earlier, these risk factors, which include psychiatric medication, fearful-avoidant attachment, and anxious-preoccupied attachment, seem to lose potency when we include protective factors in context. This suggests that college mental health professionals, in addition to clinically assessing for evidence of risk, need to probe for evidence of protective factors—that is, for the degree of resilience, academic self-efficacy, and optimism. Workshops and freshman seminars that improve protective factors associated with college adjustment can be developed. A curriculum can be designed to help first-year students cultivate skills related to both academic achievement and personal development by enhancing academic self-efficacy, optimism, and resilience. This focus on student strengths is consistent with the emerging emphasis on resiliency currently permeating psychology.

Clearly, preventative interventions also necessitate enhanced consideration. Colleges are recognizing the increasing need for student mental health on campus and attempting to allocate resources. This study provides additional support for programming aimed at addressing these mental health needs. The entire first-year student body could benefit from improved orientation seminars geared at highlighting potential obstacles students may encounter in college and informing them of the mental health resources available to them on campus. Wellness advisors may be an important addition to the increasing trend of wellness centers on college campuses that aim to reduce mind/body stress through stress reduction activities such as mindfulness

meditation. In addition to their academic advisors, first-year students may be assigned to these wellness advisors who can assist in connecting students to mental health services. Wellness support aimed at assisting students in their social and psychological adjustment to the first-year of college may improve student wellbeing and hence academic performance.

Given the strong relationship between psychiatric medication use and adjustment to college, at-risk students may need to be identified upon entering the university. The success of these students is dependent on successfully managing their psychiatric medication and offering psychological support. Increased efforts to accommodate these students at the start of their first year may decrease the risk of decompensating and, consequently, the risk of prematurely leaving school. The study controlled for students with disabilities and found that disability was associated with decreased college adjustment. Around 10% of the study population identified as having a disability; these students represent another segment of the first-year student population that requires particular attention with regard to accommodations and resources at the university. The university office of disabilities may strengthen programming assisting first-year students in their adjustment to college.

Finally, college mental health professionals can utilize an adult attachment style screening measure during intake to assist in the evaluation and conceptualization of presenting concerns. College mental health professionals could easily utilize the Bartholomew and Horowitz (1991) Relationship Questionnaire (RQ). This measure includes four statements describing Bartholomew's four attachment styles: secure, preoccupied, dismissing, and fearful (1991). This brief screening may assist in flagging students who may be more vulnerable to adaptational challenges. In particular, first-year students who present with fearful-avoidant or anxious-preoccupied attachment styles demonstrate dysfunctional relational patterns that are

likely associated with increased risk of difficult adjustment to college. Given that time in therapy is a potential pathway in moving from insecure attachment toward earned-secure attachment (Saunders et al., 2011), college mental health professionals would be able to assist students in this process. Early intervention during the first year may be able to prevent college students from dropping out prematurely and to help them graduate.

Study Limitations

Although this study sample is closely in line with the overall student makeup at the particular state university where the study was conducted and similar to other large state universities, it may not be as generalizable to small liberal arts colleges, Ivy League universities, etc. Participation in this study was voluntary and based on self-motivation to complete the questionnaire. Almost 100 students began the survey without completing it. A caveat in the study design pertains to the nature of correlational analysis, which cannot determine causal relationships between variables. Furthermore, data for this study was based exclusively on self-report measures. The validity of a survey questionnaire is dependent on the participants' willingness to answer truthfully and accurately interpreting questions poised. If some of the questions seemed ambiguous to respondents, they may have misinterpreted the questions and responded accordingly. Redesigning this survey study so that it can be supplemented with other (perhaps more stable and diverse) sources of information may enhance the findings.

Future Directions

Future research may explore differences in college adjustment during the fall and spring semesters of the first year to gain a more nuanced understanding of adaptation patterns, which can aid in pinpointing when intervention is best suited. Efforts in the form of longitudinal studies of student adaptation and counseling interventions could directly evaluate and address

college adjustment prior to, during, and after interventions (e.g., freshman seminars bolstering protective factors, attachment-oriented therapeutic approaches, or preventive interventions addressing students on psychiatric medication or having disabilities). In fact, this study could be extended to track matriculation to sophomore year and further assess graduation status.

Conclusion

Increased research and interventions aimed at first-year students are necessary to address the unfortunate fact that one in three first-year college students do not return for their sophomore year. This college adjustment study demonstrates the importance of focusing on the protective factors of first-year college students, an emphasis consistent with social work philosophy, which values an individual's strengths. Previous approaches that misplace their main emphasis by focusing on risk factors are missing the bigger picture when it comes to college adjustment. Even though first-year students present to campus with risk factors, their strengths compensate for these vulnerabilities. In fact, risk factors lose their potency when adjusting for protective factors. A major clinical implication from these findings is that college mental health professionals must assess for protective factors and enhance these strengths in the effort to improve first year college adjustment. This strategy will likely positively impact graduate rates.

College student enrollment is currently at a record high. These qualified first-year students are reporting with increased confidence that they will successfully graduate. However, in an alarming new phenomenon, a third of first-year students will leave school prematurely. We are seeing unprecedentedly high levels of U.S. college and university student enrollment, yet fewer students are actually graduating. Programming targeting upperclassmen will fail to capture the third of students who do not matriculate after their initial year and thus strategies must target college students early in their college careers. The chance to bolster the strengths of

first-year students who have the potential to overcome risks and challenges and continue to sophomore year will be lost if we do not hit the ground running with strengths-based programming during the first year of college.

APPENDIX A

RECRUITMENT EMAIL

Email subject: First-Year Study – Win $100 Amazon Gift Card

Dear First-Year Student,

I am inviting you participate in a research project studying first-year college students. Please click on the link (http://www.qualtrics.com) to access a short questionnaire that asks a variety of questions regarding your background. I am asking you to look over the questionnaire and, if you choose to do so, complete it by clicking on this link: http://www.qualtrics.com.

It should take you about 20 minutes to complete. By completing the survey, you have the chance to **win a $100 Amazon gift card.** You must be a first-year student who is 18 years of age or over to participate in this survey.

The results of this project will be used for my dissertation at University of Pennsylvania School of Social Policy & Practice. Through your participation I hope to understand and improve resources and supports for first-year college students. I expect to use the data for my dissertation, which will be available to you upon completion.

The survey (http://www.qualtrics.com) should take you less than 20 minutes to complete and I guarantee that your responses will remain anonymous. I hope you will take the time to complete this questionnaire.

If you have any questions or concerns about completing the questionnaire (http://www.qualtrics.com) or about being in this study, you may contact me at kahnmar@sp2.upenn.edu

This project has been approved by the University of Pennsylvania Institutional Review Board.

Sincerely,
Marissa Kahn

Sent on behalf of Marissa Kahn by the Assistant Director of First Year Programming with the approval of IRB and OIRE.

YOU MUST BE 18 YEARS OF AGE OR OVER TO PARTICIPATE IN THIS SURVEY.

By checking this box, I am agreeing that I am over 18 years of age.

❑   I am over 18 years of age.

[PAGE BREAK]

Thank you for taking the time to fill out this survey. It should take no more than 20 minutes to complete. Your participation in this survey is entirely voluntary. You may choose not to participate or exit the survey at any time. All responses will remain anonymous.

This survey is being utilized to help better understand first-year college students. This survey is being conducted by Marissa Kahn for her dissertation.

If you still have questions or concern about your rights as a participant in this survey, you may contact the Office of Regulatory Affairs at the University of Pennsylvania by calling (215) 898-2614.

Thank you for taking the time to complete this survey. We greatly appreciate your participation!

[PAGE BREAK]

Terms of Informed Consent and Study Requirements:

Purpose/Procedure: You are being asked voluntarily to participate in this study because you are a first-year student in college and this study is interested in first-year student adjustment to college. The purpose of the study is to learn more about the extent to which certain factors explain first year college adjustment. This study is being conducted for a dissertation in social work. Participation in this study involves completion of a short one-time online survey, which will last approximately 20 minutes. This study is being conducted through the University of Pennsylvania. However, the survey is online and can be accessed on any computer.

Risks: There are no known risks involved. However, should you find the questions upsetting for any reason, you may discontinue the survey at any time.

Benefits: There is no benefit to you. However, your participation could help us understand first year college adjustment, which may benefit you indirectly. In the future, this may help other people to better assist first-year students to adjust to college.

Confidentiality: Every effort will be made to keep information obtained during this study confidential. We will keep any records that we produce private to the extent we are required to do so by law. Qualtrics secures all responses provided. However, we cannot guarantee total privacy. Records can be opened by court order or produced in response to a subpoena or a request for production of documents. If information from this study is published or presented at scientific meetings, your name and other personal information will not be used.

Voluntary Participation and Withdrawal: You must be 18 years of age or over to participate in this study. Participation in this study is voluntary; refusal to participate will involve no penalty. Each participant is free to withdraw consent and discontinue participation in the survey at any time. Participation or non-participation in this survey will in no way affect your class grades, course status, or graduation status.

Reward: There is no monetary compensation for this study; however, an incentive will be offered to those students who participate in this study. Once you complete this survey, you will be assigned a unique ID, which will be entered to win a $100 Amazon gift card. You will check a Facebook Page two weeks following the study to see if your unique ID was randomly chosen. If you are chosen to win the gift card will, you contact the investigator to obtain the incentive.

Contact Persons: If you have questions, concerns or complaints regarding your participation in this research study or if you have any questions about your rights as a research subject, you should speak with the Student Investigator, Marissa Kahn at kahnmar@sp2.upenn.edu. If a member of the research team cannot be reached or you want to talk to someone other than those working on the study, you may contact the Office of Regulatory Affairs with any question, concerns or complaints at the University of Pennsylvania by calling (215) 898-2614.

By checking this box, I am agreeing that I am 18 years of age or over and am agreeing to the terms of the informed consent and study requirements.

❑ I agree that I am 18 years of age or over and am agreeing to the terms of the informed consent and study requirements.

APPENDIX C

SURVEY

Q1 How do you describe your racial or ethnic background?

- ○ Asian/ Asian American/ Pacific Islander
- ○ Hispanic/ Latino/ Chicano
- ○ African American/ Black
- ○ Caucasian/ White
- ○ Native American/ American Indian/ Alaskan Native
- ○ Multiracial/ multicultural

Q2 How do you describe your gender?

- ○ Male
- ○ Female
- ○ Transgender
- ○ Other

Q3 How do you identify your sexual orientation?

- ○ Heterosexual
- ○ Gay
- ○ Lesbian
- ○ Bisexual
- ○ Questioning
- ○ Other

Q4 Which, if any, of the following disabilities relate to you? Choose all that apply.

- ❑ Physical Disability
- ❑ Learning Disability
- ❑ Neurological Disability
- ❑ Chronic Illness
- ❑ Never been diagnosed with a disability and do not consider myself to have one

Q5 Which best applies to your legal status in the U.S.?

○ I am a U.S. citizen or permanent resident
○ I'm an international student with a student visa granting me permission to study in the U.S.
○ I am an undocumented immigrant
○ Other/ prefer not to disclose

Q6What is your parents' annual household income?

○ Less than $20,000
○ $20,001-$40,000
○ $40,001-$60,000
○ $60,001-$80,000
○ $80,001-$100,000
○ More than $100,000
○ Not sure/ prefer not to disclose

Q7 If you were asked to use one of the four categories to describe your social class, to which would you say you belong?

○ Lower class
○ Working class
○ Middle class
○ Upper class

Q8a What is the highest level of education your mother (or legal guardian) has attained?

○ K-8 grade
○ High school graduate/GED
○ Technical/Vocational/Associates degree/some college
○ Bachelor's degree
○ Master's degree
○ Doctorate
○ Not applicable

Q8b What is the highest level of education your father (or legal guardian) has attained?

○ K-8 grade
○ High school graduate/GED
○ Technical/Vocational/Associates degree/some college
○ Bachelor's degree
○ Master's degree
○ Doctorate
○ Not applicable

Q9 What type of high school did you attend? If you attended more than one school, consider the one where you spent the most time.

❑ Small rural community high school
❑ Large urban public high school
❑ Suburban public high school
❑ Magnet high school
❑ Charter high school
❑ Private religious high school
❑ Private nonreligious high school
❑ Boarding school where you lived away from home
❑ Homeschooled

Q10 Are you currently being prescribed, or have you been prescribed within the past year, psychiatric medication such as Lexapro, Prozac, Zoloft, Wellbutrin, Lithium, Depakote, Lamictal, Abilify, Zyprexa, Risperdal, Seroquel, Ritalin, Concerta, Adderall, Vyvanse, Xanax, Klonopin, Ativan, Valium, Ambien, etc.?

○ Yes
○ No

Q11 Which best describes your access to mental health services?

○ Never accessed mental health services
○ Accessed mental health services prior to college, but not currently
○ Access mental health services at the university counseling center
○ Access mental health services off campus

Q12a What is the marital status of your parents?

○ Married
○ Divorced
○ Separated
○ Single
○ Widowed

When did this divorce occur?

○ Within the last year
○ Within the last 5 years
○ Within the last 10 years
○ More than 10 years ago

When did this separation occur?

○ Within the last year
○ Within the last 5 years
○ Within the last 10 years
○ More than 10 years ago

Q13 How many miles is the university from the home where you were living before attending college?

○ Less than 10 miles
○ Within 100 miles
○ 101-500 miles
○ More than 500 miles

Q14 Where are you living?

○ University housing
○ Off-campus housing
○ Family home

Q15 Prior to college, have you spent more than a month away from your parents and home (e.g., sleepaway camp, teen summer program, high school semester abroad, etc.)?

❍ Yes
❍ No

Q16 During the time school is in session, about how many hours a week do you usually spend working on a job for pay?

❍ None, I don't have a job
❍ 1-10 hours a week
❍ 11-20 hours a week
❍ 21-30 hours a week
❍ More than 30 hours

Q17 The 39-items on this survey are statements that describe college experiences. Read each one and decide how well it applies to you at the present time (within the last few days). For each item, check the number that best represents how closely the statement applies to
you.

	Applies very closely to me								Doesn't apply to me at all
I feel that I fit in well as part of the college environment (1)	○	○	○	○	○	○	○	○	○
I have been feeling tense or nervous lately (2)	○	○	○	○	○	○	○	○	○
I have been keeping up to date on my academic work (3)	○	○	○	○	○	○	○	○	○
I am meeting as many people and making as many friends as I would like at college (4)	○	○	○	○	○	○	○	○	○
I know why I'm in college and what I want out of it (5)	○	○	○	○	○	○	○	○	○
Lately I have been feeling blue and moody a lot (6)	○	○	○	○	○	○	○	○	○
I am adjusting well to college (7)	○	○	○	○	○	○	○	○	○
I have felt tired much of the time lately (8)	○	○	○	○	○	○	○	○	○

I am pleased now about my decision to go to college (9)	○	○	○	○	○	○	○	○	○
I am pleased now about my decision to attend this college in particular (10)	○	○	○	○	○	○	○	○	○
I'm not working as hard as I should at my course work (11)	○	○	○	○	○	○	○	○	○
I have several close social ties at college (12)	○	○	○	○	○	○	○	○	○
My academic goals and purposes are well defined (13)	○	○	○	○	○	○	○	○	○
I haven't been able to control my emotions very well lately (14)	○	○	○	○	○	○	○	○	○
I haven't been very efficient in the use of study time lately (15)	○	○	○	○	○	○	○	○	○
I enjoy living in a college dormitory (please omit if	○	○	○	○	○	○	○	○	○

you do not live in a dormitory; any university housing should be regarded as a dormitory) (16)								
I have been having a lot of headaches lately (17)	○	○	○	○	○	○	○	○	○
I really haven't had much motivation for studying lately (18)	○	○	○	○	○	○	○	○	○
I am getting along very well with my roommate(s) at college (please omit if you do not have a roommate) (19)	○	○	○	○	○	○	○	○	○
I wish I were at another college or university (20)	○	○	○	○	○	○	○	○	○
I feel that I have enough social skills to get along well in the college setting (21)	○	○	○	○	○	○	○	○	○
I have been getting angry to easily lately (22)	○	○	○	○	○	○	○	○	○

Recently I have had trouble concentrating when I try to study (23)	○	○	○	○	○	○	○	○	○
I haven't been sleeping very well (24)	○	○	○	○	○	○	○	○	○
Sometimes my thinking gets muddled up too easily (25)	○	○	○	○	○	○	○	○	○
I am satisfied with the extent to which I am participating in social activities at college (26)	○	○	○	○	○	○	○	○	○
I expect to stay at college for a bachelor's degree (27)	○	○	○	○	○	○	○	○	○
I am enjoying my academic work at college (28)	○	○	○	○	○	○	○	○	○
I have been feeling lonely a lot at college lately (29)	○	○	○	○	○	○	○	○	○
I am having a lot of trouble getting started on homework assignments (30)	○	○	○	○	○	○	○	○	○

I have been feeling in good health lately (31)	○	○	○	○	○	○	○	○	○
I feel I am very different from the other students at college in ways that I don't like (32)	○	○	○	○	○	○	○	○	○
Lately I have been giving a lot of thought to transferring to another college (33)	○	○	○	○	○	○	○	○	○
Lately I have been giving a lot of thought to dropping out of college altogether and for good (34)	○	○	○	○	○	○	○	○	○
I find myself giving considerable thought to taking time off from college and finishing later (35)	○	○	○	○	○	○	○	○	○
I have some good friends or acquaintances at college with whom I can talk about any problems	○	○	○	○	○	○	○	○	○

I may have (36)									
I am experiencing a lot of difficulty coping with the stresses imposed upon me in college (37)	❍	❍	❍	❍	❍	❍	❍	❍	❍
I am quite satisfied with my social life at college (38)	❍	❍	❍	❍	❍	❍	❍	❍	❍
I'm quite satisfied with my academic situation at college (39)	❍	❍	❍	❍	❍	❍	❍	❍	❍

Q18a Following are four general relationship styles that people often report. Place a checkmark next to the letter corresponding to the style that best describes you or is closest to the way you are.

❍ Style A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

❍ Style B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

❍ Style C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

❍ Style D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Q18b Now please rate each of the relationship styles above to indicate how well or poorly each description corresponds to your general relationship style.

	Disagree Strongly			Neutral/ Mixed			Agree Strongly
Style A	○	○	○	○	○	○	○
Style B	○	○	○	○	○	○	○
Style C	○	○	○	○	○	○	○
Style D	○	○	○	○	○	○	○

Q19 How well does each of the following statements describe you? Listed below are statements that describe various feelings, attitudes, and behaviors that people have. Rate how well each statement describes you using the 5-point scale below. Simply put the appropriate number on the line next to each statement.

Strongly Agree	Generally Agree	Slightly Agree	Generally Disagree	Strongly Disagree
Always True	Usually True	Sometimes True	Hardly Ever True	Never True
1	2	3	4	5

I enjoy being by myself and with others approximately the same.

I am friendly with several different types of people.

Even when I'm very close to another person, I feel I can be myself.

My friends and I have some common interests and some differences.

Although my best friend does things I do not like, I still care about him/her a great deal.

I am comfortable with some degree of conflict in my close relationships.

Although I'm like my close friends in some ways, we're also different from each other in other ways.

While I like to get along well with my friends, if I disagree with something they're doing, I usually feel free to say so.

When I'm with a group of friends, I sometimes act like the leader and at other times more like a follower.

When I am truly friendly with someone, it's usually the case that they know both my good parts and my bad parts.

I feel that the degree to which I satisfy the needs of my friends and they satisfy my needs is approximately equal.

Q20 Please respond to each item by marking one box per row.

	Strongly Disagree 1	Disagree 2	Neutral 3	Agree4	Strongly Agree 5
I tend to bounce back quickly after hard times (1)	○	○	○	○	○
I have a hard time making it through stressful events (2)	○	○	○	○	○
It does not take me long to recover from a stressful event (3)	○	○	○	○	○
It is hard for me to snap back when something bad happens (4)	○	○	○	○	○
I usually come through difficult times with little trouble (5)	○	○	○	○	○
I tend to take a long time to get over set-backs in my life (6)	○	○	○	○	○

Q21 For each item, check the number that best represents how true the statement is to you.

	Very Untrue 1	2	3	4	5	6	Very True 7
I know how to schedule my time to accomplish my tasks. (1)	❍	❍	❍	❍	❍	❍	❍
I know how to take notes. (2)	❍	❍	❍	❍	❍	❍	❍
I know how to study to perform well on tests. (3)	❍	❍	❍	❍	❍	❍	❍
I am good at research and writing papers. (4)	❍	❍	❍	❍	❍	❍	❍
I am a very good student. (5)	❍	❍	❍	❍	❍	❍	❍
I usually do very well in school and at academic tasks. (6)	❍	❍	❍	❍	❍	❍	❍
I find my university academic work interesting and absorbing. (7)	❍	❍	❍	❍	❍	❍	❍
I am very capable of succeeding	❍	❍	❍	❍	❍	❍	❍

at the university. (8)							

Q22 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.

	I agree a lot A	I agree a little B	I neither agree nor disagree C	I disagree a little D	I disagree a lot E
In uncertain times, I usually expect the best. (1)	❍	❍	❍	❍	❍
It's easy for me to relax. (2)	❍	❍	❍	❍	❍
If something can go wrong for me, it will. (3)	❍	❍	❍	❍	❍
I'm always optimistic about my future. (4)	❍	❍	❍	❍	❍
I enjoy my friends a lot. (5)	❍	❍	❍	❍	❍
It's important for me to keep busy. (6)	❍	❍	❍	❍	❍
I hardly ever expect things to go my way. (7)	❍	❍	❍	❍	❍
I don't get upset too easily. (8)	❍	❍	❍	❍	❍
I rarely count on good things happening to me. (9)	❍	❍	❍	❍	❍
Overall, I expect more good things to happen to me than bad. (10)	❍	❍	❍	❍	❍

Q23 The following statements concern your perception about yourself in a variety of situations. Your task is to indicate the strength of your agreement with each statement, utilizing a scale in which 1 denotes strong disagreement, 5 denotes strong agreement, and 2, 3, and 4 represent intermediate judgments. In the boxes after each statement, click a number from 1 to 5 from the following scale: Strongly disagree Disagree Neither disagree nor agree Agree Strongly agree   There are no "right" or "wrong" answers, so select the number that most closely reflects you on each statement. Take your time and consider each statement carefully.

I see myself as someone who...

	Strongly Disagree 1	Disagree 2	Neither disagree nor agree 3	Agree 4	Strongly Agree 5
...Is talkative (1)	○	○	○	○	○
...Is reserved (2)	○	○	○	○	○
...Is full of energy (3)	○	○	○	○	○
...Generates a lot of enthusiasm (4)	○	○	○	○	○
...Tends to be quiet (5)	○	○	○	○	○
...Has an assertive personality (6)	○	○	○	○	○
...Is sometimes shy, inhibited (7)	○	○	○	○	○
...Is outgoing, sociable (8)	○	○	○	○	○

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This is your unique ID, which will be entered to win a $100 Amazon gift card:

XXX123

Please make note of your unique ID for future reference by saving a screen shot or taking a photo of your ID with your phone.

This is the link to the Facebook Page where you will check on 12/19/14 to see if your ID was randomly chosen to win the $100 Amazon gift card:

Facebook link

Please make note of this Facebook Page for future reference.

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Thank you for your participation.

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