Original Research Article

THE ROLE OF PSYCHOSOCIAL FACTORS AS PREDICTORS OF STUDENT SUCCESS

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Abstract

This study examined the academic, behavioral, and socio-emotional health of 125 first-time freshmen and 86 graduating seniors at a HBCU. It compared the types of challenges that students face on entering college with the challenges experienced as they are about to graduate. The goal was to develop a predictive model of student success with intervention strategies that address the challenges associated with retention and graduation. It was predicted that substance use, mental health challenges and level of stress experienced by students will impact academic success as measured by grade point average (GPA). Also, it was hypothesized that the impact of these psychosocial factors will be different for freshmen and seniors. The results of the study indicated that academic success was negatively related to alcohol and marijuana use for a subsample of females only. High levels of depression and anxiety resulted in alcohol abuse for all participants. Stress had a negative impact on academic success with the highest impact evident among freshmen. Intrapersonal stress was a major factor in determining academic success. These results will inform educators about the role of behavioral and socio-emotional factors in the lives of students and how the relationship among these variables impact retention and graduation.

Keywords: Anxiety, Depression, Stress, Substance Use and Abuse, Academic Achievement

Introduction

Current research about young adult college students show that they experience increased levels of depression, anxiety, and stress as they pursue a college degree. Exacerbation of these factors may result in many of them developing mood disorders such as major depression and anxiety. These related disorders usually lead to maladaptive coping strategies such as substance use and abuse. The Higher Education Center for Alcohol, Other Drug abuse and Violence Prevention has reported that although African Americans at HBCUs drink and smoke less marijuana than students at predominantly white institutions, the use of these substances is steadily rising. As a consequence, students exhibit poor academic performance resulting in lower retention and graduation rates and ultimately, financial stress due to academic failures and the burden of having to repeat courses. Newer research (Avdi, 2023) has shown that substance use leads to stress-induced cognitive impairment among college students which in turn has a significant impact on their levels of anxiety and

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depression. Therefore, recognizing the symptoms associated with these disorders, particularly in freshmen, would lessen the deleterious impact on their academic success if early intervention strategies are used. In addition, early identification can also lead to early intervention which may prevent poor academic performance.

Many universities are now focusing more attention on the mental health of college students, especially during their first year of matriculation. The American College Health Association has identified stress as the primary cause of impaired academic performance and the ways students cope with stressors have led to other mental health disorders to include anxiety, depression and substance use/abuse (ACHA, 2022, Beiter, 2014). After reviewing the literature on depression, The American College Health Association found that 36% of college students reported feelings of depression severe enough to affect their functioning. It has been shown that students who suffer from depression are more likely to drink with the purpose of getting drunk and are more susceptible to problems associated with alcohol abuse. Additional research has shown that nationally, 17% of college students felt too depressed to function normally and as of Fall 2018, 22% of them were diagnosed with an anxiety disorder (ACHA, 2018). Weitzman (2004) determined that students with poor mental health and depression were more likely to experience drinking-related harm and to drink for the purpose of getting intoxicated. Recent reports (ACHA, 2018) indicate that 14.2% of college students have five or more drinks in one sitting leading to major alcohol related problems.

Anxiety disorders appear to be the most prevalent mental health issue on college campuses and students have reported symptoms severe enough to affect their daily functioning (American Psychological Association, 2013). The National Alliance on Mental Illness (2012) reported that 13% of college students admitted to having a diagnosis of an anxiety disorder. As a result, many of these students with mental health issues are more likely to withdraw from college than students without these issues. In addition, students with anxiety disorders are two to five times more likely to be diagnosed with alcohol use disorder and engage in binge drinking which is often associated with a diagnosis of generalized anxiety disorder. This is substantiated by research data which showed that between 2013 to 2017, 40% of college students were hospitalized for mental health concerns with the primary diagnoses of depression and anxiety (CCMH, 2017).

Another factor that must be considered is the role of stress and its impact on the mental health of students. The American College Health Association has identified stress as the primary cause of impaired academic performance (ACHA, 2018). Between 2010 and 2013, 10.3% of students had been hospitalized because of stress induced health issues (Center for Collegiate and Mental Health, 2013), and there are 1.100 undergraduate suicides each year that are caused by stress. Eighty percent of college students experience daily stress and the amount of stress experienced may be influenced by the person's ability to effectively cope with stressful events and situations. It is well known that stress is a result of the interaction between stressors and the individual's perception and reaction to the stressors. The type of stressor, whether it be intrapersonal, interpersonal, academic, or environmental, often contributes to the severity of the stress. Given these factors and the maladaptive coping strategies that are utilized by college students, it is important to examine the behavioral tendencies, not only for current college students, but also for those who are just entering college in particular.

While the relationships among stress, anxiety, depression and substance use have been extensively studied at Predominantly White Institutions (PWI) and researchers have examined the same variables among African American students at PWIs, this issue has not been appropriately addressed among students attending Historically Black Colleges and Universities (HBCUs). According to Arnett (2005), there is a distinct developmental period from ages 18 -25 called emerging adulthood, which involves a transition into adulthood and is associated with factors such as increased need for college education, identity development, increased experimentation with drugs and alcohol, relationships and marriage, and parenthood. One of the attributes of Bowie State University (BSU) is that it prides itself on providing quality education to non-traditional students. This group of students includes single mothers and fathers, divorced and married students closer in age to the emerging adults (25 years old), employed both full and part-time, and military veterans with many physical and sometimes mental health issues. As such, disorders like depression, anxiety and substance use becomes the norm, rather than the exception, particularly now that there has been a decriminalization

of marijuana use in some states. Additionally, undiagnosed mental health problems have been seen to impact students' performance and relationships with professors in many unfavorable ways.

In most current college environments, there are several questions to be considered. What is the state of mental health for incoming freshmen? Do they develop poor mental health after being introduced to the rigors of college or is college a trigger for those issues? Alternatively, does the stress of college exacerbate a pre-existing mental health issue? Overall, only 32% of four-year college and university health centers routinely screen students for alcohol use. Also, there is a paucity of research that addresses these questions, especially among minority populations. According to The Association for Trauma Outreach and Prevention (ATOP) (2015), more than 85 percent of college students believe their peers have used marijuana within the past 30 days, while only 38 percent of college students have reported using marijuana in the last 12 months. College students who use marijuana frequently are more likely to use other drugs such as alcohol (D'Silva et al, 2019, Mekonen et al, 2017). The impact can be seen in delayed graduation, lower GPAs and an increase in dropout rates.

Therefore, the purpose of this study was to examine these issues in minority students to determine the relationships among depression, anxiety, stress and substance use and abuse and the impact of these factors on students' academic, social, and emotional functioning. It is hypothesized that (1) substance use will have a negative impact on student success as measured by GPA; (2) students who obtain higher scores on depression and anxiety will also earn high scores for alcohol abuse; and (3) the level of stress will have an impact on academic success.

Materials and Methods

Participants

A convenience sample of 211 students, 125 Freshmen, 86 Seniors were recruited from psychology courses at Bowie State University. Students ranged in age from 17 – 43 years with a mean age of 22 years. There were 72.9% females and 22.9% males which is representative of the gender breakdown at Bowie State University (BSU). Participants were predominantly African American (81.3%) with Hispanic, Caucasian, multiracial, biracial and other participants representing approximately 18.7% of the sample.

Measures

The Alcohol Abuse, Depression, and Anxiety Subscales of the Behavioral Assessment System for Children, (BASC-3 – College students). These rating scales identify participants who engage in drinking behaviors that have the potential to lead to substance abuse, and participants who score at different levels on depression and anxiety (low, medium, high).

The Student Stress Scale (Holmes & Rahe, 1967) was used to determine the level of stress and type of stressors.

A Demographic Questionnaire was used to gather basic demographic data on age, ethnicity, student status, achievement and grades.

Procedure

Students were recruited from psychology and other courses at BSU and were briefed about the study and allowed to ask questions. Once they were briefed, they were asked to sign and date the consent form prior to any assessments. Participants were assessed in the psychology lab as a group on different days during the assessment period. All surveys were given during one sitting and counter-balanced. Students were then debriefed and were compensated with extra credit that could be used for the course from which they were recruited.

Results

Data collected were analyzed using the Statistical Package for the Social Sciences (SPSS). Pearson correlations were used to determine the relationships among individual factors. Linear regression analysis was used to predict students' GPA from their depression, anxiety and stress scores. Summaries of the correlations for hypotheses 1 and 2 appear in Tables 1 and 2.

	1 Stress	2 State Anxiety	3 Trait Anxiety	4 Alcohol	5 Drug	6 Depression
1. Stress	-					
2. State Anxiety	.32**	-				
3. Trait Anxiety	.35**	.44**	-			
4. Alcohol	.04	.09	-.05	-		
5. Drug	.04	.07	.01	.78**	-	
6. Depression	.30**	.08	.47**	.16*	.22**	-

Table 1. Correlations among study variables
** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

	1 Stress	2 State Anxiety	3 Trait Anxiety	4 Depression	5 GPA
1. Stress	-				
2. State Anxiety	.32**	-			
3. Trait Anxiety	.35**	.44**	-		
4. Depression	.29**	.08	.47**	-	
5. GPA	-.30**	-.04	-.11	-.14	-

Table 2. Correlations among Stress, Anxiety, Depression and Academic Performance
** Correlation is significant at the 0.01 level (2-tailed).

For hypothesis 1, there are significant positive relationships between stress and state anxiety, r (192) = .32, $p < .01$, stress and trait anxiety, r (192) = .35, $p < .01$ and stress and depression, r (192) = .30, $p < .01$. Significant positive relationships were found between trait anxiety and depression, r (192) = .47, $p < .01$. Depression was positively correlated to alcohol use, r (192) = .16, $p < .05$ and marijuana use, r (192) = .22, $p < .01$.

Hypothesis 2 examined the impact of stress, anxiety and depression on academic performance. Overall, there is a significant negative relationship between stress and academic performance, r (192) = -.30 $p < .01$ as students with higher stress levels have lower GPAs. Results from linear regression analysis indicated that stress had a small but significant impact on academic performance. Stress explained 5.5% of a student's GPA and for every one-point increase in stress scores, a student's GPA decreased by .001 points. Anxiety and depression had no significant effect on GPA.

Hypothesis 3 examined the impact of stress and anxiety on depression and the use of alcohol as a coping strategy. Results indicated that stress had a significant effect on the levels of depression experienced by students. In other words, students with high levels of stress had higher depression scores than students with low levels of stress.

Discussion

In the current study, significant positive relationships were obtained between stress, state and trait anxiety, and depression, Also, significant positive relationships were found between trait anxiety and depression, while depression significantly correlated with alcohol use and marijuana use. Students who admitted to alcohol use, especially those who admitted to drinking to the point of abuse, stated that they drank to cope. It was not stated what issues they were coping with, but given the fact that the Student Stress Scale scores were exceedingly high for a large majority of the participants, it can be assumed that they were coping with life issues, many of which left long lasting emotional scars.

As noted in previous studies, stress and coping with stressors, usually correlate highly with depression, which ultimately leads to ineffective coping skills, and subsequently affect academic

success. Hypothesis 2 examined the impact of stress, anxiety and depression on academic performance. Overall, there was a significant negative relationship between stress and academic performance as students with higher stress levels tended to earn lower GPAs. However, while high stress levels played a significant role in students' academic performance, it only accounted for 5.5% of the student's GPA. It appears that other factors, for example, poor class attendance, tardiness, missing assignments, lack of child-care on days of examination, also contribute to course failures and GPAs. The current study also found that anxiety and depression had no significant effect on GPA. Also noteworthy is the fact that most students' depression scores fell in the average range. Only 11 of the 192 participants scores actually fell in the moderately depressed range, while 13 participants scores fell in the severely depressed range. Even though anxiety and depression were moderately correlated, separately or combined they did not predict GPA. One possible explanation could be that the Beck Depression Inventory 2 (BDI-II) is a clinical scale, and our students did not admit to the severity of symptoms of that measure that would have deemed them clinically depressed. The Beck-11 is typically used for clinical populations.

Results of Hypothesis 3 indicated that stress had a significant effect on the levels of depression experienced by students. In other words, students with high levels of stress had higher depression scores than students with low levels of stress. However, stress and anxiety had no effect on alcohol use. Although 65% of the students admitted to drinking, 42% stated that they were normal drinkers (only drank at social occasions). However, 34% of those who admitted to drinking on a more regular basis, although they still considered themselves drinking within the normal range, stated that they were drinking to cope, 17% stated that they drank to relax, 9% said they drank to enhance performance, 9% because it was expected, and another 4% to be socially accepted. It is unclear from this population whether depression played a role in their drinking habits since students had a difficult time admitting to more than mild symptoms of depression.

Conclusion

Our students experience a great deal of stress and anxiety. The more stressed and anxious they are, the more depressed they become. However, many are from lower SES backgrounds and are used to living with stress and anxiety. Therefore, they do not realistically view their situations as depressing enough to seek psychological help. Students have admitted to self- medicating and using alcohol and marijuana as ways of dealing with stress and anxiety. Consistent with prior research, students of African American heritage do not seek out professional help for reasons they consider minor in their everyday life. Even though mental health services are offered at the University Counseling Center, a more recent study by these authors have identified that the students are under-utilizing the counseling services provided for reasons such as the stigma of mental health, confidentiality, and distrust of the mental health system offered coupled with the fear that others will "somehow know their business". Another important area of research is to identify the types of stressors that students are experiencing that may be contributing to anxiety and depression symptomatology. To deal with this issue, several recommendations may be considered: (1) Utilize confidential mental health screeners to assess students at the beginning of their freshman year with the goal of obtaining baseline information on all students: (2) target students who score in the at-risk category on measures of stress, anxiety, depression and drug and alcohol usage; (3) make students aware of university resources that promote mental health well-being early; and (4) provide workshops addressing mental health issues and involve staff at various levels of the university's hierarchy. The ultimate goal is to provide access to and resources for mental health services. Helping students to minimize stress, learn better coping skills for issues related to anxiety and depression, provide better strategies that excludes drug and alcohol use, may be more influential in promoting retention and increasing graduation rates for students at HBCUs.

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