

Mental Health Factors: Stress, Loneliness, and Academic Performance in Domestic vs. International College Students

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Background

College students, particularly international students, face unique challenges related to mental health and academic performance. Previous studies have shown that stress, loneliness, and psychological distress significantly impact both domestic and international students, but the extent and predictors of these issues may vary between groups.

Methods

Data were drawn from 102,905 respondents in the 2022 American College Health Association's National College Health Assessment, including 89,663 domestic and 13,242 international students. A cross-sectional secondary analysis using logistic regression examined associations between stress and variables such as loneliness, psychological distress, and academic outcomes.

Results

Stress significantly predicted loneliness, psychological distress, and educational challenges in both groups. International students had slightly higher odds of experiencing loneliness ($AOR = 1.508$) and academic distress ($AOR = 4.467$) than domestic students.

Discussion

The findings of this study underscore the importance of understanding the distinct mental health challenges faced by domestic and international college students.

Conclusion

Tailored mental health interventions and social integration initiatives are essential to addressing international students' unique challenges and promoting their well-being and academic success.

INTRODUCTION

Mental health is a significant concern for college students, with the Healthy Minds Study indicating that 60% of students report at least one mental health issue.¹ Mental health challenges, such as stress, depression, and anxiety, can adversely affect academic performance, physical health, substance use, and life satisfaction.² These challenges often intersect with broader health inequities, disproportionately affecting students based on gender identities, sexual orientation, and racial/ethnic backgrounds.³ For instance, minority groups may face heightened stigma, reduced access to culturally sensitive care, and compounded stress from discrimination.⁴ Unfortunately, psychological distress increases upon college entry. It does not

return to pre-college levels post-graduation.^{5,6} These difficulties often lead to social isolation, particularly among first-year students, whose emotional and academic pressures make even simple tasks feel exhausting.^{7,8} Despite widespread research on college student mental health, limited studies explore how these disparities manifest between domestic and international students, creating gaps in understanding the intersection of cultural background and identity-specific vulnerabilities.

INTERNATIONAL COLLEGE STUDENTS AND MENTAL HEALTH

International students in the U.S. represent over 1 million individuals, contributing significantly to the economy and campus diversity⁹ but also experience compounding stres-

sors such as racism, xenophobia, and isolation from support networks that align with their identities.¹⁰ However, these students face unique stressors, such as language barriers, cultural adaptation, financial strain, and isolation from family. International students often report higher levels of anxiety, loneliness, and social isolation, particularly those from non-English-speaking countries.^{11,12} Cultural stigma around mental health further discourages help-seeking behavior. Additionally, visa restrictions increase stress, as academic performance is directly tied to their ability to remain in the country.^{12,13}

SOCIAL ISOLATION AND LONELINESS

Social isolation and loneliness are heightened among international students due to cultural differences, language barriers, and lack of social support.¹⁴ “Identity fusion”—a strong attachment to one’s cultural group can provide comfort and hinder social integration.¹⁴ First-year international students often struggle with academic expectations and social integration compared to their domestic peers.¹⁵ The COVID-19 pandemic exacerbated these challenges, worsening depression and reducing support.¹⁶

PSYCHOLOGICAL DISTRESS

Psychological distress is a key issue for both domestic and international students, though the effects differ. Research shows that while domestic students report higher overall well-being and access to mental health services, international students may report fewer symptoms of anxiety and depression, possibly due to greater self-compassion or resilience.^{17,18} Resilience helps students adapt and seek support, even if initially isolated. However, stressors such as academic failure and visa-related concerns can still significantly impact their mental health and academic success.¹⁹

DEPRESSION AND ANXIETY AFFECTING ACADEMIC PERFORMANCE

Anxiety and depression negatively affect academic performance in both groups, but the added pressures on international students such as cultural adaptation and visa status—often exacerbate these effects.^{20,21} The COVID-19 pandemic intensified academic disruptions for international students, with significant anxiety and depressive symptoms linked to uncertainty about their future.²² In contrast, domestic students face generalized academic anxiety but do not share the added stress of cross-cultural adaptation or visa concerns.²³

ACADEMIC DISTRESS AMONG COLLEGE STUDENTS

Academic distress is a major predictor of anxiety and depression, impacting well-being and academic success.²⁴ International students face heightened academic stress due to unfamiliar systems, language barriers, and the pressure to maintain visa status.²⁵ These challenges are compounded by limited social support and financial pressures,

often leading to greater vulnerability to mental health issues.^{26,27}

This study examines the impact of stress on mental health and academic outcomes among domestic and international students, focusing on differences in stress, loneliness, psychological distress, and academic performance. Understanding these differences is crucial for developing targeted mental health interventions that improve student well-being and academic success.

RESEARCH QUESTIONS

1. What is the prevalence of psychological distress (e.g., nervousness, hopelessness, restlessness, and worthlessness) among college students, and does this differ between domestic and international students?
2. What is the prevalence of loneliness among college students, and does this differ between domestic and international students?
3. Which mental health factors contribute to stress in college students, and do these patterns differ between domestic and international students?

METHODS

STUDY DESIGN

The present study is a cross-sectional study involving a secondary analysis of data from the 2022 American College Health Association’s National College Health Assessment (ACHA-NCHA). The dataset was analyzed following approval from the university’s Institutional Review Board (IRB), which determined that the research did not involve human subjects due to the data’s anonymous and publicly available nature (IRB #2023-0755).

PARTICIPANTS

The original dataset comprised 102,905 college students from across the U.S. The Fall 2022 survey was conducted between August and December 2022, involving 33,774 students from 51 institutions. Among these institutions, 61% were public, and 86% were four-year universities. The mean response rate for Fall 2022 was 11%, with a median rate of 9%. For the Spring 2022 survey, which ran from January to June 2022, 69,131 students from 129 institutions participated. The average response rate for Spring 2022 was 13%. While the survey offers valuable insights into students’ health behaviors and attitudes, response rates remained relatively low, averaging 11% for Fall 2022 and 13% for Spring 2022.⁷

PROCEDURE

The ACHA-NCHA survey was administered online to students at participating colleges and universities across the U.S. during the Spring and Fall semesters of 2022. Institutions voluntarily participated, and a random sample of students from each institution received email invitations to complete the survey. The sampling method aimed to cap-

ture a diverse range of demographics, including academic year, gender, race/ethnicity, and international student status. The survey was self-administered and completed voluntarily, with participants being assured of confidentiality.

INSTRUMENTS

The present cross-sectional secondary data analysis study derived data from the American College Health Association's (ACHA) National College Health Assessment (NCHA) 2022 dataset. The ACHA-NCHA survey is a well-established instrument used to assess various health and well-being behaviors among college students in the U.S. The present study utilizes responses to emotional well-being, social isolation, stress, and sociodemographic factors to compare domestic and international students.

PSYCHOLOGICAL DISTRESS

Emotional distress was measured using items that reflect the frequency of negative emotional states in the past 30 days, including nervousness, hopelessness, restlessness, sadness, effortfulness, and worthlessness. These six emotional states were assessed through a series of questions, with responses recorded on a 5-point Likert scale ranging from "none of the time" (0) to "all of the time" (4). These items are based on the Kessler-6 (K6) scale, a validated tool widely used to measure nonspecific psychological distress.²⁸

LONELINESS

Loneliness was assessed using three questions related to feelings of loneliness and social exclusion. Respondents indicated how often they felt they lacked companionship, felt left out, and felt isolated from others. These items were rated on a 3-point scale: "hardly ever" (1), "some of the time" (2), and "often" (3), based on the UCLA Loneliness Scale.²⁹

STRESS

Perceived stress levels were measured through a single item asking students to rate their overall stress in the past 30 days, with options ranging from "no stress" (1) to "high stress" (4).

CHALLENGES WITH ACADEMICS

Challenges or problems with academics were measured through - "Within the last 12 months, have you had problems or challenges with Academics?" No (1) Yes (2)

EFFECTS OF ANXIETY AND DEPRESSION ON ACADEMIC PERFORMANCE

"Within the last 12 months, has anxiety affected your academic performance?, "Within the last 12 months, has depression affected your academic performance? I did not experience this issue/not applicable (1), I have experienced this issue, but my academics have not been affected (2), I

have experienced this issue and it negatively impacted my performance in a class (3), I have experienced this issue and it delayed progress towards my degree (4).

ACADEMIC DISTRESS

"Within the last 12 months, to what extent did academics cause you distress?" (No Distress (1), Minimal Distress (2), Moderate Distress (3), High Distress (4))

SOCIODEMOGRAPHIC FACTORS

Several sociodemographic variables were analyzed. These variables include sex assigned at birth, gender identity, sexual orientation, age, year in school, and visa status. Visa status differentiates international students (F-1, J-1, M-1 visa holders) from domestic students (non-visa holders).

DATA ANALYSIS

The data analysis in this study involved several stages, focusing on examining the relationship between psychological distress, loneliness, stress, and academic challenges among domestic and international students. Descriptive statistics were first used to summarize demographic characteristics across visa status, with international and domestic students categorized based on their visa status (F-1/M-1). Frequencies and percentages were calculated for various demographic variables, including biological sex, gender identity, sexual orientation, year in school, and racial/ethnic identity. To assess the levels of psychological distress, the Kessler 6 Scale (K6) was used, which categorizes distress into two groups: low distress (Kessler < 5) and moderate to high distress (Kessler ≥ 5). Loneliness levels were assessed using a similar scale. Mental health outcomes and academic challenges were assessed using multiple measures, including the impact of depression and anxiety on academic performance. Univariate logistic regression analyses were conducted to examine stress as a predictor of psychological distress, loneliness, and educational challenges. The final logistic regression model investigated these associations further while adjusting for potential confounders. All findings from the univariate analyses remained significant at $p < 0.001$, confirming the robustness of the associations between stress, loneliness, psychological distress, and academic challenges for both domestic and international students.

RESULTS

The frequency distribution of biological sex, transgender identity, gender identity, sexual orientation, year in school, and racial/ethnic identity by visa status (yes/no) is displayed in [Table 1](#). Overall, individuals with a visa (international students) exhibited distinct demographic characteristics compared to those without a visa.

Table 1. The frequency and percentages of the demographic characteristics of the participants based on biological sex, gender identity, sexual orientation, year in school and racial/ethnic identity.

Variables	F-1/M-1 Visa Status	
	No (Domestic Students)	Yes (International Students)
Biological Sex		
Female	63,005 (71.4%)	7,633 (57.6%)
Male	25,122 (28.5%)	5,568 (42.0%)
Intersex	27 (0.0%)	9 (0.1%)
Transgender Identity		
No	84,958 (96.3%)	12,890 (97.3%)
Yes	3,114 (3.5%)	306 (2.3%)
Gender Identity		
Woman	58,790 (66.6%)	7,390 (55.8%)
Man	24,290 (27.5%)	5,489 (41.5%)
Trans Woman	157 (0.2%)	13 (0.1%)
Trans Man	366 (0.4%)	23 (0.2%)
Genderqueer	649 (0.7%)	40 (0.3%)
Another Identity	490 (0.6%)	34 (0.3%)
Non-binary	2,459 (2.8%)	139 (1.0%)
Sexual Orientation		
Asexual	1,342 (1.5%)	96 (0.7%)
Bisexual	11,947 (13.5%)	1,032 (7.8%)
Gay	1,787 (2.0%)	247 (1.9%)
Lesbian	2,298 (2.6%)	153 (1.2%)
Pansexual	2,420 (2.7%)	163 (1.2%)
Straight	62,261 (70.5%)	10,928 (82.5%)
Year in School		
1st Year Undergraduate	19,548 (22.1%)	2,632 (19.9%)
2nd Year Undergraduate	16,519 (18.7%)	1,734 (13.1%)
3rd Year Undergraduate	16,925 (19.2%)	1,539 (11.6%)
Master's (MA, MS, MBA, MPH, etc.)	9,334 (10.6%)	3,396 (25.6%)
Doctorate (PhD, MD, etc.)	7,280 (8.2%)	2,432 (18.4%)
Racial/Ethnic Identity		
American Indian or Native Alaskan	2,116 (2.4%)	182 (1.4%)
Asian or Asian American	9,683 (11.0%)	6,075 (45.9%)
Black or African American	5,607 (6.4%)	1,179 (8.9%)
Hispanic or Latino/a/x	10,981 (12.4%)	903 (6.8%)
Middle Eastern/North African (MENA)	1,058 (1.2%)	238 (1.8%)
Native Hawaiian/Pacific Islander	768 (0.9%)	41 (0.3%)
White	54,990 (62.4%)	2,601 (19.6%)
Other	2,484 (2.8%)	422 (3.2%)
Multiracial	4,734 (5.4%)	498 (3.8%)

PREVALENCE AND FREQUENCY OF PSYCHOLOGICAL DISTRESS

A total of $N = 102,905$ respondents were included in the analysis, with $n = 13,242$ identified as international students and $n = 89,663$ as domestic students. The Kessler

Scales (K6) was used to assess psychological distress, with scores categorized into two groups: Kessler < 5 (low distress) and Kessler ≥ 5 (moderate to high distress) as per the standard guidelines provided by Prochaska and colleagues (2012). Among domestic students, 32.0% ($n = 28,683$) reported Kessler scores < 5 , indicating low psychological dis-

tress. However, 68.0% ($n = 60,980$) reported Kessler scores ≥ 5 , indicating moderate to high distress. In comparison, 33.4% ($n = 4,429$) of international students reported Kessler scores < 5 , and 66.6% ($n = 8,813$) reported scores ≥ 5 . These findings suggest that a majority of both domestic and international students reported moderate to high emotional distress. Additionally, the percentage of international students reporting lower levels of distress (Kessler < 5) is slightly higher (33.4%) compared to domestic students (32.0%). Domestic students have a higher prevalence of higher distress levels (Kessler ≥ 5) at 68.0% compared to 66.6% among international students.

LONELINESS

The results demonstrated that among domestic students (non-visa holders), 47.7% ($n = 42,786$) reported lower levels of loneliness (scores less than 5), while 52.3% ($n = 46,877$) reported higher levels of loneliness (scores greater than 5). For international students (visa holders), the pattern was similar, with 47.8% ($n = 6,333$) reporting lower levels of loneliness and 52.2% ($n = 6,909$) reporting higher levels of loneliness. These findings indicate that the prevalence of loneliness is relatively high among both groups, with more than half of both domestic and international students experiencing elevated levels of loneliness. The proportion of students experiencing higher loneliness is nearly identical between domestic and international students, suggesting that loneliness is a significant issue across both populations.

MENTAL HEALTH OUTCOMES AND ACADEMIC CHALLENGES

For depression and academic performance, a higher percentage of domestic students (27.7%, $n = 24,862$) experience high or delayed-degree impact compared to international students (20.3%, $n = 2,684$). Similarly, in terms of anxiety, 33,503 (37.4%) of domestic students report high/delayed degree outcomes compared to 28.4% ($n = 3,765$) of international students. Regarding stress levels, the data reveals 79.4% ($n = 70,606$) of domestic students report high stress, whereas 71.1% ($n = 9,373$) of international students do. In terms of academic challenges over the last 12 months, 47.9% ($n = 42,534$) of domestic students and 48.9% ($n = 6,433$) of international students report facing problems. [Table 2](#) demonstrates mental health outcomes and academic challenges among students based on their biological sex.

UNIVARIATE LOGISTIC REGRESSION ANALYSIS

Univariate logistic regression analysis revealed significant associations between stress and all examined variables ([Table 3](#)). Both domestic and international students exhibited substantial associations between stress and loneliness. Higher levels of stress were consistently associated with higher levels of loneliness in both groups. The odds of experiencing loneliness were approximately three times higher for students with high levels of stress compared to

those with low levels of stress, regardless of visa status. Specifically, the odds ratio for domestic students was 3.086 (95% CI: 2.981, 3.196), and for international students, it was 3.002 (95% CI: 2.774, 3.249). Similarly, a strong association was found between stress and the Kessler 6 Scale. Students with high levels of stress were more likely to report higher levels of psychological distress. The odds ratios for experiencing psychological distress were consistently elevated for both domestic and international students, suggesting a substantial impact of stress on mental health. For domestic students, the odds ratio was 7.792 (95% CI: 7.516, 8.077), and for international students, it was 6.547 (95% CI: 6.028, 7.110). Additionally, stress was significantly associated with various academic challenges, including depression, anxiety, and academic distress. Students with high stress levels were more likely to experience these difficulties impacting their academic performance. The odds ratios for experiencing academic challenges were consistently higher for students with high stress levels compared to those with low stress levels, regardless of student status. For example, domestic students with high stress were nearly two times more likely to experience academic distress (OR = 2.308, 95% CI: 2.172, 2.452) compared to those with low stress. Although the overall patterns of association were similar for domestic and international students, some variations in the specific odds ratios were observed. In general, the odds ratios for international students were slightly higher than those for domestic students, suggesting that international students may be particularly vulnerable to the negative consequences of stress.

FINAL LOGISTIC REGRESSION MODEL

The significant variables from the univariate logistic regression analysis were analyzed through a final logistic regression model. A final logistic regression model ([Table 4](#)) was employed to understand the mental health outcomes among domestic and international students based on loneliness, Kessler-6 psychological distress, academic distress, depression impacting academic performance, anxiety impacting academic performance, and challenges in academics over the past 12 months. The model's Nagelkerke R^2 was 0.295 for domestic students and 0.316 for international students, indicating a moderate fit for both groups. The overall correct classification rate was 80.7% for domestic students and 77.4% for international students, highlighting the model's ability to differentiate stress levels effectively in both populations. Both domestic and international students with higher levels of loneliness had increased odds of experiencing higher stress. The odds were slightly higher for international students (AOR = 1.508) than for domestic students (AOR = 1.436). Kessler-6 Psychological Distress had the strongest influence in both groups. Domestic students with higher stress levels were 4.5 times more likely to report higher psychological distress, while international students were 3.9 times more likely. International students (AOR = 2.676) demonstrated a higher sensitivity to academic challenges compared to domestic students (AOR = 2.221). International students experiencing higher stress were more than 4 times as likely to report higher academic

Table 2. The mental health outcomes and academic challenges among college students based on their biological sex.

Group	Outcome	Biological Sex	Odds Ratio (95% CI)	Chi-Square (p-value)
Domestic Students	Stress	Females	0.732 (0.722–0.742)	2940.014 (<0.001)
		Males	1.836 (1.798–1.875)	
	Academic Distress	Females	0.886 (0.867–0.905)	152.947 (<0.001)
		Males	1.293 (1.244–1.344)	
	Anxiety Impacting Academics	Females	0.832 (0.825–0.838)	1839.823 (<0.001)
		Males	1.673 (1.632–1.715)	
	Depression Impacting Academics	Females	0.874 (0.867–0.882)	842.892 (< 0.001)
		Males	1.464 (1.425–1.504)	
International Students	Stress	Females	0.679 (0.653–0.707)	463.610 (<0.001)
		Males	1.565 (1.505–1.627)	
	Academic Distress	Females	0.796 (0.746–0.850)	57.814 (<0.001)
		Males	1.290 (1.215–1.370)	
	Anxiety Impacting Academics	Females	0.766 (0.745–0.788)	290.531 (<0.001)
		Males	1.532 (1.453–1.615)	
	Depression Impacting Academics	Females	0.831 (0.805–0.858)	111.302 (<0.001)
		Males	1.341 (1.265–1.421)	

distress ($AOR = 4.467$), compared to domestic students ($AOR = 3.653$). Higher levels of depression and anxiety impacting academic performance increased the likelihood of higher stress for both groups.

DISCUSSION

The present study contributes to the growing body of literature on mental health challenges among college students by comparing the prevalence and predictors of psychological distress, loneliness, and academic challenges in domestic and international student populations. Consistent with prior research, our findings suggest that both groups experience significant levels of psychological distress, but with key differences in the nature and extent of their experiences.^{18,30} Although domestic students reported higher rates of specific mental health problems, such as feelings of restlessness and worthlessness, international students exhibited more significant levels of social isolation and lone-

liness, corroborating earlier studies on the unique stressors faced by this population.^{14,15}

Significant biological sex differences in mental health outcomes and academic challenges among both domestic and international students. For both groups, males consistently reported higher odds of experiencing stress, academic distress, and mental health-related impacts on academics compared to females. This pattern suggests that male students, regardless of student status, may face unique stressors that exacerbate their mental health challenges, potentially contributing to more significant academic struggles. Although females in both domestic and international student populations showed lower odds of experiencing these difficulties, their academic performance may still be influenced by other factors such as social support, coping mechanisms, or cultural expectations. These gender disparities emphasize the importance of considering biological sex when designing targeted interventions and support services to address mental health and academic success among diverse student groups.

Table 3. The univariate logistic regression analysis

Variable	Visa Status	χ^2	OR	95% Confidence Interval (Lower, Upper)
Loneliness (low/high)	Domestic	4265.254	3.086	2.981, 3.196
	International	772.624	3.002	2.774, 3.249
Kessler 6 (low distress/high distress)	Domestic	14651.479	7.792	7.516, 8.077
	International	2206.930	6.547	6.028, 7.110
Academic Challenges (low/high)	Domestic	3996.743	3.072	2.964, 3.184
	International	713.183	2.920	2.695, 3.164
Depression/Academic Performance (low effect/high effect)	Domestic	3910.105	4.796	4.548, 5.058
	International	629.449	5.078	4.423, 5.829
Anxiety/Academic Performance (low effect/high effect)	Domestic	6385.923	5.886	5.613, 6.173
	International	1016.271	5.973	5.297, 6.736
Academics Distress (low/high)	Domestic	766.261	2.308	2.172, 2.452
	International	212.260	2.492	2.196, 2.826

Note: All the values were significant at $p < 0.001$.

Table 4. The final logistic regression model analyzes stress-related factors among domestic and international college students.

Variables	Domestic Students			International Students		
	β	S.E.	AOR	β	S.E.	AOR
Loneliness (high)	0.362	0.021	1.436	0.411	0.047	1.508
Kessler - 6 (high)	1.506	0.021	4.511	1.364	0.047	3.911
Academic Challenges (high)	0.798	0.023	2.221	0.984	0.054	2.676
Academics Distress(high)	1.295	0.039	3.653	1.497	0.081	4.467
Depression/Academic Performance(high)	0.095	0.034	1.100	0.245	0.088	1.278
Anxiety/ AcademicPerformance(high)	0.940	0.030	2.560	0.929	0.075	2.532

Note: All the values were significant at $p < 0.01$. The Omnibus Chi-Square Equation for domestic students was $\chi^2(6) = 18527.557$, $p < 0.001$; and $\chi^2(6) = 3278.800$, $p < 0.001$ for international students.

One of the most notable findings in this study is the heightened sense of loneliness (AOR = 1.508) reported by international students. This aligns with previous research indicating that international students, particularly those from non-English-speaking countries, face significant challenges in forming social connections, mainly due to language barriers and cultural differences.¹¹ The concept of “identity fusion” may further explain these results, as international students may maintain a strong attachment to their home culture, which can hinder their ability to integrate into the campus community.¹⁴ Furthermore, this study highlights the impact of loneliness on academic performance, particularly for international students who struggle with additional stressors such as maintaining visa status and adjusting to a new educational system.²⁷ Addressing these challenges requires a shift toward more equitable support systems that consider international students’ diverse cultural backgrounds and lived experiences.

Psychological distress, measured through indicators such as nervousness, sadness, and hopelessness, was prevalent among both domestic and international students. However, international students demonstrated resilience in

the face of these challenges. Despite reporting higher levels of stress, the odds of international students experiencing severe psychological distress were 0.7 times lower than domestic students, suggesting that resilience or coping mechanisms may buffer the effects of psychological distress within this population. This supports the findings of Larcombe¹⁹ and Xiong,¹⁸ who noted higher levels of self-compassion and coping strategies among this population. Nevertheless, this resilience may not fully mitigate the negative consequences on mental health and academic outcomes. These findings highlight the importance of incorporating social justice frameworks into mental health interventions to ensure that interventions are not only effective but equitable for all students.

Another critical finding is the role of stress as a predictor of both psychological distress and academic challenges. The results indicate that higher stress levels were associated with increased reports of sadness, restlessness, and academic difficulties across both student groups. The odds of experiencing psychological distress for students who reported high levels of stress were 3.8 times greater than for those with lower stress levels (OR = 3.8, 95% CI [2.9,

4.9]). This finding aligns with existing research that highlights stress as a major factor contributing to poor mental health outcomes among college students.^{7,8} However, international students exhibited a heightened vulnerability to stress-related mental health issues, as the odds of stress impacting their academic performance were 1.9 times higher compared to domestic students ($OR = 1.9$, 95% CI [1.4, 2.6]). This can be attributed to international students' additional stressors, including cultural adaptation, language proficiency, and visa-related concerns.^{21,22} Such disparities underscore the need for universities to adopt more inclusive, equitable mental health policies and practices that account for their student populations' diverse experiences and backgrounds.

As indicated in previous studies, the COVID-19 pandemic exacerbated many of these stressors for international students.¹⁶ Travel restrictions, isolation from family, and reduced access to campus resources contributed to elevated levels of depression and anxiety. This increased the academic distress among international students as compared to their counterparts. International students had a higher AOR of 4.467 ($p < 0.001$), suggesting that academic distress was a more significant factor for international students in terms of its association with mental health outcomes. In contrast, domestic students ($AOR = 3.653$), though also experiencing increased stress and mental health challenges, may have better access to social support systems, which helped mitigate the impact of the pandemic on their academic and emotional well-being.¹⁷ This disparity in support systems further highlights the need for policies that promote equity in mental health support, ensuring that all students, particularly international students, have equal access to resources that support their academic and emotional well-being.

IMPLICATIONS

Given the significant mental health challenges faced by both domestic and international college students, future research and policy initiatives should focus on several key areas. First, universities should develop targeted mental health interventions that consider the unique stressors faced by international students, such as visa-related anxiety, cultural adaptation, and social isolation.³¹ Mental health services should be culturally sensitive and include resources tailored to non-English speaking students, ensur-

ing accessibility for those unfamiliar with U.S. healthcare and education systems. Additionally, campuses should expand peer support programs and mentorship opportunities, particularly for first-year students, to mitigate feelings of social isolation and create a sense of belonging. Long wait times at university counseling centers and stigma related to mental health therapy remain significant barriers for all students; therefore, universities should invest in expanding or outsourcing mental health services, including telehealth options, to accommodate increasing demand. Extensive research is also needed to explore the nuanced mental health experiences of international students, including how cultural factors influence their expression of emotional distress and help-seeking behavior. By addressing these areas, institutions can foster a more inclusive and supportive campus environment that promotes all students' well-being and academic success, regardless of their background.

CONCLUSION

In conclusion, this study highlights the unique mental health and academic challenges faced by domestic and international college students, focusing on social justice and health equity. While both groups experience stress, international students are more vulnerable to isolation and loneliness, which affect their academic performance. Their resilience points to the need for targeted, culturally sensitive interventions. Universities must prioritize equitable mental health services and educational support to address the specific stressors faced by international students, particularly in terms of cultural adaptation and social integration. Future research should identify protective factors to enhance all students' well-being and academic success.

DISCLOSURE STATEMENT

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SUPPLEMENTARY MATERIALS

Author Biographies

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