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A Comparison of Mental Health and Alcohol Use Between Traditional and Nontraditional Students

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Abstract

Objective—To describe differences in life stress, anxiety, depression, and alcohol use between traditional and nontraditional college students.

Participants—A targeted, stratified sample of college students (N = 1187; M_{age} = 23.96, SD = 7.30; female 67.2%) completed study surveys in Spring 2011.

Methods—Participants completed demographic information, Life Stress (CRYSIS), Beck Anxiety Scale, Depression Scale (CESD), and alcohol use (AUDIT-C) during regularly scheduled class times.

Results—Fifty-three percent (n = 630) of study participants were nontraditional students. Nontraditional students scored significantly higher than traditional students on life stress [t (1182) = -3.05, p < .01], anxiety [t (1175) = -2.20, p < .05], and depression, [t (1174) = -2.22, p < .05]. Nontraditional and traditional students did not differ on alcohol use.

Conclusions—Interventions for nontraditional college students should address the mental health issues specific to this growing college sub-population.

Keywords

nontraditional college students; mental health; alcohol use

One-third of the college population in the United States are nontraditional college students.[1] College students under the age of 23 years now account for only 57% of undergraduates, with more than 27% of undergraduates reporting dependents (13% were single parents), and 39% employed full-time.[2] Nontraditional college students, a unique segment of the general college population, are more likely to balance the responsibilities of work, family, and school than traditional college students. Studies have found that college students in general may be susceptible to mental health problems, such as stress and poorer overall health.[3,4] Mental health problems such as depression have a detrimental effect on GPA, and if left untreated, depression and anxiety are risk factors for poorer academic performance.[5,6] These findings may have serious implications for nontraditional college students.

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These students tend to be older with children, enrolled part-time students, working a full-time jobs, having not proceeded directly to college after graduation from high school.[1,7] According to Horn and Carroll nontraditional students tend to be racial-ethnic minorities who are less likely to have a parent that graduated from college.[1] These characteristics may put nontraditional students at risk for attrition. Half of highly nontraditional students seeking a bachelor's degree were no longer enrolled after 3 years, compared to only 12% of traditional college students.[8] They may experience stress in domains that traditional college students do not, which may adversely affect mental health and academic success.[9,10]

Post-secondary educational policy and practice has become increasingly focused on the ability of higher education 's ability to meet the workforce needs of the nation, yet nontraditional students have been largely left out as a studied group.[7] Although some studies have examined psychological well-being and wellness within traditional and nontraditional students,[11,12] a thorough review of the literature revealed only one study that investigated rates of depression by ethnicity among nontraditional students [13] and no studies have assessed differences in mental health or alcohol use between traditional and nontraditional groups. Therefore, it is not clear what kinds of targeted programs aimed at improving the mental health needs of nontraditional college students might contribute to retention among this group.

The current study is specifically designed to address the gap in the literature by describing differences in life stress, anxiety, depression, and alcohol use between traditional and non-traditional students to inform mental health and college retention interventions targeted toward this population.

Method

Participants

Participants in the current study (N = 1187) had a mean age of 23.96 years (SD = 7.30) and were primarily female (67.2%). Participants self-identified as Caucasian (33.5%), Latino (29.5%), African American (21.9%), Asian American (4.1%), and Other (10.9%). The sample was predominately from a middle class (49.4%) and working class (31.9%) socioeconomic background. Sample characteristics are described in Table 1.

Study Design and Procedure

This large-scale survey to examined the mental health characteristics of college students in a response to elevated depression rates found in a graduate student pilot study at the college. This study was approved by the college Institutional Review Board in 2011 and was funded through the National Institutes of Health (NIH), Research Infrastructure in Minority Institutions (RIMI). The design of this study is cross-sectional. Students were members of the college community and at least 18 years of age. Participants were recruited from college classes that were selected using a targeted, stratified (class rank, undergraduate/graduate, campus) sample. Students were approached in classrooms, with the instructor's permission, to complete the following surveys: Demographic, Life Stress (CRYSIS), Beck Anxiety Scale, Depression Scale (CESD), and alcohol use (AUDIT-C. Participants were informed

that refusing to participate would not impact their grade in the course or relationship with the college. Informed consent and surveys were distributed to participants in blank envelopes. Participants that provided informed consent completed the assessment during class time. Participants returned completed questionnaires in a sealed envelope in an effort to maintain anonymity. Study participants were entered into a raffle for an iPod honorarium offer.

Measures

Demographic Variables—Participants responded to self-report demographic items including age, sex, ethnicity, and social class.

Student Status—Student status was assessed using Horn and Carroll's description to categorize a student's level of nontraditional status.[1] The 7 specific criteria are: age (> 24), part-time enrollement, full-time employment, independence from parents, dependents, single parent, and a GED or high school equivalent certificate. Horn and Carroll use 4 categories of classification: (1) traditional, no characteristics; (2) minimally nontraditional, 1 characteristic; (3) moderately nontraditional, 2 to 3 characteristics; and (4) highly nontraditional, 4 or more characteristics.[1] The current study defines participants with one or more characteristics as nontraditional.

Life Stress—Life stress was assessed using the Crisis in Family Systems (CRISYS).[14] The CRISYS was designed to capture life stressors in contemporary, urban environments. This 63-item measure lists stressful events across 11 content domains; items per domain are as follows: financial (11), legal (3), career (4), relationship (6), safety in the home (3), safety in the community (8), medical issues (self) (6), medical issues (other) (4), home issues (7), difficulty with authority (4), and prejudice (7). Sample items are " Did you get admitted to the hospital?", "Did you go deeply into debt?" Participants indicated (yes/no) whether the event had happened to them within the last 6 months. This measure has adequate test-retest reliability over a 2 week period (r = 0.88) and strong face, content, and predictive validity with the CES-D (r = 0.47).[14] The Cronbach alpha for this measure was 0.84.

Anxiety—Participant anxiety was assessed using the Beck Anxiety Inventory (BAI).[15] The BAI is a 21-item assessment that measures past week symptoms of anxiety. Participants respond to the experience of symptom severity from 0 (not at all) to 3 (severely). Some sample items are: numbness or tingling, unable to relax, and fear of worst happening. The BAI is psychometrically sound with good test-retest reliability over 1 week (r = 0.75), discriminate validity (i.e., anxious diagnostic groups from groups with major depression, dysthymic disorder, etc.), and concurrent validity with the revised Hamilton Anxiety Rating Scale, (r = 0.51.).[15] The Cronbach alpha for this measure was 0.92.[15]

Depression—Depression was assessed using the Center for Epidemiologic Studies Depression Scale (CES-D).[16] This measure is utilized for screening adult depression in community populations. This 20 item measure that lists symptoms of depression one has experienced in the past week. For example, "I felt that I could not shake off the blues even with help from my family." Participants selected the response that best reflects how the item

applies to them from 0 (rarely or none of the time) to 3 (most or all of the time). This measure has been found to have good internal consistency and concurrent validity with the Beck Depression Inventory (r = 0.87).[17] The Cronbach alpha for this measure was 0.88.

Alcohol Use—Alcohol use was assessed using the Alcohol Use Disorders Identification Test Core (AUDIT-C).[18] The AUDIT-C is a 3-item survey that measures the amount and frequency of drinking alcohol. Each item is scored from 0 (never drink) to 4 (4 or more times a week) based on a standard drink equal to a 12 oz beer, 5 oz wine, or 1.5 oz liquor, with a higher score indicating greater and more frequent consumption. The AUDIT-C has good test retest reliability (r = 0.98 over a 3-4 week period),[19] construct validity (r = 0.74 with the full AUDIT),[20] and is sensitive for use in screening for harmful drinking or dependence; with a cut-off of 5 for men sensitivity (r = 0.77) and specificity (r = 0.77) and with a cut-off of 4 for women sensitivity (r = 0.74), and specificity (r = 0.83).[18] The Cronbach alpha for this measure was 0.76.

Data Analysis

Study data were summarized descriptively with frequency distributions, means, and standard deviations. Chi-square analyses were used to identify significant differences in prevalence rates between traditional and nontraditional students on demographic variables including sex, socioeconomic status, and ethnicity. T-tests were used to identify differences in mean scores on age, life stress, anxiety, depression, and alcohol use between traditional and nontraditional students. All data analyses were conducted using PASW Statistics 21.[21]

Results

Fifty-three percent (n = 630) of study participants were categorized as nontraditional students.[1] Nontraditional students were significantly older (M_{age} = 27.30, SD = 8.51) than traditional students (M = 20.21, SD = 2.30 [t(1170) = -18.97, p < .001]. The prevalence of females (71.6%) was highest among nontraditional students, [χ^2(4, 1181) = 11.64, p < .001]. Self-reported socioeconomic status differed significantly between traditional and nontraditional students, [χ^2(1, 1182) = 34.87, p < .001]. Traditional students reported the highest prevalence of middle class (54.7%) status, while nontraditional students reported higher working class (44.7%) status. There were no significant differences in ethnicity proportions between traditional and nontraditional students, [χ^2(4, 1181) = 4.73, p > .05]. See Table 1 for a complete summary of demographic prevalence rates.

Four independent samples t-tests were conducted to compare the mean scores on life stress, anxiety, depression, and alcohol use between traditional and nontraditional students. There was a significant difference in mean scores on life stress for traditional students (M = 6.64, SD = 5.10) compared to nontraditional students (M = 7.66, SD = 6.25) [t(1182) = -3.05, p < .01; mean difference = 1.02, CI: 95% CI (0.36, 1.67); Cohen's d = 0.18]. Mean scores on anxiety were significantly greater for nontraditional students (M = 11.77, SD = 11.17) compared to traditional students (M = 10.43, SD = 9.45) [t(1175) = -2.20, p < .05; mean difference = 1.33, CI: 95% CI (0.14, 2.52); Cohen's d = 0.13]. Nontraditional students also had significantly higher mean scores on depression (M = 15.81, SD = 10.74) than traditional students (M = 14.47, SD = 9.82) [t(1174) = -2.22, p < .05; mean difference = 1.33, CI: 95%

CI (0.15, 2.52); Cohen's $d = 0.13$]. There was no significant difference on mean alcohol use scores for traditional students ($M = 2.88$, $SD = 2.61$) compared to nontraditional students ($M = 2.88$, $SD = 2.61$); $t(1183) = -0.28$, $p > .05$.

Comment

This study clearly illustrates a disparity in life stress, anxiety, and depression between traditional and nontraditional students. Nontraditional students experience these mental health issues at significantly increased levels. The empirical data described here provides support for the consideration of nontraditional college students as a unique sub-group of the college population.

Attrition rates among nontraditional college students have been estimated to be as high as 32%.[22] Previous work investigating nontraditional student attrition has mainly centered on demographic characteristics, satisfaction, and support models of explanation.[23] The current study adds to this attrition literature other crucial factors to consider - life stress, anxiety, and depression. Educational attainment has a positive impact on health and long-term consequences of not completing college may contribute to health disparities.[24-26] The National Center for Health Statistics found that rates of mortality improved incrementally as education increased; those with a college degree gained 10 years on life expectancy over those not completing high school.[27] Describing the unique mental health needs of nontraditional students is an essential step in helping these students effectively manage their responsibilities, remain enrolled in college, and complete their degree.

Limitations

While cross-sectional research is a vital tool in identifying areas for more in-depth study, causal inferences must be reserved for longitudinal designs. These findings may be specific to the metropolitan region where data were collected and generalizability may be limited. Evidence has suggested that SES is associated with mental health,[28-30] therefore, differences in depression, anxiety, and life stress found between traditional and nontraditional students may be partially explained by SES. Future studies could address this issue through moderation analyses and more accurate measure of SES, such as the receipt of federal aid (e.g. Pell Grant) or the Expected Family Contribution (EFC) from the FAFSA. Finally, while others have found ethnic differences by nontraditional status, this finding was not replicated here; possibly a reflection of the diversity of the metropolitan area from which participants were recruited.

Conclusions

The current study fills an important gap in the literature by exploring the differences in mental health and alcohol use between traditional and nontraditional college students. The findings described have valuable health implications for colleges with regard to life stress, anxiety, and depression among nontraditional students. The numbers of nontraditional students on college campuses is expected to rise and few institutions are prepared to meet the mental health needs of this unique group of students. As evident in the current study, nontraditional students have distinct mental health needs. Services should be developed to

reduce life stress within this group that may contribute to depression and anxiety such as childcare, tailored counseling services, peer mentoring, and financial planning. Future research should consider the mental health disparities illustrated here to further inform the development of intervention services targeted to this unique population.

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Table 1

Prevalence of Demographic, Mental Health, and Substance Use Variables for Traditional and Nontraditional Students (*N* = 1187)

	Traditional *n* =557		Non-Traditional *n* = 630		t/χ^2
Demographic Variables	*M*/*n*	*SD*/%	*M*/*n*	SD/%	
Age (*M*/*SD*)	20.21	2.30	27.30	8.51	-18.97***
Sex (*n*/%)					
Male	209	37.7	178	28.4	11.64***
Female	345	62.3	449	71.6	
Socioeconomic Status (*n*/%)					
Lower	27	4.9	33	5.3	34.87***
Working	133	24.0	244	38.9	
Middle	303	54.7	281	44.7	
Upper Middle	84	15.2	59	9.4	
Upper	7	1.3	11	1.8	
Ethnicity (*n*/%)					
African American	124	22.4	135	21.5	4.73
Caucasian	198	35.7	198	31.6	
Latino	147	26.5	201	32.1	
Asian American	23	4.2	26	4.1	
Other	62	11.2	67	10.7	
Mental Health (*M*/*SD*)					
Life stress	6.64	5.10	7.66	6.25	-3.05**
Anxiety	10.43	9.45	11.77	11.17	-2.20*
Depression	14.47	9.82	15.81	10.74	-2.22*
Substance Use (*M*/*SD*)					
Alcohol	2.88	2.61	2.92	2.45	-0.28

* $p < .05$.

** $p < .01$.

*** $p < .001$.

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