

# Examining the Multivariate Relationship Between Emotional Intelligence and Adjustment to College Among First-Year College Students Using Canonical Correlation Analysis

---

**Joshua Watson**, *Texas A&M University–Corpus Christi*

**Allison Joyal**, *Texas A&M University–Corpus Christi*

**Justen Schroeder**, *Texas A&M University–Corpus Christi*

---

*We examined relationships between scores on the Assessing Emotions Scale and Student Adaptation to College Questionnaire among 474 first-year students at a regional university in the southern United States. Results from the full canonical correlational model indicated that dimensions of emotional intelligence were positively associated with college adjustment experiences, accounting for 22.3% of the variance between the variable sets. Interpretation of the structure coefficients indicated that students' ability to process and effectively use their and others' emotions supports positive academic adjustment experiences, healthy interpersonal relationships, regulated emotional and physical states, lower psychological discomfort, and a generally positive overall college experience.*

*Keywords: college adjustment, emotional intelligence, first-year students, undergraduate students, canonical correlation analysis*

Student persistence, debuting as an institutional success metric in the 1970s, has become one of higher education's most widely researched statistics (Tinto, 2006, 2022; Williams et al., 2018). Over the past 50 years, researchers, operating primarily from the lens of Tinto's (1987) integration model, have examined the troubling inability of higher education institutions to retain their first-time full-time students from a variety of social, psychological, and economic perspectives (Barbera et al., 2020; Keup & Fountain, 2022; Shields, 2023). However, despite concerted efforts by university officials to develop effective retention strategies, annual persistence rates have recently decreased. Following a plateauing of first-to-second-year persistence rates between 2015 and 2019, researchers noted a 2% decrease between 2019 and 2020. Of the 2.3 million individuals enrolled as full- or part-time first-time undergraduate students in the fall of 2020, only 75% opted to continue their educational pursuits at any institution in the fall of 2021 (Gardner, 2022). With college enrollment rates down 26% over the past decade (Hanson, 2025) and preliminary reports suggesting the lingering COVID-19 pandemic is having a historically significant adverse impact on enrollment numbers (Belfield & Brock, 2020), the shrinking pool of potential students is exponentially increasing the pressure that higher education institutions face in retaining their existing students.

Students enrolling in colleges and universities do so with the best intentions to be successful, earn their degrees, and realize their career/vocational goals. However, because these students vary in readiness to begin college (Horrillo et al., 2021; Murillo & Worrell, 2022), their experiences in transitioning to college life can vary greatly. Although most students possess the cognitive ability and psychosocial skills needed to experience a positive transition (González et al., 2012; Kenney et al., 2015), others may feel overwhelmed and stumble in transitioning (Yang & Mao, 2021). From a social justice lens, researchers recognize the impact that relational, cultural, and economic factors have on these transitions to higher education (Stewart et al., 2015), especially among first-generation students (Markle & Dyckhoff Stelzriede, 2020; Murillo & Worrell, 2022), active service members and veterans (Findley & Metz, 2022), and underrepresented minority students (Convertino & Mein, 2020; Molock & Parchem, 2021). With researchers noting positive relationships between effectual transition experiences, academic achievement, and persistence (DeVries et al., 2022), the field may benefit from a greater understanding of how university officials can improve students' transitions. Identifying students who are having difficulty adjusting may be a start.

## College Student Adjustment

The higher education environment exposes students to various new challenges, including academic demands, autonomy toward their needs and activities, and

more independent learning than in their previous educational experiences (Credé & Niehorster, 2012). Although most students successfully adjust to these new challenges and thrive, others struggle with the transition. As such, researchers have identified college adjustment as a salient factor in understanding student persistence. Several theoretical models discuss this factor, but the consensus is that *college adjustment* is a multidimensional construct, encompassing a student's ability to cope with the demands of academic work, navigate the social environment of university life, develop a connection to the academic institution, and foster a sense of well-being (Baker & Siryk, 1999; Ribbe et al., 2016). Although researchers initially conceptualized adjustment as a desirable outcome, they now view it as a continuous response to ever-changing environmental conditions students face in their transition to higher education (Bowman et al., 2019).

According to Baker and Siryk (1999), students who experience a successful college adjustment process often report having more positive college experiences. Therefore, it is not surprising that researchers have identified successful adjustment as a leading factor contributing to greater persistence intentions and decisions (Bowman et al., 2019; Watson & Lenz, 2020). Conversely, students who have trouble adjusting to college are more likely to decide to drop out of school (Zhao et al., 2022). This understanding of the importance of the adjustment experience for both immediate and longer-term student success has led researchers to examine the construct and its relevance to other aspects of the collegiate experience. Previous researchers have examined the impact of several cognitive factors (e.g., academic aptitude and achievement) on college student adjustment, but contemporary explorations have broadened the range of potential predictors of student adjustment that are examined. Specifically, in these more recent studies, researchers (Haktanir et al., 2021; Han et al., 2022; Molnár & Kocsis, 2024) have examined the influence of such noncognitive factors as personality, attitudes, emotions, and social skills. Despite this shifting focus, the contributions of positive social-emotional functioning concerning college adjustment are far less known. Thus, a study examining the influence of emotional intelligence, a key component of social-emotional functioning, may be warranted.

## Emotional Intelligence

The concept of emotional intelligence first appeared in the literature more than 30 years ago in the writings of psychologists Peter Salovey and John Mayer (1990). Adopting an ability-based framework, they conceptualized emotional intelligence as a manifestation of an individual's thoughts and beliefs rather than an expression of their personality. For Mayer and Salovey (1997), these cognitive processes moderate the effectiveness of specific and individual abilities, with some individuals better equipped to perceive, correctly identify, and regulate emotions than others. In

subsequent years, additional researchers (Goleman, 1995; Schutte et al., 1998) posited various definitions and understandings of the emotional intelligence construct. From these earlier works, a consensus has emerged with researchers (Condon et al., 2021; Garg et al., 2016) viewing emotional intelligence as a form of social intelligence that encompasses a dynamic set of skills and abilities that individuals use to recognize, assess, and control their emotions; develop an awareness of others' emotions; and adjust themselves accordingly in varied social contexts.

Furthermore, empirical data supports the notion that emotional intelligence can increase over time (Easton et al., 2008). As such, scholars have developed several measures to quantify emotional intelligence, including the Assessing Emotions Scale (AES; Schutte et al., 2009); the factor structure of AES has led to its popularity among researchers (Kun et al., 2010). Using these measures, researchers have identified emotional intelligence as an explanatory variable for multiple life outcomes (Parker et al., 2011) and a predictor of individual performance and success across numerous settings, including the college environment (Watson & Watson, 2016).

In higher education, researchers have identified emotional intelligence as a salient predictor of several widely used academic outcome measures (Thomas & Allen, 2021). Specifically, they have shown that students with greater levels of emotional intelligence have higher grade point averages (Perera & DiGiacomo, 2013), experience fewer negative academic emotions (Thomas et al., 2017), and are more likely to persist through degree completion (Snowden et al., 2018). Among first-year college students, dimensions of emotional intelligence such as interpersonal abilities and stress management abilities have been associated with increased college retention (Parker et al., 2006) and higher grade point averages (Schutte et al., 1998; Suleman et al., 2019). This research supports a growing consensus among higher education administrators, student affairs personnel, and college counselors that emotional intelligence is vital for students to develop during their collegiate experience (Garcia-Martinez et al., 2022). However, a complete examination of the relationship between college adjustment and emotional intelligence remains absent in the literature. Understanding how emotional intelligence might influence all aspects of a student's adjustment to college may provide additional insights helpful in developing effective retention-focused programming. Therefore, this study aims to measure the linear relationship between the multidimensional constructs of college adjustment and emotional intelligence using widely applied measures for each construct.

## Research Questions and Hypotheses

The primary hypothesis guiding our research for this study was that a statistically significant, positive relationship would exist between the set of four emotional

intelligence variables (AES subscales) and the set of four adjustment to college variables (Student Adaptation to College Questionnaire [SACQ] subscales; Baker & Siryk, 1989). We used this hypothesis to establish two research questions:

1. What proportion of the shared variance between the two variable sets (AES and SACQ subscales) is accounted for by the overall multivariate model?
2. How do the various dimensions of emotional intelligence, as measured by the four AES subscales, compare in explaining overall student adjustment to college, as measured by the four SACQ subscales?

## Methods

### INCLUSION AND EXCLUSION

To participate in this study, we specified that individuals must be at least 18 years of age, enrolled in their first year of postsecondary education, and participating in the university's first-year experience (FYE) course. In addition to students classified as sophomores, juniors, or seniors, we excluded students who were either community college transfers or high school students participating in dual credit programs.

### PARTICIPANT CHARACTERISTICS

Participants were 474 first-year undergraduate students enrolled in a medium-sized, regional university in the southern United States. Overall, the sample consisted of 190 male (40%), 280 female (59.1%), and four nonbinary (0.9%) students. The mean age of participants was 18.67 years ( $SD = 2.37$ ). Two hundred three (42.8%) students self-identified as Hispanic, 176 (37.1%) White/Non-Hispanic, 41 (8.6%) Black or African American, 21 (4.4%) Biracial, 15 (3.2%) Asian American, and eight (1.7%) Native American/Pacific Islander, with 12 students (2.2%) choosing not to report their ethnicity. One hundred eighty-seven (39.5%) students identified as first-generation students, and 90 (19%) were Pell grant recipients. Our review of published institutional data showed that this sample's demographic makeup closely resembled the diversity found on this federally designated Hispanic Serving Institution's (HSI's) campus during the semester we collected our data.

### SAMPLING PROCEDURES

After receiving institutional review board approval, we began recruiting participants from class rosters of randomly selected sections of the university's FYE course. At this institution, all first-year students enroll in the FYE course to support their transition to college and aid campus-wide retention efforts. Each section of FYE is capped at 25 students to allow for meaningful interaction among faculty and students. Using a random number generator, we created a list of 30 FYE sections from which to recruit participants. We contacted the instructors of these sections to request permission

to attend one of their class sessions and present the opportunity to participate in our study to their students. After accounting for the number of students absent on the days we were present to introduce the study and collect data, we provided 712 students the opportunity to participate in the study. From this pool, 509 students chose to participate in the study, representing a 71.5% response rate. After excluding cases with incomplete data, we had a usable sample of 474 participants. These 474 students comprised 13.9% of the total first-year student enrollment ( $N = 3,421$ ) during the semester that data were collected.

### **SAMPLE SIZE, POWER, AND PRECISION**

Before addressing our research questions, we conducted an a priori power analysis to determine whether our sample was robust enough to power the selected statistical design. As there are no software implementations specifically designed for canonical correlation power analyses, we used the G\*Power 3.1 statistical power analysis program (Faul et al., 2014) to estimate our required sample size by running a power analysis for the correlation between the two linear combinations of variables. We used a medium effect size ( $\rho = .30$ ) with a two-tailed alpha of .05 and a .80 power level to determine that a sample of at least 84 participants was required. On the basis of this estimated value, we viewed the pool of 474 first-year students as sufficient for explaining the computed relationships between variables.

### **MEASURES**

***Assessing Emotions Scale.*** The AES (Schutte et al., 2009) is a 33-item self-report instrument designed to assess characteristic or trait emotional intelligence and is based on Salovey and Mayers's (1990) original model of emotional intelligence. Individuals respond to each item, rating their level of agreement using a 5-point Likert-type scale with values ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Users sum the scores on each item to produce a total score with values ranging between 33 and 165. The higher the score, the more indicative it is of characteristic or trait emotional intelligence. Although the scale developers first identified the instrument as unidimensional, subsequent researchers pointed to a four-factor solution accounting for 40.4% of the variance in AES scores and advocated for their use (Petrides & Furnham, 2000). Petrides and Furnham identified these four factors as perceptions of emotion, managing one's emotions, managing others' emotions, and utilizing emotions. We took their recommendation and used the four AES subscale scores as the emotional intelligence variables in the current study.

Assessing the psychometric properties of the proposed four-factor solution among a sample of 482 college students, Al-Qadri et al. (2022) found internal consistency alphas for each of the subscales as follows: .68 for the Perceptions of Emotion

subscale, .71 for Managing Own Emotions, .67 for Managing Others' Emotions, and .75 for Utilization of Emotion. For the current study, subscale alphas ranged between .80 and .82. Furthermore, researchers found convergent validity evidence by correlating the four AES subscale scores with established measures assessing specific aspects thought to be positively related to emotional intelligence, including awareness and expression of emotion, outlook on life, depressed mood, ability to regulate mood, and impulsivity (Schutte et al., 1998).

***Student Adaption to College Questionnaire.*** The SACQ (Baker & Siryk, 1989) is a 67-item self-report instrument designed to assess student adjustment to college. Individuals respond to each item using a 9-point Likert-type scale with values ranging from 1 (*applies very closely to me*) to 9 (*doesn't apply to me at all*). In addition to a total adjustment score, the SACQ provides scores on four subscales: Academic Adjustment, Social Adjustment, Personal-Emotional Adjustment, and Attachment (institutional). Users sum item scores on each subscale to measure the student's level of adjustment for that domain. For each subscale, higher scores are indicative of more adaptive adjustment. As noted in the SACQ test manual, Baker and Siryk (1999) cautioned researchers against using the full-scale score, as the four subscales provide distinctive information about college student adjustment and can provide essential associations. On the basis of this recommendation, we used the four SACQ subscale scores as the adjustment to college variables in the current study.

Baker and Siryk (1999) documented in their test manual findings from multiple studies establishing the psychometric properties of the SACQ. They included internal consistency alphas for the four subscales ranging from .81 to .90 for the Academic Adjustment subscale, from .83 to .91 for the Social Adjustment subscale, from .77 to .86 for the Personal-Emotional Adjustment subscale, and from .85 to .91 for the institutional Attachment subscale. The current study subscale alphas ranged between .72 and .87. Additionally, external validity evidence for the SACQ was provided through moderate associations with student engagement in social activities and self-reported use of on-campus mental health services (Beyers & Goossens, 2002).

## **PROCEDURE**

Research team staff coordinated with FYE course instructors to determine times when they could attend class and collect data. On the selected dates, team members attended classes and introduced students to the research study and the opportunity to participate. Following a brief introduction of the study and a description of the participation process, team members asked interested students to sign a consent form. Then team members provided students with a copy of the survey packet to complete. Instructors allowed students to complete the surveys during their

scheduled class time and return them to a designated collection bin at the end of the period. The team members remained present during the class to address students' questions and collect the completed surveys.

## **DATA ANALYSIS**

After conducting an a priori power analysis and determining our sample size sufficient, we conducted a canonical correlation analysis using IBM SPSS Statistics (Version 28) to explore the relationship between a composite of the four emotional intelligence (AES subscales) predictor variables and a composite of the four adjustment to college (SACQ subscales) criterion variables and to evaluate the shared variance between the two variable sets. We used this analytic approach because it reduced the likelihood of our incurring a Type I error compared with running multiple analyses generating a higher testwise error rate. When interpreting our canonical variates, we decided on a coefficient cutoff score of .30, as suggested by Tabachnick and Fidell (2019). We then used a .05 alpha level for all analyses to determine whether statistical significance was achieved.

## **Results**

First, we computed descriptive statistics for each variable. Table 1 presents the means, standard deviations, and ranges for the four AES and four SACQ subscales. Next, we evaluated data for linearity, homoscedasticity, and multicollinearity to determine whether model assumptions had been met (Tabachnick & Fidell, 2019). We ran our primary analysis after satisfying all model assumptions and detecting no multivariate outliers. Our canonical correlation analysis results yielded four functions with squared canonical correlations ( $R_c^2$ ) of .142, .046, .025, and .001 for each successive function. The full model, across all functions, was statistically significant, Wilks's  $\lambda = .797$ ,  $F(16, 1424.91) = 6.88$ ,  $p < .001$ . On the basis of our computed Wilks's  $\lambda$  value, we found the full model (first canonical root) effect size ( $1 - \lambda$ ) to be .223, indicating that the full model explained approximately 22% of the variance shared between the two variable sets, AES subscales (predictors) and SACQ subscales (criterion).

**Table 1***Descriptive Statistics and Alpha Coefficients for AES and SACQ Subscale Scores*

Variable	<i>M</i>	<i>SD</i>	Range	$\alpha$
AES subscales				
Perceptions of Emotions	36.39	5.83	12–50	.80
Managing Own Emotions	34.58	5.45	17–45	.82
Managing Others' Emotions	29.48	4.71	0–40	.82
Utilization of Emotions	22.58	3.50	0–30	.81
SACQ subscales				
Academic Adjustment	133.91	14.72	29–180	.87
Social Adjustment	100.99	14.30	41–141	.83
Personal-Emotional Adjustment	72.15	15.55	15–111	.72
Attachment (institutional)	70.46	9.61	27–111	.75

*Note.* AES = Assessing Emotions Scale; SACQ = Student Adaptation to College Questionnaire.

Using the dimension reduction analysis, we tested the hierarchical arrangement of functions for the statistical significance of each. In addition to the full model, we found statistical significance for Function 2,  $F(9, 1136.71) = 3.84, p < .001$ , and Function 3,  $F(4, 936) = 3.05, p = .016$ . However, Function 4, the only function tested in isolation, did not explain a statistically significant amount of shared variance between the variable sets,  $F(1, 469) = .09, p = .768$ . Given the  $R_c^2$  effects computed for each function, only the first function was considered noteworthy (the only function with  $p > .05$ ), with a shared variance of 14% equating to a moderate effect (Cohen, 1998). Table 2 presents the correlations and standardized canonical function coefficients for Function 1. Using a correlation threshold of .30 for interpreting structural coefficients (Tabachnick & Fidell, 2019), the relevant criterion variables for Function 1 included scores on managing own emotions (.99), managing others' emotions (.38), and utilization of emotions (.54) subscales of the AES and the Academic Adjustment (.40), Social Adjustment (.47), Personal-Emotional Adjustment (.82), and institutional Attachment (.60) subscales of the SACQ. These results suggest that there appears to be a relationship whereby an individual's ability to successfully manage, regulate, and utilize emotions in self and others to solve problems promotes positive academic adjustment outcomes, facilitates transitions to new social support groups, aids in regulating emotional and physical states resulting in reduced levels of psychological discomfort, and supports a generally positive overall college experience.

**Table 2**

*Correlation and Standardized Canonical Coefficients Between Emotional Intelligence and College Adjustment Variables for the First Canonical Function*

Variable	COR	COE
AES subscales		
Perceptions of Emotions	.19	.49
Managing Own Emotions	<b>.99</b>	.92
Managing Others' Emotions	<b>.38</b>	.50
Utilization of Emotions	<b>.54</b>	.21
SACQ subscales		
Academic Adjustment	<b>.40</b>	.09
Social Adjustment	<b>.47</b>	.21
Personal-Emotional Adjustment	<b>.82</b>	.76
Attachment (institutional)	<b>.60</b>	.53

*Note.* Correlations at or above .30 are in boldface. COE = standardized canonical variate coefficient; COR = correlations to the canonical variate.

## Discussion

This study explored the relationship between emotional intelligence and college student adjustment among first-year undergraduate students. Specifically, we assessed the linear relationship between two sets of multivariate vectors comprising subscale scores from the AES and SACQ measures. Statistical significance was determined using  $p$  values less than .05. Our results indicated a statistically significant relationship between emotional intelligence and college student adjustment. First-year students who exhibited higher levels of emotional intelligence on three of the four AES subscales were likelier to report positive adjustment experiences in the four adjustment domains assessed by the SACQ. These findings seem consistent with previous research demonstrating emotional intelligence's important role in students' overall success in transitioning to college and meeting their personal and professional goals while enrolled (Garcia-Martinez et al., 2022; Watson & Watson, 2016). Thus, it would be wise for personnel to consider ways to bolster incoming students' emotional intelligence to buffer against the adjustment challenges they will likely experience in their first year.

Looking at specific subscale relationships, the significant variables from the AES scale were the subscales of managing own emotions, managing others' emotions, and utilization of emotions. Examples of the managing own emotions variable

would be a person's ability to harness their emotions when getting bad grades on assignments, having conflicts with others when doing a group project, or having roommate disagreements. These situations are common among college students and may be challenging for those students who have never had to deal with this adversity. Therefore, personnel might focus their efforts on helping students learn to keep an even keel and not let a single event spiral out of control and cause them to become overwhelmed with despair.

Examples of managing others' emotions can be seen in the individual whom others come to when they are dealing with hardship and in the individual who can stay calm and collected during an argument. This level of interpersonal steadiness certainly helps assuage any social adjustment challenges that a new student may face. Buoyed by this confidence in their ability to connect with others, these students may develop a greater connection with their peers, leading to a greater connection to the institution. Thus, greater emotional intelligence may allow students to focus more on their overall goals (e.g., social connection, degree completion) than involving themselves in transitory stresses or arguments. If students can meet the adjustment demands set by their college or university, that will increase the likelihood of their identifying their attachment to the institution. This finding is consistent with previous research in higher education settings (Perera & DiGiacomo, 2013; Thomas & Allen, 2021; Thomas et al., 2017).

The variable utilization of emotions looks at the ability to adapt to the cognitive stimulus and regulated motivation to the emotional experience (Izard et al., 2008). An example of this could be when a student fails a significant test. The student could either give up studying or find better ways to study to improve on the next test. In this situation, the ability to separate task performance from overall personal appraisal allows students to take setbacks (e.g., poor grades on an assessment) and use them to identify steps needed to improve in the future.

## **LIMITATIONS**

The results of this study provide greater clarity into the relationship between emotional intelligence and college adjustment. However, interpretation of results should also consider the various limitations that emerged throughout the study. First, students who participated in this study and shared their experiences did so voluntarily, suggesting that they were experiencing a positive adjustment and were willing to discuss it. Second, all data collection tools were self-report questionnaires. When interpreting participants' scores on the AES and SACQ scales, we assumed they provided honest responses to each prompt. Third, although the scales we selected were psychometrically sound and valid for this population, other measures of these constructs exist. Acknowledging that our selected instrumentation may not fully

capture all aspects of the constructs we sought to assess, we recognize that a bias may exist in our interpretations that limits generalizability. Fourth, our study's participants were almost all campus-based students. With the proliferation of universities offering online programs and the growing number of students interested in virtual study, our results may have been different if we had included more students from online programs. Finally, we conducted this study at an HSI-designated institution located in the southern region of the United States. Although a diverse campus, the more significant number of Hispanic students may not represent the nationwide demographic splits noted on other campuses.

### **IMPLICATIONS FOR PRACTICE**

Several scholars (Melese, 2018; Wang et al., 2022; Watson & Watson, 2016) have highlighted the positive influence of high levels of emotional intelligence on such factors as academic achievement, subjective well-being, and psychological distress. On the basis of our findings, we believe that various parties, including faculty, advisors, and student affairs personnel, should be engaged in systemic initiatives designed to improve students' emotional intelligence, thus increasing the likelihood of their having positive college adjustment experiences. Specifically, intentional programming among academic and student support programs that aims to enhance emotional intelligence has the potential to significantly strengthen adjustment success and promote degree persistence among those students identified as at risk for stopping out. To this end, we identify several strategies that can be employed on college and university campuses.

One of the more effective ways to develop emotional intelligence is by promoting self-awareness (Killian, 2012). Students need to be aware of who they are, what they believe, and what is important to them. When they become self-aware, they are better able to understand their emotional responses to situations and work to regulate these responses. Our study found that emotion regulation was a strong predictor of academic, social, personal, and emotional adjustment for our participants. For many first-year college students, their arrival on campus coincides with their transition into adulthood. In addition to searching for autonomy, they are developing their cognitive abilities and beginning to learn who they are (Gonzalez & Graham, 2020). Instructors can facilitate this self-exploration with in-class activities added to the curriculum of the courses often taken in a student's first year. These activities could include journaling, practicing mindfulness, learning gratitude, or engaging in group process sessions. Becoming self-aware is a significant part of developing emotional intelligence (Carden et al., 2022). Fostering this process early in students' collegiate careers not only facilitates their adjustment experiences but also sets them up for future success in later years as well as beyond college.

Another strategy that leads to emotional intelligence is learning to be empathic. Teaching students how to understand and share in others' feelings has been shown to result in the formation of more meaningful relationships. When students feel connected to others in their social environment—in this case, the campus community—their adjustment experiences improve. Learning how to develop empathy is an activity that can be incorporated into classroom settings. Instructors, especially those working in first-year learning programs, can add a lesson on emotional intelligence and focus on empathy-building activities. In these activities, students can participate in role-plays requiring them to demonstrate active listening skills and put themselves in the shoes of others. When students consider the feelings of others and are able to better manage the emotions of others, they are more understanding and accepting of diverse perspectives other than their own. This improved understanding then leads to a more supportive and inclusive campus environment that promotes the successful adjustment of new students. Alternatively, instructors could collaborate with their campus counseling staff to see whether they might be able to provide these training opportunities for their students.

Fostering resilience among first-year students is another activity that can help develop emotional intelligence. Integrating into a new environment poses many challenges. For the first-year college student, these challenges include adjusting to new academic demands; forging new social relationships; differentiating from friends and family back home; and, in some cases, assuming a greater responsibility for making personal decisions. Any one of these challenges can be experienced negatively by a student and result in psychological distress. Some students may not have experienced such significant challenges before, so their experiences as college students are resulting in a state of cognitive dissonance. In such cases, helping these students become more resilient is a form of emotional intelligence development that may be helpful. Scholars (Holdsworth et al., 2018; Mueller, 2021) have identified the positive impact adding resiliency-building content to the curriculum of first-year learning programs both as a support for current transitional challenges and as future, career-oriented transitions. This content could focus on helping students develop healthy habits associated with resilience. Resilience training often aims to improve individuals' competence, confidence in their abilities, and ability to connect to others. Through these training activities, students become more adept at controlling what they can and coping with those elements they cannot change.

We also suggest the addition of opportunities for students to enhance their self-expression as an effective campus activity that promotes emotional intelligence development. On the college campus, students encounter others with diverse worldviews and beliefs. Although students may have the desire to express themselves in an ideal and authentic manner, they may need to learn how to do so. Despite the

positive aspects of authentic self-expression (Bailey et al., 2020), students may be hesitant to express their true selves for fear that it may make them look bad in the eyes of others or cause them to be ostracized. College counselors and/or student affairs personnel could help create a climate that fosters self-expression by institutionalizing safe spaces and opportunities. Additionally, they could sponsor workshops that promote effective communication strategies and active listening so they are better equipped to hold conversations with others who may espouse opposing viewpoints. Finally, in addition to these more formal activities, students can be encouraged to engage in self-help activities as needed. Self-help activities are another approach that provides college students with opportunities to improve their emotional intelligence and increase positive college adjustment experiences. Adaptive coping skills, physical activity, and practicing mindfulness are some self-help activities that colleges and universities can encourage their students to explore (Moeller et al., 2020). Although these self-paced resources exist—often online—many students remain unaware of them and their benefits. Thus, faculty, counselors, and student affairs personnel should target enhancing students' digital literacy levels so they are more knowledgeable of the resources available and develop more positive attitudes toward them (Özer et al., 2024). In addition, they can promote effective programs and offer resources to help students foster the development of emotional intelligence and improve their perceptions of institutional attachment.

## **SUGGESTIONS FOR FUTURE RESEARCH**

To advance our findings, we suggest that future researchers examine student populations differing from the student population participating in our study. Because our student participants were recruited from an HSI institution, future researchers should investigate whether similar results can be obtained from Predominantly White Institutions or other minority-serving schools such as Predominantly Black Institutions, Historically Black Colleges and Universities, and Native American-Serving Nontribal Institutions. Studies involving students attending these types of colleges and universities may help identify any potential confounding effects for race, ethnicity, or cultural background. Additionally, it would be helpful to understand whether the adjustment experiences of students of color vary based on their attendance at either a Predominantly White Institution or a minority-serving institution.

Addressing differences in student adjustment experiences at colleges and universities of varying size and complexity may highlight challenges in addition to the demographic composition of the student body. Along with researchers identifying emotional intelligence as a mental health protective factor for college students (Tang & He, 2023), our study found that it also buffers adjustment experiences and allows students to acclimate to their new collegiate environment more successfully. However, we do not know if the emotion regulation skills of emotionally intelligent individuals

are needed more at larger colleges and universities that house tens of thousands of students, sometimes even across multiple campuses. On these larger campuses, first-year students may have greater difficulty finding their place, accessing available support, developing new friendships, and feeling connected.

We selected the measures (AES and SACQ) used to assess the emotional intelligence and student adjustment constructs examined in our study on the basis of their psychometric properties and documented utility across several studies. However, other measures assessing these constructs have been developed and may prove equally beneficial. These alternate measures explore the constructs of emotional intelligence and college adjustment from varied theoretical perspectives and have diverse factor structures. To determine whether the statistically significant relationships we found between emotional intelligence and student adjustment is more than an artifact of the measures used to assess our constructs, another area for future research would include researchers using different measures of these constructs to find if there is a genuine connection between emotional intelligence and college adjustment.

Although our study was a quantitative inquiry, future researchers may find value in exploring the influence of emotional intelligence on college adjustment through a qualitative lens. Documenting the lived experiences of first-year students and their adjustment experiences may provide us with a deeper context and understanding of how students use their emotional intelligence to support positive adjustment. Identifying these exact mechanisms and understanding the nuances behind the quantitative data presented in studies such as ours allows faculty, counselors, and student affairs personnel to develop more targeted interventions to support the development of emotional intelligence in their new students to foster adjustment and future success. Thus, adding qualitative data to the knowledge base would provide scholars and practitioners with a more holistic perspective on these constructs.

## Conclusion

Exploring the relationship between emotional intelligence and college student adjustment among first-year undergraduate students found that elements of emotional intelligence were statistically significant predictors in college student adjustment. Overall, we can conclude that the AES and SACQ subscales findings predicted college student adjustment from the student's ability to understand their emotional intelligence. The findings suggest that if the emotional intelligence of college students increases, their college adjustment will likely be a more positive experience. The outcomes of this study can inform colleges and their student affairs personnel on how to better support first-year undergraduate students as they

acclimate to the college setting. For example, recognizing the predictive ability of emotional intelligence, student affairs staff members can design programs, workshops, and activities aimed at enhancing emotional intelligence. As students become more self-aware, they are better equipped to manage emotions, handle adversity, and build strong interpersonal relationships. Using the skills they learn in these on-campus activities, students are more likely to report positive adjustment experiences. Our findings can also be used to inform and influence stakeholders involved in the decision-making processes that affect college student experiences. Intentional approaches to foster a campus culture that promotes emotional intelligence in both curriculum and institutional policies create an environment that allows students to prosper and succeed in their academic pursuits.

## References

- Al-Qadri, A. H., Zhao, W., Li, M., Al-khresheh, M., & Boudouaia, A. (2022). Emotional intelligence scale for international students: A proposal for a developed version. *Frontiers in Education, 7*, Article 853303. <https://doi.org/10.3389/educ.2022.853303>
- Bailey, E. R., Matz, S. C., Youyou, W., & Iyengar, S. S. (2020). Authentic self-expression on social media is associated with greater well-being. *Nature Communications, 11*, Article 4889. <https://doi.org/10.1038/s41467-020-18539-w>
- Baker, R., & Siryk, B. (1989). *Student Adaptation to College Questionnaire (SACQ)*. Western Psychological Services.
- Baker, R., & Siryk, B. (1999). *SACQ: Student adaptation to college questionnaire manual*. Western Psychological Services.
- Barbera, S. A., Berkshire, S. D., Boronat, C. B., & Kennedy, M. H. (2020). Review of undergraduate student retention and graduation since 2010: Patterns, predictions, and recommendations for 2020. *Journal of College Student Retention: Research, Theory, & Practice, 22*(2), 227–250. <https://doi.org/10.1177/1521025117738233>
- Belfield, C., & Brock, T. (2020). *Behind the enrollment numbers: How COVID has changed students' plans for community college*. Community College Research Center.
- Beyers, W., & Goossens, L. (2002). Concurrent and predictive validity of the Student Adaptation to College Questionnaire in a sample of European freshmen students. *Educational and Psychological Measurement, 62*(3), 527–538. <https://doi.org/10.1177/00164402062003009>
- Bowman, N. A., Jarratt, L., Jang, N., & Bono, T. J. (2019). The unfolding of student adjustment during the first semester of college. *Research in Higher Education, 60*, 273–292. <https://doi.org/10.1007/s11162-018-9535-x>
- Carden, J., Jones, R. J., & Passmore, J. (2022). Defining self-awareness in the context of adult development: A systematic literature review. *Journal of Management Education, 46*(1), 140–177. <https://doi.org/10.1177/1052562921990065>

- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Condon, S. E., Parmelee, P. A., & Smith, D. M. (2021). Examining emotional intelligence in older adults with chronic pain: A factor analysis approach. *Aging & Mental Health, 25*(2), 213–218. <https://doi.org/10.1080/13607863.2019.1673308>
- Convertino, C., & Mein, E. (2020). Latinx students' transition to college: When readiness meets barriers. *Journal of Latinos and Education, 19*(3), 313–321. <https://doi.org/10.1080/15348431.2018.1521724>
- Credé, M., & Niehorster, S. (2012). Adjustment to college as measured by the Student Adaptation to College Questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review, 24*, 133–165. <https://doi.org/10.1007/s10648-011-9184-5>
- DeVries, K., Santo, J., & Casas, J. (2022). Diverse college students' cultural background and college persistence. *The Journal of College Orientation, Transition, and Retention, 29*(2), 1–12. <https://pubs.lib.umn.edu/index.php/jcotr/article/view/4655/3281>
- Easton, C., Martin, W. E., Jr., & Wilson, S. (2008). Emotional intelligence and implications for counseling self-efficacy: Phase II. *Counselor Education and Supervision, 47*, 218–232. <https://doi.org/10.1002/j.1556-6978.2008.tb00053.x>
- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2014). *G\*Power* (Version 3.1.8) [Computer software]. Heinrich-Heine-University Düsseldorf. <http://www.gpower.hhu.de>
- Findley, S. P., & Metz, J. (2022). Contributing factors to academic success among student veterans. *Developments, 19*(1). <https://developments.myacpa.org/contributing-factors-to-academic-success-among-student-veterans-findley-metz-2/>
- Garcia-Martinez, I., Augusto-Landa, J. M., Quijano-López, R., & León, S. P. (2022). Self-concept as a mediator of the relationship between university students' resilience and academic achievement. *Frontiers in Psychology, 12*, Article 747168. <https://doi.org/10.3389/fpsyg.2021.747168>
- Gardner, A. (2022, June). *Persistence and retention: Fall 2020 beginning postsecondary student cohort*. National Student Clearinghouse Research Center. <https://nscresearchcenter.org/wp-content/uploads/PersistenceRetention2022.pdf>
- Garg, R., Levin, E., & Tremblay, L. (2016). Emotional intelligence: Impact on postsecondary academic achievement. *Social Psychology of Education: An International Journal, 19*(3), 627–642. <https://doi.org/10.1007/s11218-016-9338-x>
- Goleman, D. (1995). *Emotional intelligence*. Bantam Books.
- Gonzalez, L. M., & Graham, C. C. (2020). Social constructivism and identity in student development. In D. A. Paladino, L. M. Gonzalez, & J. C. Watson (Eds.), *College counseling and student development* (pp. 261–278). American Counseling Association.

- González, M. S. R., Vacas, C. T., Couñago, M. A. G., & Fernández, M. F. P. (2012). The student adaptation to college questionnaire (SACQ) for use with Spanish students. *Psychological Reports: Measures & Statistics*, *111*(2), 624–640. <https://doi.org/10.2466/08.10.20.PR0.111.5.624-640>
- Haktanir, A., Watson, J. C., Ermis-Demirtas, H., Karaman, M. A., Freeman, P. D., Kumaran, A., & Streeter, A. (2021). Resilience, academic self-concept, and college adjustment among first-year students. *Journal of College Student Retention: Research, Theory, & Practice*, *23*(1), 161–178. <https://doi.org/10.1177/1521025118810666>
- Han, C., Farruggia, S. P., & Solomon, B. J. (2022). Effects of high school students' noncognitive factors on their success at college. *Studies in Higher Education*, *47*(3), 572–586. <https://doi.org/10.1080/03075079.2020.1770715>
- Hanson, M. (2025). *College enrollment & student demographic statistics*. Education Data Initiative. <https://educationdata.org/college-enrollment-statistics/>
- Holdsworth, S., Turner, M., & Scott-Young, C. M. (2018). Not drowning, waving. Resilience and university: A student perspective. *Studies in Higher Education*, *43*(11), 1837–1853. <https://doi.org/10.1080/03075079.2017.1284193>
- Horrillo, S. J., Smith, M. H., Wilkins, T. R., Diaz Carrasco, C. P., Caeton, N. W., McIntyre, D., & Schmitt-McQuitty, L. (2021). A positive youth development approach to college and career readiness. *Journal of Youth Development*, *16*(1), 74–99. <https://doi.org/10.5195/jyd.2021.966>
- Izard, C., Stark, K., Trentacosta, C., & Schultz, D. (2008). Beyond emotion regulation: Emotion utilization and adaptive functioning. *Child Development Perspectives*, *2*(3), 156–163. <https://doi.org/10.1111/j.1750-8606.2008.00058.x>
- Kenney, S. R., Lac, A., Hummer, J. F., Grimaldi, E. M., & LaBrie, J. W. (2015). Pathways of parenting style on adolescents' college adjustment, academic achievement, and alcohol risk. *Journal of College Student Retention: Research, Theory & Practice*, *17*(2), 186–203. <https://doi.org/10.1177/1521025115578232>
- Keup, J. R., & Fountain, C. (2022). Sense of belonging as process and product in the first-year experience. In E. M. Bentrin & G. W. Henning (Eds.), *The impact of a sense of belonging in college: Implications for student persistence, retention, and success* (pp. 160–168). Taylor & Francis.
- Killian, K. D. (2012). Development and validation of the Emotional Self-Awareness Questionnaire: A measure of emotional intelligence. *Journal of Marital and Family Therapy*, *38*(3), 502–514. <https://doi.org/10.1111/j.1752-0606.2011.00233.x>
- Kun, B., Balazs, H., Kapitany, M., Urban, R., & Demetrovics, Z. (2010). Confirmation of the three-factor model of the Assessing Emotions Scale (AES): Verification of the theoretical starting point. *Behavior Research Methods*, *42*, 596–606. <https://doi.org/10.3758/BRM.42.2.596>

- Markle, G., & Dyckhoff Stelzriede, D. (2020). Comparing first-generation students to continuing-generation students and the impact of a first-generation learning community. *Innovative Higher Education, 45*, 285–298. <https://doi.org/10.1007/s10755-020-09502-0>
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–34). Basic Books.
- Melese, A. (2018). First-year college students' emotional intelligence and help-seeking behaviors as correlates of their academic achievement. *Journal of Student Affairs in Africa, 6*(2), 29–50. <https://doi.org/10.24085/jsaa.v6i2.2515>
- Moeller, R. W., Seehuus, M., Simonds, J., Lorton, E., Randle, T. S., Richter, C., & Peisch, V. (2020). The differing role of coping, physical activity, and mindfulness in college student adjustment. *Frontiers in Psychology, 11*. <https://doi.org/10.3389/fpsyg.2020.01858>
- Molnár, G., & Kocsis, A. (2024). Cognitive and non-cognitive predictors of academic success in higher education: A large scale longitudinal study. *Studies in Higher Education, 49*(9), 1610–1624. <https://doi.org/10.1080/03075079.2023.2271513>
- Molock, S. D., & Parchem, B. (2021). The impact of COVID-19 on college students from communities of color. *Journal of American College Health, 70*(8), 2399–2405. <https://doi.org/10.1080/07448481.2020.1865380>
- Mueller, T. (2021). Development and testing of a university student resilience scale. *Journal of American College Health, 71*(3), 1–11. <https://doi.org/10.1080/07448481.2021.1909050>
- Murillo, M. A., & Worrell, F. C. (2022). College week: Preparing first-generation students for the transition to postsecondary education. *Journal of College Orientation, Transition, and Retention, 29*(1). <https://pubs.lib.umn.edu/index.php/jcotr/article/view/4870>
- Özer, Ö., Köksal, B., & Altinok, A. (2024). Understanding university students' attitudes and preferences for internet-based mental health interventions. *Internet Interventions, 35*, Article 100722. <https://doi.org/10.1016/j.invent.2024.100722>
- Parker, J. D. A., Hogan, M. J., Eastabrook J. M., Oke, A., & Wood, L. M. (2006). Emotional intelligence and student retention: predicting the successful transition from high school to university. *Personality and Individual Differences, 41*(7), 1329–1336. <https://doi.org/10.1016/j.paid.2006.04.022>
- Parker, J. D. A., Keefer, K. V., & Wood, L. M. (2011). Toward a brief multidimensional assessment of emotional intelligence: Psychometric properties of the Emotional Quotient Inventory–Short Form. *Psychological Assessment, 23*(3), 762–777. <https://doi.org/10.1037/a0023289>
- Perera, H. N., & DiGiacomo, M. (2013). The relationship of trait emotional intelligence with academic performance: A meta-analytic review. *Learning and Individual Differences, 28*, 20–33. <https://doi.org/10.1016/j.lindif.2013.08.002>

- Petrides, K. V., & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences, 29*(2), 313–320. [https://doi.org/10.1016/S0191-8869\(99\)00195-6](https://doi.org/10.1016/S0191-8869(99)00195-6)
- Ribbe, R., Cyrus, R., & Langan, E. (2016). Exploring the impact of an outdoor orientation program on adaptation to college. *Journal of Experiential Education, 39*(4), 355–369. <https://doi.org/10.1177/1053825916668900>
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185–211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences, 25*, 167–177. [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4)
- Schutte, N. S., Malouff, J. M., & Bhullar, N. (2009). The Assessing Emotions Scale. In C. Stough, D. Saklofske, & J. Parker (Eds.), *The assessment of emotional intelligence* (pp. 119–135). Springer.
- Shields, D. (2023). Predicting academic difficulty among first-semester college students. *Journal of College Orientation, Transition, and Retention, 30*(1). <https://doi.org/10.24926/jcotr.v30i1.4804>
- Snowden, A., Stenhouse, R., Duers, L., Marshall, S., Carver, F., Brown, N., & Young, J. (2018). The relationship between emotional intelligence, previous caring experience, and successful completion of a pre-registration nursing/midwifery degree. *Journal of Advanced Nursing, 74*(2), 433–442. <https://doi.org/10.1111/jan.2018.74.issue-2>
- Stewart, S., Lim, D. H., & Kim, J. (2015). Factors influencing college persistence for first-time students. *Journal of Developmental Education, 38*(3), 12–20.
- Suleman, Q., Hussain, I., Syed, M. A., Parveen, R., Lodhi, I. S., & Mahmood, Z. (2019). Association between emotional intelligence and academic success among undergraduates: A cross-sectional study in KUST, Pakistan. *PLOS ONE, 14*(7), Article e0219468. <https://doi.org/10.1371/journal.pone.0219468>
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Tang, Y., & He, W. (2023). Relationship between emotional intelligence and learning motivation among college students during the COVID-19 pandemic: A serial mediation model. *Frontiers in Psychology, 14*, Article 1109569. <https://doi.org/10.3389/fpsyg.2023.1109569>
- Thomas, C. L., & Allen, K. (2021). Driving engagement: Investigating the influence of emotional intelligence and academic buoyancy on student engagement. *Journal of Further and Higher Education, 45*(1), 107–119. <https://doi.org/10.1080/0309877X.2020.1741520>

- Thomas, C. L., Cassady, J. C., & Heller, M. L. (2017). The influence of emotional intelligence, cognitive test anxiety, and coping strategies on undergraduate academic performance. *Learning and Individual Differences, 55*, 40–48. <https://doi.org/10.1016/j.lindif.2017.03.001>
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago.
- Tinto, V. (2006). Research and practice of student retention: What next? *Journal of College Student Retention: Research, Theory, & Practice, 8*(1). <https://doi.org/10.2190/4YNU-4TMB-22DF-AN4W>
- Tinto, V. (2022). Exploring the character of student persistence in higher education: The impact of perception, motivation, and engagement. In A. L. Reschly & S. L. Christenson (Eds.), *Handbook of research on student engagement* (2nd ed, pp. 357–379). Springer.
- Wang, K., Li, Y., Zhang, T., & Luo J. (2022). The relationship among college students' physical exercise, self-efficacy, emotional intelligence, and subjective well-being. *International Journal of Environmental Research and Public Health, 19*(18), Article 11596. <https://doi.org/10.3390/ijerph191811596>
- Watson, J. C., & Lenz, A. S. (2020). Development and evaluation of the Inventory of New College Student Adjustment. *Journal of College Student Retention: Research, Theory & Practice, 22*(3), 425–440. <https://doi.org/10.1177/1521025118759755>
- Watson, J. C., & Watson, A. A. (2016). Coping self-efficacy and academic stress among Hispanic first-year college students: The moderating role of emotional intelligence. *Journal of College Counseling, 19*(3), 218–230. <https://doi.org/10.1002/jocc.12045>
- Williams, R., Smiley, E., Davis, R., & Lamb, T. (2018). The predictability of cognitive and non-cognitive factors on the retention rate among freshmen college students. *The Journal of Negro Education, 87*(3), 326–337. <https://doi.org/10.7709/jnegroeducation.87.3.0326>
- Yang, F., & Mao, Y. (2021). Which factors impact Pell grant students' persistence and graduation? *Journal of Higher Education Theory and Practice, 21*(3), 111–122. <https://doi.org/10.33423/jhetp.v21i3.4148>
- Zhao, Y., Ding, Y., Chekired, H., & Wu, Y. (2022). Student adaptation to college and coping in relation to adjustment during COVID-19: A machine learning approach. *PLOS ONE, 17*(12), Article e0279711. <https://doi.org/10.1371/journal.pone.0279711>