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Adult Attachment, Emotional Intelligence, and Resilience as Correlates of Social Engagement, Academic Engagement, and Confidence of Persistence in College Students

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I am submitting herewith a thesis written by Yacob Tewolde Tekie entitled "Adult Attachment, Emotional Intelligence, and Resilience as Correlates of Social Engagement, Academic Engagement, and Confidence of Persistence in College Students." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Brent S. Mallinckrodt, Major Professor

We have read this thesis and recommend its acceptance:

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(Original signatures are on file with official student records.)

**Adult Attachment, Emotional Intelligence, and Resilience as Correlates of Social
Engagement, Academic Engagement, and Confidence of Persistence in College
Students**

A Thesis Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Yacob Tewolde Tekie

December 2014

Dedication

To my lovely wife, Miriam and my loving parents Tewelde and Ugbamariam

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Abstract

The current study investigated freshmen university students ($N = 210$) to examine the role of attachment style (anxiety, avoidance), emotional intelligence (repair, attention, clarity) and resilience in predicting student adaptation to college (academic, social, personal and academic engagement). Four multiple regression analyses were conducted for each subscale of adaptation to college. The results indicated that; a) emotional intelligence (attention, clarity) and resilience significantly predicted student academic adjustment; b) emotional intelligence (repair) predicted student social adjustment; c) emotional intelligence (clarity), resilience, and adult attachment (anxiety) significantly predicted student personal adjustment; and d) emotional intelligence (repair, clarity) and resilience, significantly predicted student academic engagement. Additionally, multivariate analysis of variance (MANOVA) was run to examine sex and ethnic/racial differences in the ten variables. Results indicated significant differences between men and women with regard to academic adjustment and emotion attention. However, MANOVA suggested no significant difference between students of color (all non-white students as a single group) and White students. Implications for research and practice are discussed.

Keywords: adult attachment, emotional intelligence, resilience, social engagement, academic engagement, personal engagement, persistence in college

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Chapter 1

Introduction

Introduction

Today's higher education institutions are simultaneously facing accountability standards, increased diversity in student populations, and decreased funding (Adelman, 1998). It is not only that institutions face problems of competing for the best students, but they must also retain and graduate these students. A national survey of over 2 million students who began college in 2007 reported that six years later, of those who had been enrolled full time, only 43% completed their degree at the starting institution, 13% graduated from a different institution, 15% were still trying to finish, and 29% had dropped out (National Student Clearinghouse Research Center, cited in Chronicle of Higher Education, Dec. 20, 2013). Thus, because the six-year graduation rate is only 56% for full-time students, and only 21% for students enrolled part-time, universities must assess every factor that ensures academic success. The six year graduation rate at the institution which will host this research project has increased from 59.8% (2008) to 66.1% (2012). Despite this increase, the administration at this study site is seeking ways to improve retention further.

One measure of a University's success is the student retention rate, especially freshman to sophomore (US News & World Report, 2011). In fact, research suggests that the first year of college is the most critical in terms of attrition rates. Data reported by the American College Testing Program (2013) indicated 27.8% of full-time college freshmen entering a four-year public institution in the fall of 2012 did not return to that

institution for their sophomore year. For example, at the study institution, in the freshman class of 2006, 16% did not come back for their second year. In other words, of all students who drop out, approximately half do so before starting their sophomore year (UTK online Fact Book, Office of Institutional Research and Assessment [<https://oira.utk.edu/factbook/archive>]).

Many students struggle in transitioning from high school to university, a time that becomes very stressful for many individuals (Perry, Hladkyj, Pekrun, & Pelletier, 2001; Pratt et al., 2000). The transition to college is associated with a culmination of varied and sometimes conflicting emotions. It is a time of excitement and opportunity, and also a time of adjustment and uncertainty. Many students will be living away from their family and social support for the first time. Although the anticipated sense of freedom is appealing, the reality of being accountable soon sets in. Managing finances, keeping up with academic demands, making new friends, and even the basics of learning to do one's own laundry are among the numerous aspects of adjusting to college. Even the most academically prepared and socially mature individuals can experience difficulty at some point in making this transition (Tinto, 1993).

Student retention experts believe that academic and non-academic factors significantly influence retention and academic success of students (Williams, 2004). The basic assumption is that human beings operate based on the existence of two independent but interconnected minds: "rational, which operates according to logical reference, is conscious, deliberative, and relatively emotion-free; and experiential mind, which learns directly from experience, is preconscious, operates automatically, and is intimately

associated with emotions” (Epstein, 1998, p. 9). Student development experts suggest that difficulties in integrating the cognitive and affective domains result in students who are poorly prepared for society (Vela, 2003).

Tinto’s Model of Engagement

Many studies of college student retention have been based on the theoretical model of persistence developed by Tinto (1975). Persistence occurs when a student successfully integrates both academically and socially into the institution (Tinto, 2012). For the purpose of this study, retention and persistence will be operationalized and differentiated as follows. “Retention is the perspective of the institution, and is defined as the rate at which an institution retains and graduates students who first enter the institution as freshmen at a given point in time . . . By contrast persistence refers to the perspective of the student, which is the rate at which students who begin higher education at a given point in time continue in higher education and eventually complete their degree, regardless of where they do so” (Tinto, 2012, p.127). Successful (culturally and socially) integration of students into college may be influenced by students’ characteristics (e.g. family backgrounds, pre-college characteristics, goals, interaction with peers and faculty, and out of classroom factors) as well as the institution’s expectations (Rendon, Jalomo, & Nora, 2004). These qualities that students bring when entering college directly influence their decision to leave, as well as their initial commitment to their college (Tinto, 1975; Yorke, & Longden, 2004). Tinto’s model of engagement identifies potential factors that influence retention at: (a) the individual level, such as academic performance, attitudes, satisfaction, course load, credits earned, and

academic self-discipline; (b) institutional level, such as academic engagement, research activities, university size, opportunity to join clubs; and (c) the social/external level, including social, family, faculty, and staff support; cultural environment, sense of belonging and sense of importance (Jensen, 2011). Thus, successful retention of students is the responsibility of both the institution and the student.

Researchers have looked for ways to predict which students will successfully make the adjustment to college. Previous studies mainly focused on the role of past academic performance to predict students' successful adjustment to the demands of higher education. For example, almost 50 years ago high school grade-point average (GPA) was identified as the single best predictor of college retention (Irvine, 1966). However, with the development of preadmission tests such as ACT and SAT, over the last few decades, these standardized tests, in addition to GPA, were expected to improve the predictions for success in college.

Although academic performance is an important element in overall college success, involuntarily leaving college due to poor academic performance accounts for less than 25% of total college student attrition (Tinto, 1993). Given these outcomes, researchers began exploring other avenues to increase the understanding of college student attrition and successful adjustment to college. Bean and Eaton (2000) proposed a psychological model for understanding college student retention, theorizing that psychological processes take place as the student interacts with the college environment. They proposed that students enter college with a broad range of personal qualities and attributes including past behavior, skills and abilities, coping strategies, and personality

traits. For students who effectively transition to college, the outcome of these psychological processes is reduced anxiety, positive self-efficacy, increased confidence, internal locus of control, and *engagement* with the academic environment (social integration) (Bean & Eaton, 2000). The end result is positive academic and social adjustment to college. Models such as this promote research on adjustment to college to look far beyond purely academic factors.

Secure Attachment

The theory of attachment, which was developed by John Bowlby (1969) and later was expanded by Mary Ainsworth (1973) is defined as an emotional and physical bond to another person that is enduring across time and space, such as when a child bonds emotionally with his or her primary care taker (Bowlby, 1969). Bowlby's theory has three key elements. First, he suggested that when children are raised with confidence that their primary caregiver will be available to them, the children would be less likely to experience fear than those who are raised without such conviction. Second, he believed that the confidence developed in childhood and adolescence tends to remain relatively unchanged throughout the person's adult life. Finally, these expectations are directly tied to actual experience, which means children develop expectations that their caregivers will be responsive to their needs because, in their experience, their caregivers have been responsive in the past.

Thus, adult attachment is guided by the same motivational system that gives rise to the close emotional bond between children and their parents, which is responsible for the emotional bond that develops between adults in an emotionally intimate relationship.

Whether an adult is secure or insecure in his/her close relationships is heavily influenced by his or her experiences with his or her primary caregivers (Fraley, 2010). For example, as mentioned in the above paragraph, a secured child tends to believe that others will be there for him or her because previous experiences have led him or her to this conclusion. Once children have developed such expectations, they will tend to seek out relationships that are consistent with those previous experiences and perceive others in a way that is colored by those beliefs (Bowlby, 1969; Fraley, 2010).

A very limited number of studies have examined the influence of attachment on adjustment to college. One such study explored the relationship of attachment style, problem coping style, and perceived level of distress in undergraduate students (Lopez, Mauricio, Gormley, Simko, & Berger, 2001). The findings suggest insecurely attached students were more likely to experience higher levels of distress as a result of using maladaptive problem coping styles. Another study examined the relationship between early adult attachment styles and social adjustment such as mental health and self-perception in the context of a close relationship (Kanemasa & Daibo, 2003). The results showed that insecure attachment was negatively related to social adjustment. Similarly, another study found that stress was negatively associated with GPA, especially for female participants, and attachment moderated the effect of stress on GPA (Petroff, 2009). A similar study on multiethnic first year students examined a relationship between family attachment and psychological wellbeing (Maureen & Vivian, 1996). The results indicated a negative relationship between secure attachment (to mothers) and psychological distress at the time of college entry.

Emotional Intelligence

Researchers have examined whether Emotional Intelligence (EI) could be a predictor of college adjustment, academic success, and turnover intentions. EI is the capacity of some individuals to carry out sophisticated information processing about emotions and emotion-relevant stimuli and use this information as a guide to thinking and behavior (Mayer, Salovey, & Caruso, 2008). For the purpose of this study, I chose to adopt a definition of EI as “the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth” (Mayer & Salovey, 1997, p. 5). In addition, this study will focus specifically on: (a) attention to one’s own feelings, (b) clarity of feelings, and (c) mood repair.

Research has suggested a positive relationship between EI and academic achievement (Colston, 2008; Evenson, 2007; Vela, 2003; Walker, 2007). A study conducted on first year college students assessed the role of EI on academic achievement and the results showed a significant relationship between EI and academic achievement when controlling for gender and ethnicity (Vela, 2003). Similarly, another study found that EI and gender were good predictors of academic achievement in university students; furthermore EI was found to be a better predictor than gender of the variance (Fayombo, 2012). In a similar study examining EI and academic achievement in undergraduate students, the results indicated a positive correlation between EI (as measured by Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)) and GPA (Holt, 2007). Another study assessed the relationship between EI and academic achievement in the transition

from high school to university (Parker, Summerfeldt, Hogan, & Mjeski, 2004). The findings indicated that academic success was strongly associated with several dimensions of EI. However, weaker correlations were reported between EI and First year college GPA. Likewise, a study conducted in Nigeria found that EI and self-efficacy were significantly correlated with academic achievement, and a moderating effect of EI was suggested on the relationship between academic self-efficacy and achievement (Adeyemo, 2007).

In general, the findings suggest that educational outcomes might be improved by targeting skills related to emotion management and problem-focused coping. For example, coping skills significantly mediated emotion management and GPA (MacCann, Fogarty, Zeidner, & Roberts, 2011). Another study of undergraduate students found that EI facilitated stress resilience to physiological responses to stress (Schneider, Lyons, & Joseph, 2013). Interestingly, however, the findings differed for men and women. Even though women indicated higher emotional management (a component of Emotional Intelligence) than men, they did not appear to experience reduced stressors. Thus, in this research, the importance of EI is highlighted. However, despite a number of studies that found a significant relationship between EI and academic achievement, other studies (e.g.; Bradshaw, 2008) did not find a relationship between EI and academic achievement when gender was controlled.

Resilience

The social ecological theory of resilience gives attention to the process whereby individuals who face significant challenges interact with their environment to optimize

personal success (Ungar & Liebenberg, 2011). In other words, resilience is an interactive concept in which the presence of resilience can be inferred from individual differences in the experience of significant major adversities or stressors. For the purpose of this study, resilience is defined as “both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being and their capacity individually and collectively to negotiate for these resources to be provided and experienced in culturally meaningful ways” (Ungar, 2008, p. 225). In a study of 1190 college freshmen, the role of attachment style and resilience were examined to predict college adjustment of freshmen students, measured by first semester GPA and score on subscales of the Student Adaptation to College Questionnaire (Fassig, 2003). Despite many studies finding that attachment is a significant factor to predict college adjustment, the study found that attachment style did not predict adjustment to college; however, resilience was significant and a better predictor than high school GPA, ACT score, and level of life stress of adjustment to college.

Confidence Persistence

Student retention has been the primary goal for higher education institutions for several decades. Certainly it has been the focus of research among scholars to improve retention rates; however, attrition rates have endured despite significant efforts to close the gap (ACT, 2004b; Braxton, Brier, & Steel, 2007). Different factors have been proposed as predictors of persistence in college students (Pascarella & Reason, 2005). The hypothesis is that students come to college with a variety of personal, social, and academic backgrounds and experiences that prepare them and dispose them to engage

with the formal and informal learning opportunities (Reason, 2009). Precollege characteristics of students, including academic motivation, self-discipline, and self-confidence were directly correlated with student persistence (ACT, 2007; Reason, 2009). Furthermore, students with clear academic goals, strong academic skills, college social connections, a commitment to college, and an interest in their subject matter are more likely to persist (Reason, 2009; Sabharwal, 2005). However, one difficulty in this research is related to the outcome variable. Administrators are most interested in retention at their institution, typically the six-year graduation rate. This time frame requires researchers to conduct longitudinal studies over a 4-6 year period to wait for the outcome of interest to occur. However, if a *proxy measure* could be developed, assessed in the first or second year of college with high predictive accuracy for eventual retention after six years, this would be a great benefit to researchers. Literature from “turnover intention” in business and industry suggests some self-report items that might be adapted for use in studies of college student retention (Bothma & Roodt, 2013; Byrne, 2005; Muliawa, Green, & Robb, 2009).

The Present Study

Thus, there is a continued need for research in the area of student retention and persistence to graduate in college. Although secure attachment may be a source of resilience for coping challenges in general, there are a limited number of studies addressing the relationship between attachment and adjustment to college, and no known studies explored the same project exploring impact of attachment, EI, and resilience on adjustment to college and confidence of persistence in college. Therefore, we have two

main goals for the present study. First is to examine the role of adult attachment, emotional intelligence, and resilience as predictors of student adjustment to college. Second, to field test a confidence to persist of the current participants, “Confidence in Persistence” measure were composed with items from the turnover intention literature. This instrument will provide a second outcome measure in addition to dimensions of academic adjustment. For this study, that is the only way it will be used. However, we will begin a new six-year longitudinal study to investigate the predictive power of this measure, and all the other data collected for this project. Specifically, the following four hypotheses are investigated in the present study:

Hypothesis 1: emotional intelligence (clarity, repair, attention), adult attachment (anxiety, avoidance) and resilience will have significant effects on the students’ academic adjustment to college.

Hypothesis 2: emotional intelligence (clarity, repair, attention), adult attachment (anxiety, avoidance) and resilience will have significant effects on the students’ social adjustment to college.

Hypothesis 3: emotional intelligence (clarity, repair, attention), adult attachment (anxiety, avoidance) and resilience will have significant effects on the students’ personal adjustment to college.

Hypothesis 4: emotional intelligence (clarity, repair, attention), adult attachment (anxiety, avoidance) and resilience will have significant effects on the students’ engagement to college.

Chapter 2

Materials and Methods

Participants

From an initial sample of 284 first year college students recruited from introductory psychology courses via the psychology department's web-based sign-up system, a final sample of 210 (74%) provided useable data. Of these, 81 (39 %) were males, 128 (61%) were females and 1 participant did not identify his/her gender. The mean age of the participants was 18.04 years ($SD = 0.29$, range =18-19). With regard to racial/ethnic identification, 172 (82%) indicated "Caucasian/European American," 8 (3.8%) as "Asian/Asian-American," 24 (11.4%) as "Black/African-American," 6 (2.9 %) as "Hispanic," 2 (1%) as "Native Americans," 4 (1.9%) as "multiracial (more than one race)" and 2 (1 %) as "other". To determine the number of participants needed, a statistical power analysis was conducted using the G*Power software (Faul, Erdfelder, Buchner, & Lang, 2013) available online. My goal was to recruit a sample large enough to obtain statistical power of .85 to detect a correlation in the population of modest size, $r = .20$, at the alpha = .05 level. The G*Power results indicated that a sample of 221 was sufficient. Validity items were included such as "please code a five for this item" and "please leave this item blank" to identify random or inattentive responses. From the initial sample of 284 participants, ($n = 74$) answered one or more of the 5 validity items in the screened direction. They were excluded from final analysis, which left a final sample of 210.

Instruments

Trait Meta Mood Scale (TMMS; Salovey et al., 1995) is a 30-item scale that was developed to measure the components of EI. The TMMS consists of three factors (a) Attention (13 items; e.g., “People would be better off if they felt less and thought more”), (b) Clarity (11 items; e.g., “I can never tell how I feel” reverse keyed), and (c) Repair (six items; e.g., “No matter how badly I feel, I try to think about pleasant things”).

Respondents used a 5-point Likert-type scale, 1 (*Strongly disagree*), 2 (*Somewhat disagree*), 3 (*Neither agree nor disagree*), 4 (*Somewhat agree*), 5 (*Strongly agree*).

Higher subscale scores indicate higher EI. Internal consistency reliability for the three subscales were $\alpha = .86$, $\alpha = .88$ and $\alpha = .82$, respectively in a sample of university students (Salovey et al., 1995). Ghorbani, Bing, Watson, Davison and Mack (2002) studied the TMMS validity with measures of alexithymia, public and private self-consciousness, depression, anxiety, self-esteem, and perceived stress in a sample of university students. The results indicated that the reliability of the total TMMS and its three factors was $\alpha = 0.86$, $\alpha = 0.82$, $\alpha = 0.85$, and $\alpha = 0.84$, respectively in a sample of university students. In the current study, the estimated internal consistency reliability was $\alpha = .85$ for the full TMMS scale and $\alpha = .86$, $\alpha = .84$, $\alpha = .82$ for attention, clarity, and repair, respectively.

The Hardiness Scale (HS-15, Barton, 2007) is a 15-item shortened version of the 30-item and previously 45-item original measure designed to assess resiliency to stress (Bartone, 1991; Bartone, Ursano, Wright, & Ingraham, 1989). The HS-15 has three

subscales: Commitment (five items; e.g., “Most of my life gets spent doing things that are meaningful”), Control (five items; e.g., “How things go in my life depends on my own actions”) and Challenge (five items; e.g., “I don’t like to make changes in everyday activities”), but only the total scale score was used in the current study. Higher scores indicate greater resilience. Items are rated on a 4-point scale ranging from 0 (*not at all true*), 1 (*A little true*), 2 (*quite true*), and 3 (*Completely true*). In undergraduate freshman military cadets, an internal consistency $\alpha = .78$ was identified for the full scale (Bartone, 2007). A three-week test-retest reliability coefficient was .78 for the total scale scores (Bartone, 2007). Scores on the 15-item short form correlated .82 with scores on the 45-item version. Furthermore, evidence of validity is provided based on a sample of undergraduate freshmen military cadets with 87% males and 13% females with mean age 18.90 years, in which HS scores were predictive of mental and physical health (Bartone, 2007). In the current study, internal consistency $\alpha = 0.60$ was identified for the 15 item scale.

Experiences in Close Relationships Scale (ECR, Brennan, Clark, Shaver, 1998): The ECR consists of 36 items assigned to two dimensions. The first dimension, “*Avoidance*” (18 items; e.g., “I prefer not to show a partner how I feel deep down”) is concerned with discomfort with closeness, which refers to an individual’s perception of availability of support from others. The second, *Anxiety* (18 items; e.g., “I worry about being abandoned”) relates to a fear of rejection and abandonment (Brennan et al., 1998). Respondents use a 7-point Likert-type scale ranging from 1 (*Disagree strongly*), 2 (*Disagree somewhat*), 3 (*Disagree slightly*), 4 (*Neutral mixed*), 5 (*Agree slightly*), 6

(*Agree somewhat*), to 7 (*Agree strongly*). The ECR is reported to have internal reliability $\alpha = .94$ and $.92$ for the avoidance and anxiety scales, respectively (Brennan et al., 1998) in a sample of undergraduate students. In a sample of undergraduate students, Shi, Wampler, and Wampler (2013) reported alpha $.94$ for avoidance and $.91$ for anxiety. In the present study, the subscales had an estimated internal consistency reliability of $\alpha = .95$, and $\alpha = .92$ for avoidance and anxiety, respectively.

Student Adaptation to College Questionnaire (SACQ; Baker, McNeil, & Siryk, 1985) is a self-report measure with 67 items. Note that the Institutional Adjustment and Social Adjustment subscales share eight items in common. Academic adjustment (24 items; e.g., “I am finding academic work at college difficult”) refers to various facets of the educational demands characteristic of the college experience. The social adjustment subscale (20 items; e.g., “I feel that I fit in well as part of the college environment”) pertains to various facets of the interpersonal-societal demands of college experience. The personal/emotional adjustment subscale (15 items; e.g., “Being on my own, taking responsibility for myself, has not been easy”) aims to determine how the student is feeling both psychologically and physiologically, whether he or she is experiencing general psychological distress and its somatic accompaniments. The institutional engagement subscale (15 items; e.g., “I feel that I fit in well as part of the college environment”) focuses on student’s feelings about being in college in general and at the college of attendance in particular, especially to the quality of the relationship or bond that is established between the student and the institution. Each item is rated on a 9-point partially anchored scale ranging from 1 (*Applies very closely to me*) to 9 (*Doesn’t apply*

to me at all). Internal consistency (coefficient alpha) for the full scale from different studies (all with undergraduate samples) ranged between .92 and .95; for academic adjustment, .81 to .90; for the social adjustment subscale from .83 to .91; for the personal/emotional adjustment subscale from .77 to .86; and for the engagement subscale from .85 to .91 (Baker et al., 1985). The SACQ items for the current study were academic adjustment, $\alpha = .89$; social adjustment, $\alpha = .86$; Personal/emotional adjustment, $\alpha = .81$; academic engagement, $\alpha = .84$.

Procedure

Data was collected using a web-based survey via “Qualtrics.” Potential participants used a link to access the survey once they selected the study from the Psychology Department list of IRB approved studies. The first page of the survey presented the informed consent. If the participants indicated their consent by clicking the “yes” box on the consent form, then the initial page of the survey instrument appeared. If participants clicked “no” on the consent form, the browser window presented a notice indicating that a “yes” answer was necessary to continue. Early in the informed consent, the students were told that a required part of this project was that they must provide their name and email address, and that the email address would be used to track their continuing enrollment at UT over the next six years. We assured them specifically that we would not have any access to their academic records, but only to the publically available “people finder” list of email addresses. Further, the data they provided on Qualtrics was downloaded and labeled only with a code number that does not, in itself, provide any information about their identity. A separate “key list” of code numbers and

email addresses was maintained, and stored in an office apart from the survey data. In each subsequent academic year, this list will be used to generate a dichotomous variable “still enrolled vs. not enrolled” by code number (but not email), which will then be used to update the survey data. We understand that email is not a foolproof means of tracking enrollment, but we believe this was far preferable to asking permission for access to enrollment records.

Chapter 3

Results

Preliminary Analysis

The first preliminary analysis was to check for sex differences between male and female students in variables of interest. One-way multivariate analysis of variance (MANOVA) was used for this analysis. Results of the first analysis indicated a significant sex difference, Pillai's trace = .09, $F(10, 209) = 2.07$, $p = .029$. Univariate tests indicated that there were significant differences between men and women with regard to SACQ-academic adjustment, $p = .007$ and TMMS-emotion attention, $p = .012$. A second MANOVA was used to test for differences in ethnic/racial identification, but because of the small numbers in many groups, participants who identified themselves as Black/African American, Asian American, Hispanic, Native Americans, more than one ethnicity and "other" were grouped together, and labeled as 'people of color' ($n = 38$) who were compared with participants who identified themselves as white ($n = 172$). The second MANOVA suggested no significant difference between students of color (as a single group) and White students, Pillai's trace = 0.094, $F(60,209) = 1.11$, $p = .267$. Table 1 reports means, and SDs for men and women, and for White vs. students of color.

Exploration of Research Questions

Bivariate correlational analyses were completed to explore the relationship among the 12 variables of interest. Due to the high number of correlations and inflation of experiment-wise error, only correlations $p < .001$ will be discussed. Perhaps the most

Table 1 Mean Differences by Sex and Ethnic/racial Identification.

Dependent Variable	Women		Men		<i>t</i>	People of Color		Whites		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1.SACQ academic	6.60	1.11	6.18	1.06	-2.72**	6.47	1.11	6.43	1.10	-.22
2.SACQ social	6.59	1.19	6.58	1.08	-.07	6.72	.93	6.56	1.20	-1.00
3.SACQ personal	5.59	1.23	6.01	1.17	.38	6.21	1.24	5.91	1.19	-1.49
4.SACQ engagement	7.39	1.04	7.23	1.06	-1.04	7.38	.97	7.32	1.07	-.37
5.TMMS repair	3.87	.73	3.75	.85	-1.02	3.64	.68	3.87	.80	1.79
6.TMMS attention	3.71	.58	3.48	.70	-2.53*	3.67	.52	3.60	.67	-.65
7.TMMS clarity	3.40	.70	3.44	.58	.38	3.46	.65	3.41	.66	-.50
8.ECRS- avoidance	3.02	1.26	2.93	1.08	-.47	3.23	1.17	2.92	1.20	-1.56
9. ECRS-anxiety	3.76	1.25	3.44	1.16	-1.82	3.47	1.34	3.68	1.19	1.02
10.HS-resilience	2.45	.38	2.43	.33	-.42	2.40	.42	2.46	.34	1.02

Note. *n* = 210 SACQ = Student Adaptation to College Questionnaire; TMMS = Trait Meta Mood Scale; ECRS = Experience in Close Relationship Scale; HS = Dispositional Hardiness Scale

p* < .05 *p* < .01

noteworthy findings from this table can be seen in the fourth row, because SACQ academic engagement is the dependent variable that may be most strongly related to student retention. In addition to all three of the other SACQ subscales, SACQ engagement was significantly correlated with TMMS repair and clarity, as well as Dispositional Hardiness. The first row shows that SACQ academic adjustment was significantly correlated, $p < .001$ with the same variables, with the addition of TMMS attention to feelings.

Four multiple regression analyses were conducted to predict each of the four subscales of the SACQ (academic adjustment, social adjustment, personal/emotional adjustment, and academic engagement). All four analyses included the subscales of TMMS (mood repair, emotion attention, and emotion clarity), ECRS (avoidance, anxiety) and Hardiness as predictors.

In the first analysis, SACQ-academic adjustment served as the criterion. Table 3a shows that the six predictors together accounted for a significant proportion of the variance, adjusted $R^2 = .20$, $F(6,203) = 9.63$, $p = .001$. Three of the six independent variables were significant unique predictors, resilience, emotional attention, and emotional clarity.

For the second analysis, SACQ social adjustment served as the criterion. Table 3b shows that the six predictors together accounted for a significant proportion of the variance, adjusted $R^2 = .12$, $F(6,203) = 5.75$, $p = .001$. Mood repair was the only significant unique predictor out of the six independent variables.

Table 2 Mean, Standard Deviations and intercorrelations of the subscales of Adult Attachment, Emotional Intelligence, Resilience, Academic Adjustment, Social Adjustment, Personal Adjustment, and Attachment/Institutional adjustment

Correlations	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1.SACQ - academic	6.44	1.10	-	.35***	.59***	.46***	.18**	.26***	.28***	-.16*	-.18**	.35***
2.SACQ - social	6.59	1.14		-	.43***	.84***	.29***	.04	.26***	-.12	-.23**	.19**
3.SACQ -personal	5.98	1.20			-	.42***	.18**	.12	.45***	-.18**	-.41***	.27***
4.SACQ - engagement	7.33	1.05				-	.26***	.03	.27***	-.10	-.17*	.26***
5.TMMS repair	3.82	.78					-	.29***	.24***	-.13	-.13	.29***
6.TMMS attention	3.61	.64						-	.10	-.24***	.16*	.12
7.TMMS clarity	3.42	.66							-	-.32***	-.38***	.22**
8.ECRS-avoidance	2.99	1.19								-	.22***	-.08
9. ECRS-anxiety	3.64	1.22									-	-.15*
10.HS-resilience	2.44	.36										-

Note. $n = 210$ SACQ = Student Adaptation to College Questionnaire; TMMS = Trait Meta Mood Scale; ECRS = Experience in Close Relationship Scale; HS = Dispositional Hardiness Scale

* $p < .05$ ** $p < .01$ *** $p < 0.001$

Table 3 Summary of multiple regression analysis of subscales of TMMS, ECRS and HS predicting students' academic adjustment to college

Variables	R	R ²	Adjusted R ²	F test		r	β	t(203)
				F	df			
SACQ- academic adjustment	.47	.22	.20	9.63***	6			
TMMS- repair						.18**	-.02	-.26
TMMS- attention						.26***	.24	3.49** *
TMMS- clarity						.28***	.15	2.11*
ECRS-avoidance						-.16*	-.00	-.05
ECRS-anxiety						-.18**	-.12	-1.76
HS- resilience						.35***	.28	4.18** *

Note. $n = 210$ SACQ = Student Adaptation to College Questionnaire; TMMS = Trait Meta Mood Scale; ECRS = Experience in Close Relationship Scale; HS = Dispositional Hardiness Scale.

* $p < .05$ ** $p < .01$ *** $p < 0.001$

Table 4 Summary of multiple regression analysis of subscales of TMMS, ECRS and HS for students' social adjustment to college

Variables	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	<i>F</i> test		<i>r</i>	β	<i>t</i> (203)
				<i>F</i>	<i>df</i>			
SACQ- social adjustment	.38	.14	.12	5.75***	6			
TMMS- repair						.29***	.22	3.08**
TMMS- attention						.04	-.03	-.47
TMMS- clarity						.26***	.13	1.77
ECRS-avoidance						-.12*	-.02	-.32
ECRS-anxiety						-.23***	-.13	-1.72
HS- resilience						.19**	.09	1.26

Note. *n* = 210 SACQ = Student Adaptation to College Questionnaire; TMMS = Trait Meta Mood Scale; ECRS = Experience in Close Relationship Scale; HS = Dispositional Hardiness Scale.

p* < .05 ** *p* < .01 * *p* < 0.001

In the third analysis, SACQ-personal/emotional adjustment served as the criterion. Table 3c shows that the six predictors together accounted for a significant proportion of the variance, adjusted $R^2 = .28$, $F(6,203) = 14.85$, $p = .001$. Three of the six independent variables were significant unique predictors, resilience, anxiety, and emotional clarity.

In the last analysis SACQ-academic engagement served as the criterion. Table 3d shows that that the six predictors together accounted for a significant proportion of the variance, adjusted $R^2 = .12$, $F(6,203) = 5.78$, $p = .001$. Three of the six independent variables were significant unique predictors; resilience, mood repair, and emotional clarity.

Table 5 Summary of multiple regression analysis of subscales of TMMS, ECRS and HS for students' personal/emotional adjustment to college

Variables	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	<i>F</i> test		<i>r</i>	β	<i>t</i> (203)
				<i>F</i>	<i>df</i>			
Personal/emotional adjustment	.55	.30	.28	14.85***	6			
TMMS- repair						.18**	-.00	-.04
TMMS- attention						.12*	.12	1.91
TMMS- clarity						.45***	.29	4.39***
ECRS-avoidance						-.19**	-.02	.27
ECRS-anxiety						-.41***	-.29	-4.46***
HS- resilience						.27***	.15	2.36*

Note. *n* = 210 SACQ = Student Adaptation to College Questionnaire; TMMS = Trait Meta Mood Scale; ECRS = Experience in Close Relationship Scale; HS = Dispositional Hardiness Scale.

p* < .05 ** *p* < .01 * *p* < 0.001

Table 6 Summary of multiple regression analysis of subscales of TMMS, ECRS and HS for students' academic engagement to college

Variables	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	<i>F</i> test		<i>r</i>	β	<i>t</i> (203)
				<i>F</i>	<i>df</i>			
SACQ- academic engagement	.38	.15	.12	5.78***	6			
TMMS- repair						.26***	.19	2.61**
TMMS- attention						.03	-.06	-.89
TMMS- clarity						.27***	.18	2.36*
ECRS-avoidance						-.10	-.02	-.21
ECRS-anxiety						-.17*	-.04	-.51
HS- resilience						.26***	.17	2.41*

Note. *n* = 210 SACQ = Student Adaptation to College Questionnaire; TMMS = Trait Meta Mood Scale; ECRS = Experience in Close Relationship Scale; HS = Dispositional Hardiness Scale.

p* < .05 ** *p* < .01 * *p* < 0.001

Chapter 4

Discussion

Student adaptation to college has been a significant factor for students' retention and persistence to graduate (Schneider et al., 2013). Despite a significant effort to retain students in colleges, student attrition has been increasing and was a constant worry to university and college administrators. To fill the gap in research and ultimately suggest possible factors that could improve students' retention and persistence to graduate, this study investigated a model composed of four academic adjustment outcomes: academic, social, personal, and engagement/attachment); predicted by three sets of variables (a) adult attachment (avoidance and anxiety), (b) emotional intelligence (repair, attention, clarity), and (c) resilience to predict student adaptation to college. The next section will discuss findings related to each of the outcomes in turn one by one, combining results of bivariate correlations (Table 2) and multiple regressions, Table 3.

With regard to academic adjustment (e.g., attending classes regularly, satisfied with program courses, enjoying academic work) bivariate correlations suggest that all three emotional intelligence factors (repair, attention, clarity), and resilience were positively correlated, whereas both attachment factors (avoidance and anxiety) were significantly negatively correlated with academic adjustment. Thus, of the four subscales of the SACQ, academic adjustment is the most correlated ($r = -.69$) to the global measures of presenting symptoms used at a counseling center, such as the Counseling Center Assessment of Psychological Symptoms (CCAPS) (Beyers & Goossens, 2002; McAleavey, Nordberg, Hayes, Castonguay, Locke, & Lockard, 2012). Results of

multiple regression analyses (see Table 3a) suggest that of the significant bivariate predictors, clarity, attention, and resilience were also significant unique predictors of academic adjustment. These variables combined to predict 20% of the variance in academic adjustment.

The second outcome in this study was social adjustment (e.g., satisfied with social life, has good friends to talk about problems, pleased about decision to attend this college). Bivariate findings suggested that only emotional intelligence repair and clarity were significant predictors at the $p < .001$ level, whereas the multiple regression analyses shown in Table 3b suggest that only repair was a significant unique predictor. Together, the set of predictors accounted for 14% of the total variance. Clarity, attention, anxiety, avoidance and resilience did not significantly predict students' social adjustment to college.

The third outcome in the study was personal adjustment. The term may be confused with social adjustment, but in fact emotional adjustment refers to (e.g., feels blue and moody, is not sleeping well, has trouble coping with college stress). Bivariate correlational analysis suggested that emotional intelligence (clarity) and resilience were positively correlated, and attachment anxiety was negatively correlated with emotional adjustment at the $p < .001$ level. Multiple regressions identified the same predictors as significant, with the entire group of seven predictors accounting for 30% of the variance in emotional adjustment – the most of any SACQ subscale.

Finally, the fourth outcome was academic engagement (e.g., pleased with decision to go to this college, expects to finish bachelors degree, is thinking about transferring to

another college). Bivariate correlations identified repair, clarity, and resilience as significantly correlated at the $p < .001$ level, with each of these variables also standing out as significant unique predictors in the multiple regression analysis. These results are in line with other research that has found clarity and repair (Extremera & Fernandez-Berrocal, 2005) and resilience (Fassig, 2003) significantly and positively related to academic engagement. In total in the current study, all predictors accounted for 12% of the variance in academic engagement, which was the least of any of the four SACQ subscales.

Considering the independent variables, very strong support across the analyses point to the importance of emotional intelligence clarity and repair. The third component of EI, attention (to feelings) was less important across the board, but nevertheless appears to be very important for academic adjustment. Clarity, attention, and repair, respectively, involve the ability to: (a) clearly understand emotions and emotional knowledge, (b) access and generate emotions, and (c) reflectively regulate emotions – all to promote emotional and intellectual growth (Mayer et al., 2008). Individuals who score higher on repair, attention and clarity tend to develop good coping skills to regulate and manage negative emotions (Salovey et al., 1995). Students with more emotional recovery tend to adjust well to the various interpersonal-societal demands of college than their counterparts (Baker & Siryk, 1989). Previous research has shown, and this study confirms, that attention, clarity and resilience predicted student academic adjustment, accounting for 22% of the variance (Baker & Siryk, 1989; Fassig, 2003; Malek, Noor-Azniza, & Farid, 2011). Similar to previous studies (e.g., Fitness & Curtis, 2005, see

limitations of this study for detail), dimensions of emotional intelligence were not all significantly related to one another; in particular, repair was weakly but significantly correlated to attention and clarity but attention was not significantly correlated to clarity. This study found that the influence of EI (clarity) ubiquitous on student personal adjustment to college, and attachment styles of avoidance, and anxiety. We also found resilience and anxiety moderately and significantly correlated with student academic adjustment and student personal adjustment, respectively. Similarly, repair, clarity and resilience predicted student academic engagement.

Results of this study also highlight the importance of Resilience. It was a significant unique predictor of three adjustment factors (i.e., all except social adjustment). Resilience involves the ability to develop different skills to navigate psychological, social, cultural and physical resources to deal with different and significant major life adversities or stressors (Ungar, 2008). Individuals who score higher on resilience are stress resistant –committed to what they are doing, confident they can influence their surroundings and outcomes, and able to regard major life events and transformations as challenges to be mastered rather than threats to be passively and bitterly endured or energetically denied (Kobasa, 1982). Hardy students with more ability to understand their emotions and recover easily tend to be satisfied more with college experience in general and their attending college in particular (Adeyemo, 2007; Baker & Siryk, 1989).

Of the three sets of predictors, results suggest that attachment anxiety and avoidance were the least important in predicting academic adjustment. Theories on attachment and emotion regulation indicate that attachment systems and person's emotion

regulation are highly interrelated and play an important role in shaping the person's emotional responses (Brennan et al., 1998). Previous research found that individuals who score higher on avoidance and anxiety tend to be fearful of depending on others and creating interpersonal intimacy and excessively work to be self-reliant and are reluctant to self-disclose (Brennan et al., 1998). Such individuals suffer from clinically significant emotion problems such as depression, anxiety, and interpersonal distress or loneliness (Brennan et al., 1998) as well as poor judgment and coping skills (Bowlby, 1988). When an individual processes internal or external threat, the person tends to seek proximity to protective others (or to evoke mental representation of them) as a means of managing the threat and restoring emotional balance (Mikulincer & Shaver, 2010).

Students with more emotional clarity, resilience and secure attachment style appeared to be psychologically and physically healthier than their peers (Baker & Siryk, 1989). An available and responsive attachment figure facilitates coping with threats and attaining states of positive emotion (Mikulincer & Shaver, 2010). Students with secure attachment (i.e., low anxiety and avoidance) promote healthy, flexible and reality-attuned emotion regulation and tend to experience and express emotions without defensive distortions (Mikulincer & Shaver, 2010). In contrast, attachment insecurities (e.g., anxiety) contribute to distortion or denial of emotional experience, unconscious suppression of potentially functional emotion, dysfunctional rumination on threats, and poor coping skills (Mikulincer & Shaver, 2010). In this study, students who scored higher on anxiety (attachment insecurity) tended to adjust poorly (emotionally) to their college.

Close relationships with available, sensitive and supportive attachment figures—good parents and loving partners, for example – help people become happier and more resilient in the face of adversity (Mikulincer & Shaver, 2010). Similar benefits could flow from good relationships with mentors, coaches and peers. Further research may investigate how student’s relationships with mentors, coaches, and peers could facilitate students’ adaptation to college. As Bowlby (1980) noted, individuals can cope well with loss of relationship partners and other distressing or traumatic events, without having to deny their suffering or suppress authentic emotions, including anger, fear, and sadness. Their emotions flow freely, but without causing disorganization or disorientation.

One reason that attachment anxiety and avoidance may not have emerged as a significant unique predictor is because of shared variance with both resilience and emotional intelligence. For example, secure people tend to have commitment to their personal identities, careers, close relationships, social groups, and organizations (without being ego- or ethnocentric); have a sense of control, mastery, and personal agency; and have cognitive and emotional openness to a wide range of experiences (Kobasa, 1982). Equipped with these qualities, secure people appraise potentially stressful events as manageable, as problems to be solved and overcome realistically, and they both rely on their effective coping skills and turn to others for comfort and support if necessary (Mikulincer & Shaver, 2010). Behavioral flexibility is more favored, as a key feature of resilience and successful adaptation to college (Mikulincer & Shaver, 2004).

Finally, it is important to highlight the very high positive correlation between SACQ social adjustment and academic engagement ($r = .84$). These results seem

consistent with Tinto's Interactional Model of students persistence that a student who has greater social integration with his or her college is highly likely to engage institutionally, which in turn persists to graduate (Tinto, 2012). This means, an individual who engages with the environment (in this case, his or her institution) when faced with major life adversities optimize personal success by locating resources and seeking support (Ungar & Liebenberg, 2011). In other words, students who interact with mentors, instructors, advisors, and peers have high chance of academic success and satisfaction with educational experience (Adeyemo, 2007; Tinto, 2012).

Limitations and Future Directions

It should be emphasized, that these results should be interpreted with important limitations. The present study is correlational in nature and thus does not provide evidence of causality. The measures used to examine validity of EI construct were not clearly presented. Even though not tested in the current study, previous studies reported that clarity and repair has significant interscale correlation and share about 19% overlapping variance (Salovey et al., 1995). Especially with the clarity subscale, some concerns have been raised. Previous research indicated, "The ability to discriminate among feelings states (particularly the emotional state of others) may not be adequately assessed by the clarity dimension of the TMMS" (Fitness & Curtis, 2005). Future studies should explore the clarity subscale with ability measures of emotion perception and social acuity (Fitness & Curtis, 2005).

As a methodological strategy, self-report measures have potential limitations. For example, for the reasons of self-enhancement and social desirability, individuals may

provide untrue responses to survey questions. Future research in this area should seek to control for potentially confounding influences like social desirability.

With respect to the development and validity of HS, further work is required. For example, the instrument is developed aiming at military personnel. The construct and predictive validity may be affected because of the norms used to develop this scale. Even though previous research reported internal consistency of $\alpha = .82$, the current study produced correlation coefficient alpha .60 (Bartone, 2007).

If findings of this study were confirmed by future research, important implications for counseling and higher education would be suggested. Successful social adjustment is related to accurate perceptions of variations in others' mood, which suggests that emotion perception is essential in adaptation on a social level. Attachment theories maintain that early parental bonds affect the view of the developing child of both himself and herself and the social world. Whether students view themselves as effective actors in a social world that is generally responsive to their efforts may depend on how responsive their early caregivers have been (Mallinckrodt, 1992). In other words, early secure attachment enhances students' general adjustment to college. For example, one study examined the number of advisor meetings and found that for every meeting with an academic advisor predicted the odds that a student will be retained increases by 13% (Swecker, Fifolt, & Searby, 2013).

If the findings are confirmed by future research, results point to the need of counseling interventions and administrative involvement to focus on maintaining healthy coping skills and emotion regulation, building social skills, for using resources, as well as

providing the resources themselves. To build these skills, psychologists or counselors in collaboration with the institution administration could provide skill oriented classes focusing on developing healthy coping skills, emotion/stress management and interpersonal skills that permit a corrective experience suggested by this study as important for better college adjustment and thus, persistence to graduate. Clearly, there is a need of more research to identify and measure the variables that may influence students to adjust academically, socially, emotionally and institutionally, including students' perceived and available social, emotional and financial support, current and past academic performance.

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Appendix

Survey measures

Informed Consent

Risk and Protective Factors for Persistence in College

PURPOSE: Thank you very much for considering this study! Note that you must be over the age of 18 to participate. Recent statistics suggest that a significant percentage of students who enroll in UT do not complete their degree here. The general purpose of this study is to examine variables that might predict persistence in undergraduate education at UT. If you agree to participate in this study, you are asked to complete this online survey and provide your name and email address. You also agree to allow us to check the student email directory online UT “people finder” (available to the general public) each semester for the next six years to see which of the participants in this study remain enrolled in UT. Continued enrollment “persistence” is the main dependent variable in this study. In addition, we will examine the following variables that may be predictors of persistence: adjustment to college, social support, resilience, and quality of close relationship attachments.

PROCEDURE: In addition to allowing us to check your listing in the student email directory each semester, participation in this study requires you to complete an online survey that follows this introductory page, all in one sitting. Pilot testing suggests it should take no more than 30 minutes, but you will receive research incentives equivalent to one hour of participation.

RISKS : We anticipate minimal risk to you as a result of your participation in this study. One risk is that your confidentiality might be compromised during the period that both

your name, email, and survey responses are stored together (from now through April 25, 2014). We believe the procedures described below to secure the data will minimize this risk, both while the data are online and afterward when the identifying information is stored separately. A second risk might be a negative reaction to some of the survey items. To minimize this risk, you are free to skip any item you wish. You are also free to stop participating at any time. If you find that some of the survey items cause you to recall or think about stressful situations, and your distress persists, we encourage you to consider contacting the UT Counseling Center. Phone: 974-2196 Email: studentcounseling@utk.edu

CONFIDENTIALITY: Your responses will be stored in a secure database until they are downloaded in the last week of this semester. Mr. Tekie will be the only person with a password to this database. After downloading the online file will be deleted, and the digital file stored in Dr. Mallinckrodt's computer will be changed so that only a four-digit code name is used to label the completed surveys. Names and email address information will be removed and replaced with this randomly assigned code. A separate paper list of names, email address, and code label will be maintained by Mr. Tekie in a locked file in a room (Dr. Mallinckrodt's lab) located apart from the computer with the survey data. Once each semester, Mr. Tekie will check the "people finder" email list to determine who is still enrolled at UT. He will then send the code numbers (but not the name or email) with this updated information to Dr. Mallinckrodt. We hope results of the research will be published in a scientific journal and presented at a conference. However, there will not be "case reports" of individuals cases, even anonymous reports.

BENEFITS: We hope to gain valuable information about how individual traits and the ability to manage stress are associated with academic persistence. We hope this information will be of future value to UT and other universities as they make efforts to increase student retention. There are no individual benefits to you except for the incentive described in the next section.

INCENTIVES : You will receive research participation credit for one hour of participation.

CONTACT INFORMATION : If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study) you may contact the researcher, Dr. Brent Mallinckrodt, at 312 Austin Peay, 1404 Circle Drive, Knoxville, TN 37996, or by phone at 974-4342. If you have questions about your rights as a participant, contact the Office of Research Compliance Officer at (865) 974-3466.

PARTICIPATION : You must be in your first “freshman” year of studies at UT and aged 18 or older to participate in this study. Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at anytime without penalty and without loss of benefits to which you are otherwise entitled.

CONSENT:

I have read the above information. I am a first year student at UT and at least 18 years old.

I agree to participate in this study and to allow the researchers to check the public UT student directory to determine my enrollment status through 2020. <<*Checking this box and clicking [next] will allow participants access to the remainder of the survey.* >>

I do not agree to participate. <<*Checking this box and clicking [next] will lead to a “bounce back” page with the message “You must agree to participate in order to continue with the survey.” The only navigation button available will be [Back].* >>

Demographic items

General instructions: This survey contains a number of individual sections, each with its own instructions and response scale. If you aren't certain, generally your first impression is the best way to answer.

Age _____

Sex Female Male

Please code the responses that best describes your ethnic identifications, check as many as apply to you

African American

Asian American

Caucasian, Euro-American

Hispanic, Latina/Latino

Native American

other, not listed above

Experiences in Close Relationships Scale (ECRS)

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Please use the following rating scale:

1	2	3	4	5	6	7
Disagree strongly	Disagree somewhat	Disagree slightly	Neutral mixed	Agree slightly	Agree somewhat	Agree strongly

1. I prefer not to show a partner how I feel deep down.
2. I worry about being abandoned.
3. I am very comfortable being close to romantic partners.
4. I worry a lot about my relationships.
5. Just when my partner starts to get close to me I find myself pulling away.
6. I worry that romantic partners won't care about me as much as I care about them.
7. I get uncomfortable when a romantic partner wants to be very close.
8. I worry a fair amount about losing my partner.
9. I don't feel comfortable opening up to romantic partners.
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
11. I want to get close to my partner, but I keep pulling back.
12. I often want to merge completely with romantic partners, and this sometimes scares them away.

13. I am nervous when partners get too close to me.
14. I worry about being alone.
15. I feel comfortable sharing my private thoughts and feelings with my partner.
16. My desire to be very close sometimes scares people away.
17. I try to avoid getting too close to my partner.
18. I need a lot of reassurance that I am loved by my partner.
19. I find it relatively easy to get close to my partner.
20. Sometimes I feel that I force my partners to show more feeling, more commitment.
21. I find it difficult to allow myself to depend on romantic partners.
22. I do not often worry about being abandoned.
23. I prefer not to be too close to romantic partners.
24. If I can't get my partner to show interest in me, I get upset or angry.
25. I tell my partner just about everything.
26. I find that my partner(s) don't want to get as close as I would like.
27. I usually discuss my problems and concerns with my partner.
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
29. I feel comfortable depending on romantic partners.
30. I get frustrated when my partner is not around as much as I would like.
31. I don't mind asking romantic partners for comfort, advice, or help.
32. I get frustrated if romantic partners are not available when I need them.
33. It helps to turn to my romantic partner in times of need.
34. When romantic partners disapprove of me, I feel really bad about myself.

35. I turn to my partner for many things, including comfort and reassurance.

36. I resent it when my partner spends time away from me.

Trait Meta-Mood Scale (TMMS)

Please read each statement and decide whether or not you agree with it. Place a number in the blank line next to each statement using the following scale:

1	2	3	4	5
strongly disagree	somewhat disagree	neither agree nor disagree	somewhat agree	strongly agree

1. I try to think good thoughts no matter how badly I feel.
2. People would be better off if they felt less and thought more.
3. I don't think it's worth paying attention to your emotions or moods.
4. I don't usually care much about what I'm feeling.
5. Sometimes I can't tell what my feelings are.
6. I am rarely confused about how I feel.
7. Feelings give direction to life.
8. Although I am sometimes sad, I have a mostly optimistic outlook.
9. When I am upset I realize that the "good things in life" are illusions.
10. I believe in acting from the heart.
11. I can never tell how I feel.
12. The best way for me to handle my feelings is to experience them to the fullest.
13. When I become upset I remind myself of all the pleasures in life.
14. My belief and opinions always seem to change depending on how I feel.
15. I am often aware of my feelings on a matter.

16. I am usually confused about how I feel.
17. One should never be guided by emotions.
18. I never give in to my emotions.
19. Although I am sometimes happy, I have a mostly pessimistic outlook.
20. I feel at ease about my emotions.
21. I pay a lot of attention to how I feel.
22. I can't make sense out of my feelings.
23. I don't pay much attention to my feelings.
24. I often think about my feelings.
25. I am usually very clear about my feelings.
26. No matter how badly I feel, I try to think about pleasant things.
27. Feelings are a weakness humans have.
28. I usually know my feelings about a matter.
29. It is usually a waste of time to think about your emotions.
30. I almost always know exactly how I am feeling.

Dispositional Hardiness Scale (HS)

Below are statements about life that people often feel differently about. Please show how much you think each one is true about you. Give your own honest opinions. There are no right or wrong answers!

1	2	3	4
not at all true	a little true	quite true	completely

1. Most of my life gets spent doing things that are meaningful
2. By working hard you can nearly always achieve your goals
3. I don't like to make changes in my regular activities
4. I feel that my life is somewhat empty of meaning
5. Changes in routine are interesting to me
6. How things go in my life depends on my own actions
7. I really look forward to my work activities
8. I don't think there is much I can do to influence my own future
9. I enjoy the challenge when I have to do more than one thing at a time
10. Most days, life is really interesting and exciting for me
11. It bothers me when my daily routine gets interrupted
12. It is up to me to decide how the rest of my life will be
13. Life in general is boring for me
14. I like having a daily schedule that doesn't change very much
15. My choices make a real difference in how things turn out in the end

Student Adaptation to College Questionnaire (SACQ)

Directions. These statements describe college experiences. Read each one and decide how well it applies to you at the present time (within the past few days.)

applies very closely	doesn't apply
to me	to me at all
1	2
3	4
5	6
7	8
9	

1. I feel that I fit in well as part of the college environment
2. I have been feeling tense or nervous lately
3. I have been keeping up to date on my academic work
4. I am meeting as many people, and making as many friends as I would like at college
5. I know why I'm in college and what I want out of it
6. I am finding academic work at college difficult
7. Lately I have been feeling blue and moody a lot
8. I am very involved with social activities in college
9. I am adjusting well to college
10. I have not been functioning well during examinations
11. I have felt tired much of the time lately
12. Being on my own, taking responsibility for myself, has not been easy
13. I am satisfied with the level at which I am performing academically
14. I have had informal, personal contacts with college professors
15. I am pleased now about my decision to go to college
16. I am pleased now about my decision to attend this college in particular

17. I'm not working as hard as I should at my course work
18. I have several close social ties at college
19. My academic goals and purposes are well defined
20. I haven't been able to control my emotions very well lately
21. I'm not really smart enough for the academic work I am expected to be doing now
22. Lonesomeness for home is a source of difficulty for me now
23. Getting a college degree is very important to me
24. My appetite has been good lately
25. I haven't been very efficient in the use of study time lately
26. 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.)
27. I enjoy writing papers for courses
28. I have been having a lot of headaches lately
29. I really haven't had much motivation for studying lately
30. I am satisfied with the extracurricular activities available at college
31. I've given a lot of thought lately to whether I should ask for help from the
Psychological/ Counseling Services Center or from a psychotherapist outside of college
32. Lately I have been having doubts regarding the value of a college education
33. I am getting along very well with my roommate(s) at college
(Please omit if you do not have a roommate.)
34. I wish I were at another college or university
35. I've put on (or lost) too much weight recently

36. I am satisfied with the number and variety of courses available at college
37. I feel that I have enough social skills to get along in the college setting
38. I have been getting angry too easily lately
39. Recently I have had trouble concentrating when I try to study
40. I haven't been sleeping very well
41. I'm not doing well enough academically for the amount of work I put in
42. I am having difficulty feeling at ease with other people at college
43. I am satisfied with the quality or the caliber of courses available at college
44. I am attending classes regularly
45. Sometimes my thinking gets muddled up too easily
46. I am satisfied with the extent to which I am participating in social activities at college
47. I expect to stay at this college for a bachelor's degree
48. I haven't been mixing too well with the opposite sex lately
49. I worry a lot about my college expenses
50. I am enjoying my academic work at college
51. I have been feeling lonely a lot at college lately
52. I am having a lot of trouble getting started on homework assignments
53. I feel I have good control over my life situation at college
54. I am satisfied with my program of courses for this semester/quarter
55. I have been feeling in good health lately
56. I feel I am very different from other students at college in ways that I don't like
57. On balance, I would rather be home than here

58. Most of the things I am interested in are not related to any of my course work at college
59. Lately I have been giving a lot of thought to transferring to another college
60. Lately I have been giving a lot of thought to dropping out of college altogether and for good
61. I find myself giving considerable thought to taking time off from college and finishing later
62. I am very satisfied with the professors I have now in my courses
63. I have some good friends or acquaintances at college with whom I can talk about any problems I may have
64. I am experiencing a lot of difficulty coping with the stresses imposed upon me in college
65. I am quite satisfied with my social life at college
66. I'm quite satisfied with my academic situation at college
67. I feel confident that I will be able to deal in a satisfactory manner with future challenges here at college

Confidence In Persistence (CP)

Note that these items will be distributed throughout the survey, not presented together.

1. I am thinking about dropping out from UT in the next 12 months:

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

2. How likely is it that you will still be enrolled at UT 12 months from now?

Not very likely

Somewhat likely

Quite likely

Absolutely sure I will be here

3. Please check the one statement below that best describes you:

I have very serious doubts that coming to UT was a good choice for me

About once per week, or more, I think that I might not stay at UT to finish my degree.

Occasionally, I have considered that I might not stay at UT to finish my degree.

I really have no serious doubts that I will stay at UT to finish a degree, but I am not completely certain about my major.

I am certain I will finish a degree at UT, and I am confident about my choice of major.

4. Which, if any of these, might be likely a reason you would drop out of UT during the next 12 months: (check all that apply)

- Financial considerations
- Parents/family need me at home
- Promising job opportunity
- Transfer to a different university/community college
- Travel, adventure, take a “stop out” year
- Get back together with romantic partner, end our long distance relationship
- I don’t feel that I fit in at UT
- Negative climate of discrimination on campus
- Knoxville is not my kind of place
- Lack of social interaction/opportunity
- Classes too big
- Professors/Instructors too distant
- Other (please briefly describe)
- None of these are likely reasons, I am really confident I will stay to finish at UT.

Vita

Yacob Tekie was born in Asmara, Eritrea, East Africa. He was born to the parents of Tewelde Tekie and Ugbamariam Tirfe. He completed his Bachelor of Arts in Educational Psychology at the University of Asmara, Eritrea in 2004. After graduating, before he took a position as a Head of Health Promotion and Psychology Unit at Halibet National Referral Hospital, Eritrea, for two years, he worked as Teaching and Research Assistant at the Eritrea Institute of Technology and Teachers College for six years. He accepted a Teaching Assistant position at the University of Tennessee Knoxville, department of Psychology, at the Counseling Psychology Program in 2012, where he is pursuing his PhD with a concurrent masters of arts in Counseling Psychology.