

Contemporary College Student Anxiety: The Role of Academic Distress, Financial Stress, and Support

Payton J. Jones, So Yeon Park, and G. Tyler Lefevor

Mental health concerns, especially anxiety, are increasingly prevalent among college students. The authors analyzed data from the Center for Collegiate Mental Health 2013–2014 database to provide insight about student anxiety as reported by students and their counselors. Analyses showed that academic distress accounted for the largest amount of variance in anxiety, followed by financial stress, family support, and peer support. Sociodemographic variables had small effects, indicating a universality of anxiety across various types of students.

Keywords: anxiety, collegiate mental health, counseling, academic distress, financial stress

Anxiety is the most common mental health concern in college students (Center for Collegiate Mental Health [CCMH], 2017) and is becoming increasingly more prevalent (Kitzrow, 2003). In 2013, an unprecedented 12.4% of college students were diagnosed or received treatment for an anxiety disorder (Samuolis, Barcellos, LaFlam, Belson, & Berard, 2015). Anxiety-related concerns without a diagnosis or treatment are even more common: A large portion of college students reported feeling overwhelmed (84.3%), feeling exhausted (79.1%), feeling hopeless (46.5%), or having experienced overwhelming anxiety (51.3%) while in school (Samuolis et al., 2015). This is particularly problematic because anxiety is related to attrition (Eisenberg, Golberstein, & Hunt, 2009), lower academic performance in general (Kitzrow, 2003), less job satisfaction (Faragher, Cass, & Cooper, 2005), and job burnout (Maslach, Schaufeli, & Leiter, 2001).

College counseling centers have been organized or expanded in many institutions to address increasing mental health problems among college students. However, many counseling centers continue to face increased demand for services (CCMH, 2017) without respective increases in staff. Given such a trend, it is becoming more critical to understand the nature and causes of collegiate anxiety so that effective prevention and treatment can be carried out. Although research has been conducted on collegiate anxiety, there has yet to be a study of collegiate anxiety that uses a national sample, and an updated, national sample would be helpful to understand current trends. Furthermore, existing literature fails to explicitly address the degree to which unique factors account for anxiety in college students. Understanding the unique factors implicated in college student anxiety can help practitioners narrow the focus of treatment in students and develop appropriate interventions to be implemented through college counseling centers.

To provide an updated understanding of college student anxiety and explore possible factors that influence the experience of anxiety, we analyzed data from

Payton J. Jones and So Yeon Park, Department of Psychology, and G. Tyler Lefevor, Counseling and Psychological Services, Brigham Young University. Payton J. Jones is now at Department of Psychology, Harvard University. G. Tyler Lefevor is now at Department of Psychology, Rhodes College. Correspondence concerning this article should be addressed to G. Tyler Lefevor, Department of Psychology, Rhodes College, 2000 North Parkway, Memphis, TN 38120 (email: lefevort@rhodes.edu).

© 2018 by the American Counseling Association. All rights reserved.

the CCMH 2013–2014 database. After a review of the literature on college student anxiety, we theorized that academic distress (Beiter et al., 2015), financial stress (Roberts et al., 2000), and peer and family support (Hunt & Eisenberg, 2010) would be significantly related to anxiety.

The Link Between Academic Distress and Anxiety

When asked to list their major concerns, college students ($N = 374$) indicated academic performance, pressure to succeed, and postgraduation plans as their top concerns (Beiter et al., 2015). With more students entering college and competing for a limited number of jobs (Uno, Mortimer, Kim, & Vuolo, 2010), many college students feel more pressure to set themselves apart from their peers by excelling academically. Consequently, it is not surprising that many college students report anxiety (Bishop, Bauer, & Becker, 1998) and hold a negative view toward academics (Felsten & Wilcox, 1992).

The relationship between academic distress and anxiety is bidirectional. Some degree of anxiety can be helpful for high academic achievement (Spielberger, 1966). However, too much anxiety may hinder academic performance, a mechanism most probably mediated through decreased capacity in central executive processes (Owens, Stevenson, Hadwin, & Norgate, 2012). Anxiety is also related to student attrition (Eisenberg et al., 2009) and failure in school (Ashcraft & Kirk, 2001), which can lead to even more anxiety and, in turn, further decreases in grade point average (Stallman, 2010).

The Link Between Financial Stress and Anxiety

Financial stress is also a major contributor that both directly and indirectly affects student anxiety. For one, financial stress is associated with decreases in both mental and physical health, as well as increases in anxiety (Archuleta, Dale, & Spann, 2013; Hodgson & Simoni, 1995; Roberts, Golding, & Towell, 1998). A recent survey found that up to 80% of students report shouldering the cost for some or all of their tuition (Citi, 2013). Of entering college freshmen, 65.3% reported having either some concern or major concerns about being unable to complete their degree because of financial reasons (Higher Education Research Institute [HERI], 2002). Consequently, students work longer hours (Roberts et al., 1998), leaving less time for academic work, thereby leading to decreased academic performance (Joo, Durband, & Grable, 2008), which in turn is related to increased levels of anxiety (Misra & McKean, 2000). A lack of financial resources can also indirectly lead to increased stress through poor nutrition, housing, and insurance.

Research suggests that students are poorer and under more financial pressure than ever, with poverty becoming an entrenched norm in higher education within the past few decades (Roberts et al., 1998). Between 1980 and 2010, tuition costs have gone up a staggering \$5,486 per semester for in-state, full-time undergraduates and from \$9,535 to \$27,293 per semester at private colleges and universities (Taylor et al., 2011). It is not surprising that some scholars have noted

parallels between the increasing cost of education over the past 2 decades and an increase in student mental health concerns (Kitzrow, 2003). This trend makes a contemporary examination of the importance of the effect of financial variables on college student mental health both necessary and timely.

The Link Between Social Support and Anxiety

During a developmental period of marked uncertainties such as emerging adulthood, social support appears to mitigate the negative effects of distressing events (Cohen & Wills, 1985). It is well established that social support has an inverse relationship with anxiety (Mahmoud, Staten, Lennie, & Hall, 2015); thus, college students who feel more supported are likely to adjust to college more favorably (Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005; Malecki, & Demaray, 2003). To more fully understand how social support buffers anxiety as well as academic distress and financial stress, we examined familial and peer support.

Students rely on family for emotional support (Budescu & Silverman, 2016). Research has demonstrated that family support offers emotional adjustment (Larose & Boivin, 1998), which in turn leads to greater academic dedication and efficacy (Budescu & Silverman, 2016) as well as reduced test anxiety (Song, Bong, Lee & Kim, 2015). Although emerging adulthood is characterized by increased autonomy (Goldscheider & Davanzo, 1986), maintaining strong ties to one's family is important for adjustment to college (Wintre & Yaffe, 2000). In fact, individuals who remain emotionally close to their families find it easier to adjust to a new social environment and display increased help-seeking behavior (Holt, 2014).

Given that many college students live away from home, they often rely on other students for support (Thompson, 2008). Peers who understand the pressure of higher education may be more equipped to provide empathy relating to academics and financial stressors (Larose & Boivin, 1998). For example, students in Thompson and Mazer's (2009) study indicated that peers were often more successful than instructors at explaining or clarifying class content and that venting to peers was the most useful form of academic support that they received.

Research Questions

When considered together, academic distress, financial stress, peer support, and family support likely all contribute to the manifestation of anxiety in college students. In this study, we sought to gain a clearer insight into the role of each of these factors. The following research questions guided our study: (a) How much do each of these factors (academic distress, financial stress, peer support, and family support) affect anxiety? and (b) How much of the variance in college student anxiety can be attributed to the combination of these factors? Understanding these relationships has practical clinical implications for how college counseling centers and counselors may help clients address the anxiety they experience.

Method

Participants

Data for this study were drawn from the CCMH 2013–2014 data set, which is composed of 101,027 unique clients at 140 college counseling centers in the United States, Canada, and the United Kingdom. All of the centers that contributed data to the CCMH received institutional review board (IRB) approval from their respective boards before contributing data to the study. IRB approval for the use of archival data was also obtained from the third author's board for the present study.

Participants were included in the present study if they provided basic demographic information through the Standardized Data Set (SDS; CCMH, 2017) and valid mental health outcome data through the 34-item (Locke et al., 2011) or 62-item (Locke et al., 2012) version of the Counseling Center Assessment of Psychological Symptoms (CCAPS). Not all of the participating institutions administered all of the questions on the SDS. Participants who lacked a response for a specific SDS question were excluded from the analysis on a question-by-question basis, rather than being excluded from the entire study.

A total of 80,509 participants met the inclusion criteria. Of these, 49,706 (61.7%) were women and 29,330 (36.4%) were men. An additional 0.3% ($n = 235$) identified as transgender, 0.5% ($n = 437$) self-identified, and 1.0% were missing data ($n = 809$). (Percentages do not total 100 because of rounding.) The mean age of the participants was 22.3 years ($SD = 5.0$). In terms of race/ethnicity, 65.6% of the participants identified as White, 8.4% as African American or Black, 7.0% as Hispanic or Latina/o, 6.2% as Asian American or Asian, 4.3% as multiracial, 0.4% as American Indian or Alaskan Native, and 0.2% as Native Hawaiian or Pacific Islander. In addition, 1.6% of the participants indicated being of another race or ethnicity, and 6.3% did not respond to this question.

Measures

SDS. The SDS (CCMH, 2017) is a set of questions typically administered upon intake in participating college counseling centers. The following questions measure gender, race/ethnicity, sexual orientation, housing, class standing, and enrollment status: (a) “What is your gender identity?” (b) “What is your race/ethnicity?” (c) “Do you consider yourself to be heterosexual, lesbian, gay, bisexual, questioning, or self-identify (please specify)?” (d) “What kind of housing do you currently have?” (e) “Current academic status: freshman/first-year, sophomore, junior, senior, graduate/professional degree student, or other?” (f) “Are you an international student?” (g) “Are you the first generation in your family to attend college?” and (h) “Did you transfer from another campus/institution to this school?” The SDS includes single-item self-report measures of both peer support (“Please indicate how much you agree with this statement: ‘I get the emotional help and support I need from my social network [e.g., friends and acquaintances]’”) and family support (“Please indicate how much you agree with this statement: ‘I get the emotional help and support I

need from my family”). Responses are scored on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The SDS assesses financial stress with the question “How would you describe your financial situation right now?” Responses are scored on a 5-point Likert-type scale ranging from 1 (*always stressful*) to 5 (*never stressful*). We reverse coded responses for financial stress for the analyses to accurately reflect the construct, with higher scores representing more financial stress.

Clinician Index of Client Concerns (CLICC). The CLICC (CCMH, 2017), unlike the other questionnaires included in the SDS, is completed by the counselor, thus adding a useful comparison against self-report anxiety data. The CLICC consists of 43 check-box items, which ask the counselor the following: (a) “Please indicate your assessment of the client’s primary concerns (check those that apply)” and (b) “Choose the top concern of those already selected.” Examples of primary concerns include anxiety, depression, stress, family, interpersonal functioning, self-esteem/confidence, and sleep. Because of the recency of the addition of the CLICC and its nonmandatory use in many centers, the sample available for analysis with the CLICC was greatly reduced. After we screened for valid SDS, CCAPS, and CLICC data, only 564 participants remained. Because of this relatively small sample, we used all 80,509 participants for analyses that did not directly involve the CLICC data set. Demographically, this reduced sample was similar to the larger sample. The mean age of the participants (61.3% women, 37.8% men) in the reduced sample was 22.3 years ($SD = 5.4$), with 63.7% identifying as White, 17.7% as African American or Black, 5.7% as Hispanic or Latina/o, 4.4% as multiracial, 4.1% as Asian American or Asian, and 3.7% as other. The remaining 0.7% of the participants were missing data.

CCAPS-62 and CCAPS-34. The CCAPS-62 (Locke et al., 2012) and its shortened version, the CCAPS-34 (Locke et al., 2011), are multidimensional assessments of psychological symptoms frequently used in college populations. Because not all of the participants completed the CCAPS-62, we converted any CCAPS-62 data into CCAPS-34 data such that all mental health outcome data could be analyzed together. The CCAPS-34 consists of seven subscales (Depression, Generalized Anxiety, Social Anxiety, Academic Distress, Eating Concerns, Hostility, and Alcohol Use) that compose a general Distress Index. We measured participants’ anxiety levels using the CCAPS-34 Generalized Anxiety subscale and participants’ academic distress using the CCAPS-34 Academic Distress subscale. In the current study, both the Generalized Anxiety ($\alpha = .83$) and Academic Distress ($\alpha = .82$) subscales of the CCAPS-34 demonstrated good internal consistency.

Data Analysis

Data were analyzed in three sets of analyses. First, we assessed the relationship between the demographic variables and anxiety. Anxiety was measured through both the percentage of clients whose counselor reported anxiety as a top concern and the mean score on the CCAPS-34 Generalized Anxiety subscale. We performed one-way analyses of variance (ANOVAs) of mean anxiety level for each demographic group to

assess the significance of relationships with the level of student anxiety. Second, we analyzed key variables (anxiety, academic distress, financial stress, peer support, and family support) using bivariate and semipartial correlations. Finally, we conducted a regression analysis to examine how well each of the key variables, as well as each of their interactions, predicted variance in anxiety. The data met accepted standards for normality and homogeneity of variance.

Results

Sociodemographic Characteristics

Table 1 presents general sociodemographic characteristics, with comparisons made for the presence of anxiety and the mean level of anxiety for each sociodemographic subgroup.

All ANOVA comparisons between sociodemographic groups were significant at the $p < .01$ level. Given the large sample size, this finding is not surprising. Because of the high level of significance, it was more meaningful to examine the effect sizes of comparisons (η^2). Unsurprisingly, the largest effect observed was for gender ($\eta^2 = .016$), with men experiencing the lowest levels of anxiety.

Among the sexual identity variables, heterosexuals displayed the lowest levels of anxiety, followed by lesbians and gay men, with bisexual, questioning, and self-identified individuals displaying the highest anxiety levels ($\eta^2 = .009$). Overall, the effect size for differences between racial/ethnic groups was very small ($\eta^2 = .004$). The ANOVAs of the remaining variables (housing, year in school, first-generation student, transfer student, and international student) all resulted in relatively small effect sizes between groups.

Correlation Analyses

To analyze the key mental health variables in this study, we first constructed a correlation matrix including bivariate and semipartial correlations to better understand the relationships between the variables (see Table 2). Anxiety was most strongly related to academic distress ($r = .45$), followed by financial stress ($r = .20$), family support ($r = -.17$), and peer support ($r = -.16$). As expected, there was a moderate positive relationship between family support and peer support ($r = .36$). Similarly, family support and financial stress were significantly related ($r = -.23$).

Linear Regression Analysis

We performed a simultaneous linear regression to determine the relative influence of each key variable in predicting anxiety. Interaction effects were not included in the model because of the large number of possible interactions and the ambiguity inherent in their interpretation.

As with the correlation results, all of the relationships in the regression were significant. Academic distress had the largest beta effect size in the linear regression ($\beta = .36$), followed by financial stress ($\beta = .09$), family support ($\beta = -.05$), and peer support ($\beta = -.04$). The complete model accounted for a medium-to-large amount of the variance in anxiety ($R^2 = .21$).

TABLE 1
Demographic Variables and Relationship to Anxiety

Variable	% Total	% Anx ^a	<i>M</i>	<i>SD</i>	<i>F</i>	η^2
Overall (<i>N</i> = 80,509)	100.0	54.4	1.86	1.04		
Gender					435.19*	.016
Female (<i>n</i> = 49,706)	61.7	59.5	1.96	1.02		
Male (<i>n</i> = 29,330)	36.4	45.5	1.69	1.03		
Transgender (<i>n</i> = 235)	0.3	—	1.95	0.99		
Self-identified (<i>n</i> = 437)	0.5	66.7	2.25	1.01		
Race/ethnicity					44.29*	.004
Black/African American (<i>n</i> = 6,758)	8.4	38.0	1.68	1.04		
American Indian or Alaskan Native (<i>n</i> = 283)	0.4	—	2.02	1.08		
Asian American/Asian (<i>n</i> = 4,997)	6.2	34.8	1.79	0.98		
Hispanic/Latina/o (<i>n</i> = 5,672)	7.0	50.0	1.83	1.02		
Native Hawaiian or Pacific Islander (<i>n</i> = 171)	0.2	—	1.75	1.03		
Multiracial (<i>n</i> = 3,483)	4.3	56.0	1.90	1.03		
White (<i>n</i> = 52,810)	65.6	59.6	1.90	1.04		
Other (<i>n</i> = 1,303)	1.6	61.9	1.90	0.99		
Sexual identity					139.96*	.009
Heterosexual (<i>n</i> = 66,056)	82.0	52.6	1.83	1.03		
Gay (<i>n</i> = 1,262)	1.6	62.5	2.08	1.00		
Lesbian (<i>n</i> = 2,148)	2.7	55.6	1.93	1.00		
Bisexual (<i>n</i> = 3,530)	4.4	71.4	2.19	1.02		
Questioning (<i>n</i> = 1,594)	2.0	55.6	2.14	0.99		
Self-identified (<i>n</i> = 1,979)	2.5	50.0	2.12	1.03		
Housing					56.23*	.003
On campus (dorm/ apartment; <i>n</i> = 25,328)	31.5	47.3	1.80	1.05		
Fraternity/sorority (<i>n</i> = 1,471)	1.8	50.0	1.77	1.07		
Off-campus cooperative housing (<i>n</i> = 681)	0.8	66.7	1.85	1.02		
Off-campus apartment/ house (<i>n</i> = 38,304)	47.6	49.3	1.92	1.03		
Other (<i>n</i> = 820)	1.0	62.5	2.00	1.05		
Year in school					30.37*	.002
Freshman (<i>n</i> = 15,381)	19.1	55.0	1.80	1.08		
Sophomore (<i>n</i> = 15,913)	19.8	58.6	1.85	1.04		
Junior (<i>n</i> = 17,732)	22.0	55.0	1.92	1.03		
Senior (<i>n</i> = 17,105)	21.2	51.8	1.90	1.03		
Graduate student (<i>n</i> = 10,852)	13.5	42.4	1.83	0.99		
Other (<i>n</i> = 1,237)	1.5	40.0	1.84	1.01		
First-generation student					86.01*	.001
Yes (<i>n</i> = 16,008)	19.9	50.4	1.94	1.04		
No (<i>n</i> = 52,364)	65.0	56.5	1.85	1.03		
Transfer student					307.32*	.004
Yes (<i>n</i> = 15,404)	19.1	54.1	1.99	1.03		
No (<i>n</i> = 58,940)	73.2	54.8	1.83	1.04		
International student					89.98*	.001
Yes (<i>n</i> = 3,549)	4.4	45.8	1.70	0.95		
No (<i>n</i> = 72,350)	89.9	54.6	1.87	1.04		

Note. *N* = 80,509. *F* and eta-squared values were calculated using one-way analyses of variance of mean anxiety level. Dashes indicate insufficient data for analysis. Percentages within demographic groups do not total 100 because missing data are not included. Anx = anxious; *M* = mean anxiety level. ^aPercent anxious is based on available Clinical Index of Client Concerns data from a reduced sample of 564 participants.

**p* < .01.

TABLE 2
Descriptive Statistics, Correlations, and Regression Results
for Study Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	<i>sr</i>	β
1. Anxiety	1.86	1.04	—					—	
2. Academic distress	1.95	1.12	.45	—				.38	.36
3. Financial stress	3.18	1.14	.20	.23	—			.09	.09
4. Peer support	3.50	1.21	-.16	-.19	-.14	—		-.04	-.04
5. Family support	3.56	1.32	-.17	-.19	-.23	.36	—	-.05	-.05

Note. All bivariate correlations, semipartial correlations, and standardized regression coefficients (*SE* = .004) are significant at the $p < .01$ level. $F(5, 80503) = 2,731.14$, $p < .01$, $R^2 = .21$.

Discussion

This study examined the relative impact of academic distress, financial stress, peer support, and family support on college student anxiety using a recent national sample of college students. With increasing numbers of students reporting anxiety and anxiety-related concerns (Kitzrow, 2003; Samuolis et al., 2015) and given that there has yet to be a study of collegiate anxiety that uses a national sample, our study provides updated and timely information that may be beneficial to college counseling centers and counselors. We found that academic distress, financial stress, peer support, and family support accounted for a large proportion of the variance in collegiate anxiety. All of the predictors significantly predicted anxiety, with academic distress accounting for the largest proportion of variance, followed by financial stress, family support, and peer support. Next, we discuss ways to understand our findings and the implications they have for college counseling centers and counselors.

Sociodemographic Characteristics

The most influential sociodemographic variable was gender, which is unsurprising given what is known about anxiety rates in general (Burstein, Beesdo-Baum, He, & Merikangas, 2014). Our results regarding sexual identity aligned with minority stress theory, with sexual minorities experiencing above-average rates of distress (Lefevor, Park, & Pedersen, 2018; Meyer, 2003). In the remaining variables, although significant differences emerged between groups, the effect sizes of these comparisons were very small ($\eta^2 < .005$). Rather than interpreting the differences that emerged, we see this trend as an indicator that group differences were not substantial. For example, it appears that college students of all races/ethnicities experience similar levels of anxiety. In addition, there was little difference in anxiety among transfer students, international students, first-generation students, students farther or less far along in school, and students living in various types of housing. This finding may indicate success in college programs designed to provide equal opportunities to all students. Furthermore, the relative parity across demographic variables highlights that anxiety affects students from all sexual orientations, genders, and racial/ethnic groups. Although anxiety may be experienced differently based on cultural or identity factors, our study indicates that anxiety is experienced at roughly equal rates by a variety of students.

Academic Distress

Our results indicated that, of the variables measured, academic distress accounted for the most variance in anxiety. Although the link between academic distress and anxiety is not a novel finding, the extent to which academic distress predicted anxiety, especially relative to other well-known predictors of anxiety, is an important contribution to understanding collegiate anxiety. Several explanations of this phenomenon are plausible. First, the strength of this link could be best understood as the result of increased pressure on college students to perform well academically (Crocker & Luhtanen, 2003), given that academic performance is pertinent to future careers and employment status. Second, with greater competition and higher numbers of college graduates (Uno et al., 2010), it is plausible that academic distress is overwhelming for many students, leading to increases in anxiety. Finally, it is plausible that increases in anxiety may affect students' academic distress more severely than their perception of support or level of financial stress. In other words, students' anxiety may frequently take the form of academic concerns.

Financial Stress

We found that financial stress was significantly related to anxiety and accounted for the most unique variance in anxiety after academic distress. In our sample, 62.5% of the students indicated that their financial situation was at least “sometimes stressful,” whereas 7.5% indicated that it was “always stressful.” Financial stress was also significantly correlated with academic distress, which is unsurprising given that nearly two thirds of college students report some concern about finishing their degree because of financial reasons (HERI, 2002).

Although financial concerns and socioeconomic status have been consistently linked to anxiety and negative outcomes in the larger literature (e.g., Archuleta et al., 2013; Lund et al., 2010), little work has been done in this area specifically targeted toward college students in counseling. The relationships found between financial stress, anxiety, and academic distress indicate that financial stress is relevant for college students and may lead to negative outcomes.

Family and Peer Support

Although family and peer support accounted for a smaller portion of the variance in anxiety relative to academic distress, both were significantly negatively related to anxiety. This negative relationship has been consistently found (Mahmoud et al., 2015; Malecki & Demaray, 2003) and may be explained by several factors, including receiving direct support for academics (Budescu & Silverman, 2016; Thompson & Mazer, 2009), receiving emotional support in navigating adjustment to college (Wintre & Yaffe, 2000), and buffering the effects of stress (Demaray et al., 2005). The finding that family and peer support had small effect sizes—and that these effect sizes were smaller than those for financial stress and academic distress—is novel. Although both forms of social support were significantly correlated with academic distress, thus indicating overlap between the variables, the proportion of unique variance in anxiety explained by family and peer support together was less than 1%.

Implications for College Counseling

Understanding the nature of anxiety in college students has immediate implications in the practice of college counseling. Given that 20% of the variance in anxiety in our study was attributable to academic distress, counselors working with college students should be especially mindful to ask about academic stressors on intake and throughout treatment. Counselors may also use psychoeducation to help students understand the bidirectional nature of anxiety and academic distress (Mahmoud et al., 2015; Misra & McKean, 2000). Counselors may teach students study and time management skills to combat the proximal concern of academic performance, as well as coping skills to resolve anxiety associated with future plans and to help students feel better equipped to meet high academic expectations.

In addition, students may benefit from increased outreach and prevention efforts focused on managing academic distress within college counseling centers. Presentations and workshops on effective stress management skills, distress tolerance, study skills, and planning may help students prevent or cope with academic distress so that it does not come to the point of intolerance. Because anxiety is the top-rated concern for which college students seek mental health treatment (CCMH, 2017), these preventive efforts may help counseling centers more effectively reach a large number of clients, including the 82% of students who are theorized to suffer from mental health issues without seeking treatment (Blanco et al., 2008). In combination, counseling centers may form anxiety-themed groups that incorporate skills for managing academic distress to serve a larger number of clients with limited resources.

Financial stress accounted for the next largest proportion of variance after academic distress. Counselors and counseling centers alike could play a key role in mitigating the effects of difficult financial situations in students. If students are facing insolvency, poor housing, or poor nutrition or are considering dropping out of school because of a lack of financial resources, it is unlikely that counseling will have a large effect on anxiety until these issues have been resolved. Colleges and counseling centers can provide support for students by offering financial workshops and bringing sources of financial aid to students' awareness to help students understand how to manage their finances and take advantage of available financial resources.

Surprisingly, the proportion of unique variance in anxiety explained by family and peer support together was less than 1%. This finding suggests that counselors may work most effectively in helping students reduce anxiety by focusing directly on academic distress. Given that academic distress and the support variables showed great overlap, and the support variables exhibited small-to-medium bivariate correlations with anxiety, focusing on support may still be helpful. However, focusing on support to reduce academic distress may be a more efficacious way to help students reduce anxiety.

Limitations

There are some limitations to our findings that should be noted. First, although the sample we used was national and diverse, it was not specifically designed to be

nationally representative, and it was also a treatment-seeking sample. These factors limit the generalizability of our findings but still provide an appropriate portrayal of students who seek treatment at college counseling centers. Second, there was an imparity in measurement that may have affected the outcomes. Specifically, we measured financial stress and both support variables using a single question, whereas anxiety and academic distress were measured using a series of questions. It is possible that the disproportionately large influence of academic distress was a result of the other variables being less statistically robust. Additional research using different measures with multiple items would be helpful to corroborate our findings. Finally, although we were able to demonstrate significant relationships between several variables and anxiety, we were not able to determine the causality of these relationships or other factors that may have mediated these relationships. Additional research is needed to expand on these findings.

Conclusion

This study was designed to better understand the experience of anxiety in contemporary college students. We found that academic distress, financial stress, family support, and peer support were each significantly related to anxiety and together explained a large proportion of the variance ($R^2 = .21$) in collegiate anxiety. Academic distress most uniquely predicted anxiety, with the other study variables accounting for little variance beyond academic distress. Sociodemographic variables accounted for surprisingly little variance in predicting anxiety. Therefore, counselors and counseling centers can best help students by focusing directly on their academic and financial concerns. Future studies could investigate how a non-treatment-seeking sample of college students experiences anxiety as well as what steps should be taken to reduce anxiety in college students.

References

- Archuleta, K. L., Dale, A., & Spann, S. M. (2013). College students and financial distress: Exploring debt, financial satisfaction, and financial anxiety. *Journal of Financial Counseling and Planning, 24*, 50–62.
- Ashcraft, M. H., & Kirk, E. P. (2001). The relationships among working memory, math anxiety, and performance. *Journal of Experimental Psychology: General, 130*, 224–237. doi:10.1037/0096-3445.130.2.224
- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders, 173*, 90–96. doi:10.1016/j.jad.2014.10.054
- Bishop, J. B., Bauer, K. W., & Becker, E. T. (1998). A survey of counseling needs of male and female college students. *Journal of College Student Development, 39*, 205–210.
- Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olsson, M. (2008). Mental health of college students and their non-college-attending peers: Results from the National Epidemiologic Study on Alcohol and Related Conditions. *Archives of General Psychiatry, 65*, 1429–1437.
- Budescu, M., & Silverman, L. R. (2016). Kinship support and academic efficacy among college students: A cross-sectional examination. *Journal of Child and Family Studies, 25*, 1789–1801. doi:10.1007/s10826-016-0359-z
- Burstein, M., Beesdo-Baum, K., He, J., & Merikangas, K. R. (2014). Threshold and subthreshold generalized anxiety disorder among US adolescents: Prevalence, sociodemographic, and clinical characteristics. *Psychological Medicine, 44*, 2351–2362. doi:10.1017/S003391713002997

- Center for Collegiate Mental Health. (2017). *Standardized Data Set (SDS)* (Publication No. U.Ed. STA 17-21). Retrieved from <https://sites.psu.edu/ccmh/files/2017/08/SDS-Manual-v.4.2-1o60h2h.pdf>
- Citi. (2013, August 7). *New Citi/Seventeen survey: College students take control of their financial futures* [Press release]. Retrieved from <http://www.citigroup.com/citi/news/2013/130807a.htm>
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310–357. doi:10.1037/0033-2909.98.2.310
- Crocker, J., & Luhtanen, R. K. (2003). Level of self-esteem and contingencies of self-worth: Unique effects on academic, social and financial problems in college students. *Personality and Social Psychology Bulletin*, *29*, 701–712. doi:10.1177/146167203029006003
- Demaray, M. K., Malecki, C. K., Davidson, L. M., Hodgson, K. K., & Rebus, P. J. (2005). The relationship between social support and student adjustment: A longitudinal analysis. *Psychology in the Schools*, *42*, 691–706. doi:1002/pits.20120
- Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. *The B.E. Journal of Economic Analysis & Policy*, *9*. doi:10.2202/1935-1682.2191
- Faragher, E. B., Cass, M., & Cooper, C. L. (2005). The relationship between job satisfaction and health: A meta-analysis. *Occupational and Environmental Medicine*, *62*, 105–112.
- Felsten, G., & Wilcox, K. (1992). Influences of stress and situation-specific mastery beliefs and satisfaction with social support on well-being and academic performance. *Psychological Reports*, *70*, 291–303. doi:10.2466/PR0.70.1.291-303
- Goldscheider, F. K., & Davanzo, J. (1986). Semiautonomy and leaving home in early adulthood. *Social Forces*, *65*, 187–201. doi:10.2307/2578942
- Higher Education Research Institute. (2002). *The official press release for the American freshman 2002*. Los Angeles: University of California Press.
- Hodgson, C. S., & Simoni, J. M. (1995). Graduate student academic and psychological functioning. *Journal of College Student Development*, *36*, 244–253.
- Holt, L. J. (2014). Help seeking and social competence mediate the parental attachment–college student adjustment relation. *Personal Relationships*, *21*, 640–654. doi:10.1111/perc.12055
- Hunt, J., & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health*, *46*, 3–10.
- Joo, S. H., Durband, D. B., & Grable, J. (2008). The academic impact of financial stress on college students. *Journal of College Student Retention: Research, Theory & Practice*, *10*, 287–305.
- Kitzrow, M. A. (2003). The mental health needs of today's college students: Challenges and recommendations. *NASPA Journal*, *41*, 167–181.
- Larose, S., & Boivin, M. (1998). Attachment to parents, social support expectations, and socioemotional adjustment during the high school–college transition. *Journal of Research on Adolescence*, *8*, 1–27.
- Lefevor, G. T., Park, S. Y., & Pedersen, T. R. (2018). Psychological distress among sexual and religious minorities: An examination of power and privilege. *Journal of Gay & Lesbian Mental Health*, *22*, 90–104. doi:10.1080/19359705.2017.1418696
- Locke, B. D., Buzolitz, J. S., Lei, P.-W., Boswell, J. F., McAleavey, A. A., Sevig, T. D., . . . Hayes, J. A. (2011). Development of the Counseling Center Assessment of Psychological Symptoms–62 (CCAPS-62). *Journal of Counseling Psychology*, *58*, 97–109. doi:10.1037/a0021282
- Locke, B. D., McAleavey, A. A., Zhao, Y., Lei, P.-W., Hayes, J. A., Castonguay, L. G., . . . Lin, Y.-C. (2012). Development and initial validation of the Counseling Center Assessment of Psychological Symptoms–34. *Measurement and Evaluation in Counseling and Development*, *45*, 151–169. doi:10.1177/0748175611432642
- Lund, C., Breen, A., Flisher, A. J., Kakuma, R., Corrigall, J., Joska, J. A., . . . Patel, V. (2010). Poverty and common mental disorders in low and middle income countries: A systematic review. *Social Science & Medicine*, *71*, 517–528.
- Mahmoud, J. R., Staten, R., Lennie, T. A., & Hall, L. A. (2015). The relationships of coping, negative thinking, life satisfaction, social support, and selected demographics with anxiety of young adult college students. *Journal of Child and Adolescent Psychiatric Nursing*, *28*, 97–108. doi:10.1111/jcap.12109
- Malecki, C. K., & Demaray, M. K. (2003). What type of support do they need? Investigating student adjustment as related to emotional, informational, appraisal, and instrumental support. *School Psychology Quarterly*, *18*, 231–252. doi:10.1521/scpq.18.3.231.22576

- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, *52*, 397–422.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, *129*, 674–697. doi:10.1037/0033-2909.129.5.674
- Misra, R., & McKean, M. (2000). College students' academic stress and its relation to their anxiety, time management, and leisure satisfaction. *American Journal of Health Studies*, *16*, 41–51.
- Owens, M., Stevenson, J., Hadwin, J. A., & Norgate, R. (2012). Anxiety and depression in academic performance: An exploration of the mediating factors of worry and working memory. *School Psychology International*, *33*, 433–449.
- Roberts, R., Golding, J., & Towell, T. (1998). Student finance and mental health. *The Psychologist*, *11*, 489–491.
- Roberts, R., Golding, J., Towell, T., Reid, S., Woodford, S., Vetere, A., & Weinreb, I. (2000). Mental and physical health in students: The role of economic circumstances. *British Journal of Health Psychology*, *5*, 289–297.
- Samuolis, J., Barcellos, M., LaFlam, J., Belson, D., & Berard, J. (2015). Mental health issues and their relation to identity distress in college students. *Identity: An International Journal of Theory and Research*, *15*, 66–73. doi:10.1080/15283488.2014.989443
- Song, J., Bong, M., Lee, K., & Kim, S. (2015). Longitudinal investigation into the role of perceived social support in adolescents' academic motivation and achievement. *Journal of Education Psychology*, *107*, 821–841.
- Spielberger, C. D. (1966). The effects of anxiety on complex learning and academic achievement. In C. D. Spielberger (Ed.), *Anxiety and behavior* (361–398). New York, NY: Academic Press.
- Stallman, H. M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist*, *45*, 249–257. doi:10.1080/00050067.2010.482109
- Taylor, P., Parker, K., Fry, R., Cohn, D., Wang, W., Velasco, G., & Dockterman, D. (2011). *Is college worth it?* Washington, DC: Pew Research Center.
- Thompson, B. (2008). How college freshmen communicate student academic support: A grounded theory study. *Communication Education*, *57*, 123–144.
- Thompson, B., & Mazer, J. P. (2009). College student ratings of student academic support: Frequency, importance, and modes of communication. *Communication Education*, *58*, 433–458. doi:10.1080/03634520902930440
- Uno, M., Mortimer, J. T., Kim, M., & Vuolo, M. (2010). “Holding on” or “coming to terms” with educational underachievement: A longitudinal study of ambition and attainment. *New Directions for Child and Adolescent Development*, *2010*, 41–56.
- Wintre, M. G., & Yaffe, M. (2000). First-year students' adjustment to university life as a function of relationships with parents. *Journal of Adolescent Research*, *15*, 9–37.