

Acculturative Stress, Mental Health, and Academic Engagement of Rural Young Adult Hispanic Immigrants

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Abstract— Hispanics are the largest minority population in the United States today, and the numbers are rising. However, so is the amount of discrimination toward the Hispanic population, and this discrimination often takes a toll on minorities. The present study examined the levels of acculturative stress and its effect on internalizing symptoms (anxiety and depression) and academic engagement. Participants included 209 rural area college students, which were comprised of 140 Caucasian Americans, 50 Hispanics, and 19 students from other racial backgrounds (African American, American Indian/Alaskan Native, Asian, Native Hawaiian, Other). We compiled various scales measuring academic engagement, depression, anxiety, and academic engagement into an online survey. Results indicated that Hispanics experience significant amounts of acculturative stress, and this acculturative stress was a significant predictor of anxiety and depression for these students. Additionally, Hispanic students showed a significantly higher level of depression than their Caucasian counterparts. Lastly, the study found that academic engagement was significantly predicted by depression for Hispanic and Caucasian students and acculturative stress for all students overall. These findings suggest that Hispanic immigrant students in rural areas are vulnerable to mental health problems and would benefit from institutional efforts to support wellness and academic engagement.

Keywords— *Hispanic immigrants; acculturative stress; mental health; academic engagement; college students; rural*

INTRODUCTION

The United States (U.S.) is increasingly becoming a nation of mixed nationalities due to the large influx of immigrants. The number of immigrants in the U.S. is growing, and Latinos are one of the fastest growing immigrant populations. According to the U.S. Census Bureau, the Hispanic population is projected to be 27.5% of the total U.S. population by the year 2060, making it the largest minority

group in the country (Vespa et al., 2020). Many immigrants entering the U.S. have negative experiences while adapting to their new lives. According to Torres et al. (2018), immigrants today are experiencing an increase in negative experiences such as discrimination, fear, limited access to services, poverty, and separation of families because of the current sociopolitical situation in the U.S. Ford-Paz et al. (2019) reported that since the presidential election in 2016, there has been an increase in harassment such as hate speech, intimidation, and bullying towards people of color. Poor mental health outcomes can increase due to experiences like these. In addition, trauma that occurs in the home country and during migration heightens the risk of poor mental health (Torres et al., 2018).

The negative experiences immigrants encounter in the home country, during migration, and in the U.S. can be especially detrimental in young adulthood. According to Cohen and Kassan (2017), young adulthood is viewed as an important developmental stage where individuals develop worldviews and identities. This period in one's life is characterized by many challenges, such as financial difficulties, integrating into new systems like college or a workplace, and confusion around cultural identity. These challenges have been associated with anxiety and depression, feelings of alienation, and higher levels of suicidality. Combined with the stress of immigration, Hispanic young adults are at an even greater risk. Current research on mental health in immigrant populations focuses on the effects of ethnic identity, perceived discrimination, and acculturative stress. However, further research is needed to understand the specific mental health needs of rural young adult Hispanic immigrants.

Acculturative Stress

According to Sirin et al. (2013), acculturative stress refers to the stress one experiences as they attempt to assimilate to another culture. This process can be very difficult, and the stress it causes has been found to increase the risk of many

mental health symptoms. The researchers examined the extent to which acculturative stress affected mental health outcomes in a sample of immigrant adolescents of varying ethnicities attending urban high schools. After analyzing the data, they found that changes in acculturative stress levels significantly predicted changes in depressed, anxious, and somatic symptoms over time. Maiya et al. (2020) found that in Hispanic college students, acculturative stress was related to greater internalizing mental health symptoms. They also found that these symptoms were related to lower levels of prosocial behavior. Acculturative stress can have a stronger effect on young adults than older adults.

According to Pumariega et al. (2005), many adult immigrants choose marginalization (embracing their origin culture and excluding the host culture) over acculturation because their lack of developmental and cognitive flexibility makes it difficult to make changes such as learning a new language, customs, and values. However, because young adults must face the new host culture in school, work, and social activities, marginalization is not an option and they must acculturate. Yet, parents and families often encourage their children to keep their ethnic culture and are offended as they assimilate to the host culture. Therefore, acculturation can be even more stressful for young adults. Additionally, difficulties with ethnic identity and perceived discrimination can cause an increase in acculturative stress, so it can be argued that examining acculturative stress can shed light on these other aspects that are further discussed below.

Ethnic Identity

Ethnic identity is defined by Tummala-Narra (2015) as the degree to which an individual sees their ethnic group either positively or negatively and whether or not they experience a sense of belonging and commitment. Many studies have shown that having a positive ethnic identity correlates with fewer mental health symptoms. Gupta et al. (2014) aimed to examine the effect of ethnic identity on anxious-depressed symptoms in Asian and Latino immigrants in urban high schools. The researchers measured levels of ethnic identity with ethnic collective self-esteem, a construct that measures how worthy one feels in a group, beliefs about the value of the group, beliefs about how others view one's group, and the importance of one's membership in a group to self-concept. For both groups, as ethnic collective self-esteem increased over time, anxious-depressed symptoms decreased.

In a study completed by Tummala-Narra (2015), the effect of ethnic identity on mental health of immigrant adolescents was also investigated. Analyzing information gathered from minority students attending urban high schools, Tummala-Narra measured ethnic identity and its relationship to depression. It was concluded that students with higher ethnic identity reported fewer depressive symptoms. Similarly, Kiang et al. (2006) assessed daily diary entries of Mexican and Chinese adolescents and found that those with more positive feelings toward their ethnic group documented more happiness and less anxiety each day.

A study completed by Brittan et al. (2013) examined the role of ethnic identity affirmation on African American,

Asian American, and Latino college students. The researchers found that ethnic identity affirmation was negatively correlated with anxiety and depressive symptoms significantly for both Asian Americans and Latinos. From these studies, it is evident that feeling positively about one's ethnic group has a large impact on the mental health of minority populations.

Perceived Discrimination

Immigrants in the U.S. face various types of discrimination by institutions and individuals. The amount of discrimination is increasing with the current sociopolitical climate (Ford-Paz et al., 2019). Finch et al. (2000) used information from a survey completed by Mexican adults residing in an urban area. When focusing on individual-level perceived discrimination, they found a clear, positive relationship between perceived discrimination and depressive symptomology.

Tummala-Narra and Claudius (2013) investigated the role of perceived discrimination and depressive symptoms on immigrant adolescents. The study found that there was a positive correlation between depressive symptoms and perceived peer and adult discrimination for only U.S.-born participants. These results suggest that there may be differences in the experiences of U.S.-born and non-U.S. born immigrants. Ríos-Salas and Larson (2015) found that adolescent participants who reported higher levels of perceived discrimination also reported higher levels of depressive symptoms.

When examining the relationship between perceived discrimination and psychiatric disorders, Held and Lee (2017) found that perceived discrimination significantly predicted the presence of a psychiatric disorder (mood disorders, anxiety disorders, substance disorders, and eating disorders) in Hispanic adults. The studies above make it apparent that perceived discrimination has a negative effect on the mental health of immigrants in the U.S.

Academic Engagement

Academic engagement refers to the behaviors of motivation that lead to positive outcomes, like attending and participating during class, actively taking notes, and studying. During college, students become autonomous learners and are able to make more decisions on the level of effort they put into classes (Wu, 2019). High levels of engagement often lead to greater educational success, and the students are more likely to take on challenging tasks (An, 2015)

In a study by completed by Pan et al. (2017), the researchers examined levels of academic engagement in youth high school students who had previously left and then reenrolled in school. The population of the study included students of diverse backgrounds, including a proportion (11.38%) of Hispanic students. They compared the levels of academic engagement to the students' perceived levels of support from parents and teachers and found that perceived social support is positively correlated with academic engagement. Because of prior research completed by Katsiaficas et al. (2013) that found a positive negative relationship between acculturative stress and perceived social

support, it might be possible to see a correlation between acculturative stress and academic engagement.

Resources in Rural Areas

It is clear to see that the variables discussed have the potential to harm the wellbeing of Hispanic immigrants. However, the severity of the impact may be heightened due to the less access to care, poor support systems, and lack of diverse communities often seen in rural areas, which result in worse health outcomes (James et al., 2017). Olson et al. 2018 examine the disparities seen in these communities, stating that 17% of rural counties have no access to mental health services. James et al. (2017) observed the disparities within rural communities by examining the differences in access between racial groups. The researchers found that ethnic minorities in rural areas were more likely report their health as fair or poor (except Asians and Native Hawaiians) and were unable to see a physician in the past year because of the cost, and fewer Hispanics reported having health care coverage than did Caucasian Americans.

Additionally, rural areas are often not the focus of research as it is more difficult to reach participants in these areas. However, rural communities are important to study because they differ greatly from urban areas and between each other as well. Pertinent to the problem at hand is the difference in culture, which is strongly influenced by race. In order to better serve these areas, these differences must be understood (Olson et al., 2018).

The Current Study

Prior research has established a solid foundation for why the study of immigrant mental health is important, and it defines key factors that affect mental health. Levels of ethnic identity have a direct correlation with the amount of perceived discrimination that is reported (Tummala-Narra & Claudius, 2013). Finch et al. (2000) explain that discrimination plays a moderating role on levels of acculturative stress in that experiencing more instances of discrimination leads to higher levels of acculturative stress. The findings from these studies provide strong evidence to indicate that ethnic identity, perceived discrimination, and acculturative stress impact immigrant mental health. However, there are some gaps that should be addressed with further research. For one, only a small number of studies discuss the mental health of young adult immigrants. The studies that have used young adult samples underscore the importance of targeting this population by emphasizing the effect of mental health problems during this critical period on overall life outcomes and the greater risk the circumstances that come with immigration have on young adults' developing mental health. Furthermore, in today's sociopolitical context, this culture group is one of the most discriminated against minority groups in the U.S. (Horowitz et al., 2019). Most relevant studies on Hispanics are sparse and outdated. Many of the studies in this literature review use data that are decades old, and thus it is necessary to perform up-to-date research. Sullivan and Rehm (2005) describe the situation best in their literature review when they claim that research on Hispanic immigrant mental health does not adequately describe the sample populations and does not use consistent operational

definitions and assessment tools, which makes it difficult to compare studies and draw sound conclusions. Finally, an overwhelming majority of research has been collected in urban settings. Although Katsiaficas et al. (2013) make a fair point that developmental risks may interact with the neighborhood and environmental risks are more common in urban settings, further research is needed to understand the effects on smaller immigrant populations that are often seen in rural settings. The seclusion and distant feelings these immigrants feel could very well result in acculturative stress and a lower sense of ethnic identity, and therefore they might present higher internalizing symptoms such as depression and anxiety. Research in rural settings is crucial in order to study the effects of the aforementioned factors on small Hispanic immigrant populations and their mental health.

Hypotheses

The current study sought to measure acculturative stress in rural Hispanic students so that they may be compared to urban area findings and provide support for the following hypotheses: (1) the independent variable, acculturative stress, will have a positive relationship with internalizing mental health symptoms, measured by the independent variables anxiety and depression; (2) Hispanic immigrants (independent variable) will have higher levels of depression and anxiety (dependent variables) than Caucasian Americans, and to add a new variable to the research that has been conducted previously; (3) internalizing mental health symptoms (independent variable) will have a negative relationship with academic engagement (dependent variable). It is expected that in the current study, because previous research has found a positive correlation between academic engagement and perceived social support and a negative correlation between acculturative stress and perceived social support; and (4) acculturative stress (independent variable) will have a negative correlation with academic engagement (dependent variable) (Pan et al., 2017; Katsiaficas et al., 2013).

METHODOLOGY

Participants

The sample for this study consisted of 209 undergraduate students attending a university in the rural North Georgia area (140 Caucasian American, 4 African American, 2 American Indian or Alaska Native, 8 Asian, 1 Native Hawaiian or Pacific Islander, 50 Hispanic or Latino, 1 other). The survey was open to students of all ethnic backgrounds to allow for proper comparison in their experience and to allow the data to be used in further research of other backgrounds. Participation was voluntary and required online consent. Demographic questions were administered to collect information on the participants' biological sex, country of family origin, nativity, primary language, and years of U.S. residence. The age of participants ranged from 18 to 30 years ($M = 19.8$, $SD = 2.3$). Of the total number of participants, 32.1% were male and 67.9% were female. Please see Table.

Table 1
Demographic Characteristics of Participants

	<i>n</i>	<i>%</i>
Gender		
Female	142	67.9
Male	67	32.1
Race		
Caucasian American	140	67.0
African American	4	1.9
American Indian / Alaska Native	2	1.0
Asian	8	3.8
Native Hawaiian	1	0.5
Hispanic/Latino	50	23.9
Other	4	1.9
Nativity of Hispanic Participants		
Native-born	201	96.2
Foreign-born	4	1.9
Generation Status of Native-Born Participants		
First-generation	39	78
Second-generation	11	22

Procedure

Data were collected from an online self-report survey that was available to take over a semester period beginning in March 2020. Students at the university were able to access the self-report survey online through the SONA system, where they would be granted credit for their course if they were enrolled in a course that required research participation. The link to the survey was also sent to various student organizations such as the Latino Student Organization, Multicultural Student Affairs, and the College Assistance Migrant Program in order to gather submissions from a more diverse participant pool.

Measures

Acculturative Stress. Levels of acculturative stress were measured using the 24-item version of the Societal, Attitudinal, Familial, and Environmental (SAFE) scale that asks participants to consider, across their lifetime, whether they agree with statements like, “In looking for a job, I feel that my ethnicity is a limitation,” and, “I don’t feel at home” (Mena et al., 1987). This scale was scored on a 4-point scale ranging from strongly disagree to strongly agree ($\alpha = .90$). The higher the score on this scale, the higher the participant’s acculturative stress levels are.

Internalizing Mental Health Symptoms. Internalizing mental health symptoms were measured with the Center for Epidemiological Studies Depression Scale for Children (CES-DC; Faulstich et. al, 1986) and the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Paget, 1981) because the survey was initially created for high school students. Both the CES-DC and RCMAS have a 4-point scale ranging from strongly disagree to strongly agree (CES-DC $\alpha = .88$; RCMAS $\alpha = .95$). The following are sample items from the 20 item CES-DC: “During the past week, I was bothered by things that don’t usually bother me” and “During the past week, I did not feel like eating, I wasn’t very hungry.” The following are sample items from the 28 item RCMAS: “I worry about what others think about me” and “It is hard for me to get sleep at night.” Higher scores on both scales relate to higher depressive or anxious symptoms, respectively.

Academic Engagement. Academic engagement was measured using the 38-item Behavioral and Emotional Engagement – Student Assessment (Skinner et al., 2009). The scale consists of four subscales: behavioral engagement

(example: “I try hard to do well in school”), emotional engagement (example: “I enjoy learning new things in class”), behavioral disaffection (example: “When I’m in class, my mind wanders”), and emotional disaffection (example: “When I get stuck on something in class, I feel discouraged”). Participants responded to statements on a 4-point scale ranging from strongly disagree to strongly agree (overall academic engagement $\alpha = .92$; behavioral engagement $\alpha = .80$; emotional engagement $\alpha = .85$; behavioral disaffection $\alpha = .803$; emotional disaffection $\alpha = .85$). Higher scores on all subscales related to higher levels of said variable (i.e. a high score on emotional disaffection means higher levels of emotional disaffection). For the overall academic engagement variable, emotional disaffection and behavioral disaffection were reverse coded, so that the final calculation showed the participants level of engagement. Higher scores meant higher levels of academic engagement.

Data analysis plan. To answer the research question, we ran independent samples t-tests to determine any significant differences in acculturative stress between native-born and foreign-born students, first- and second-generation immigrants, and Hispanic and Caucasian students. Because our sample did not have a large enough number of participants other than Hispanics and Caucasians, we chose to run t-tests rather than ANOVAs. For our first hypothesis, to determine whether acculturative stress predicted higher levels of anxiety or depression, we ran a multiple regression analyses. To test hypothesis 2, we ran an independent samples t-tests to determine any significant differences in anxiety and depression for Caucasians and Hispanics. To determine whether there were any correlations or significant predictors among anxiety, depression, academic engagement, and all subscales of academic engagement for our third hypothesis, we ran correlation and regression analyses. Finally, for hypothesis 4, we ran a correlation and regression analysis to determine if academic engagement had any correlations with or was a significant predictor for acculturative stress. Analyses were done for the sample overall and for individual ethnic groups.

RESULTS

Research Question 1

Two hundred and one native-born students and four foreign-born students responded to the survey. Of the native-born students, 39 were first-generation immigrants and 11 were second-generation immigrants. Out of the total sample population, 140 identified as Caucasian American, and 50 identified as Hispanic/Latino.

There was no significant difference between acculturative stress levels in native-born ($M = 1.84$, $SD = 0.48$) and immigrant students ($M = 1.98$, $SD = 0.44$), $t(203) = 0.577$, $p = .565$, $d = 0.306$. There was no significant difference between acculturative stress levels in first- ($M = 2.30$, $SD = 0.48$) or second-generation ($M = 2.12$, $SD = 0.39$) immigrants either, $t(48) = 1.14$, $p = .26$, $d = 0.409$. There was a significant difference in acculturative stress levels between Hispanic students ($M = 2.26$, $SD = 0.46$) and Caucasian American

participants ($M = 1.69$, $SD = 0.41$), $t(188) = 8.329$, $p < .001$, $d = 1.33$.

These results suggest that foreign-born immigrant students may experience the same level of acculturative stress as native-born students. However, these findings could be due to the small sample size of foreign-born immigrants. The results suggest that first- and second-generation immigrants also experience the same levels of acculturative stress, regardless of their generation of immigration. Finally, the results suggest that Hispanic students experience significantly greater levels of acculturative stress than Caucasian Americans.

Additionally, of the 50 student participants who identified as Hispanic, 46 were native-born students ($M = 2.29$, $SD = 0.46$) and four were foreign-born. There was no significant difference found in the levels of acculturative stress these groups experienced, $t(48) = 1.29$, $p = .20$, $d = 0.69$. For this reason, there was no distinction between these two groups made during further analysis. Because of the restricted size and area of the sample, no strong comparisons between rural and urban areas Hispanic immigrants could be made.

Hypothesis 1

In order to determine how levels of acculturative stress predict levels of internalizing mental health symptoms, 50 Hispanic students (anxiety: $M = 2.59$, $SD = 0.51$; acculturative stress: $M = 2.26$, $SD = 0.46$; depression: $M = 2.54$, $SD = 0.49$) and 159 non-Hispanic students (anxiety: $M = 2.43$, $SD = .62$; acculturative stress: $M = 1.72$, $SD = .41$; depression: $M = 2.30$, $SD = .60$) reported their levels of depression and anxiety according to the CES-DC and RCMAS, respectively. Overall, 209 students reported their levels of depression and anxiety (anxiety: $M = 2.47$, $SD = 0.60$; acculturative stress: $M = 1.85$, $SD = 0.48$; depression: $M = 2.35$, $SD = 0.59$).

In model one, acculturative stress levels were regressed on anxiety levels for Hispanic students only. Model one explained a significant proportion of the variance in anxiety levels, $R^2 = .31$, $F(1, 48) = 21.63$, $p < .001$. Acculturative stress was a significant predictor of anxiety, $B = 0.61$, $t(48) = 4.65$, $p < .001$. In model two, acculturative stress levels were regressed on depression levels for Hispanic students only. Model two explained a significant proportion of the variance in depression levels, $R^2 = .27$, $F(1, 48) = 17.4$, $p < .001$. Acculturative stress was a significant predictor of depression, $B = 0.56$, $t(48) = 4.17$, $p < .001$. In model three, acculturative stress levels were regressed on anxiety levels for all students. Model three explained a significant proportion of the variance in anxiety levels, $R^2 = .14$, $F(1, 207) = 32.94$, $p < .001$. Acculturative stress was a significant predictor of anxiety, $B = 0.46$, $t(207) = 0.37$, $p < .001$. In model four, acculturative stress levels were regressed on depression levels for all students. Model four explained a significant proportion of the variance in depression levels, $R^2 = .17$, $F(1, 207) = 41.68$, $p < .001$. Acculturative stress was a significant predictor of depression, $B = 0.50$, $t(207) = 6.46$, $p < .001$.

These results show evidence that acculturative stress is a significant predictor of anxiety and depression for all

students. However, these findings are significantly stronger for Hispanic students.

Hypothesis 2

To test Hypothesis 2, 50 Hispanic students (anxiety: $M = 2.59$, $SD = 0.51$; depression: $M = 2.54$, $SD = 0.49$) and 140 Caucasian American students (anxiety: $M = 2.45$, $SD = 0.62$; depression: $M = 2.32$, $SD = 0.61$) reported their levels of depression and anxiety according to the CES-DC and RCMAS, respectively. There was no significant difference between anxiety levels in Hispanic and Caucasian American samples, $t(188) = 1.36$, $p = .176$, $d = 0.24$. There was a significant difference between depression levels in Hispanic and Caucasian American samples, $t(188) = 2.28$, $p = .02$, $d = 0.49$. Hispanic participants reported higher levels of depression than Caucasian American participants.

Hypothesis 3

Hypothesis 3 sought to evaluate how internalizing mental health symptoms affect levels of academic engagement. To answer this, 140 Caucasian American students and 48 Hispanic students reported their levels of academic engagement according to the 38-item Behavioral and Emotional Engagement – Student Assessment.

For Caucasian Americans, the model which regressed academic engagement ($M = 2.84$, $SD = 0.41$) against depression was the best predictor, $R^2 = .17$, $F(1, 138) = 27.25$, $p < .001$. Depression significantly predicted academic engagement levels, $B = -0.27$, $t(138) = -5.22$, $p < .001$. For Hispanics, the model which regressed academic engagement ($M = 2.85$, $SD = 0.42$) against depression ($M = 2.53$, $SD = 0.51$) was the best predictor, $R^2 = .318$, $F(1, 46) = 21.44$, $p < .001$. Depression significantly predicted academic engagement levels, $B = -0.47$, $t(46) = -4.63$, $p < .001$.

Correlation and regression analyses were also completed on each subscale of academic engagement. When behavioral engagement was examined, no significant models were found for Caucasian Americans ($M = 3.18$, $SD = 0.51$) or Hispanics ($M = 3.16$, $SD = 0.41$). When behavioral disaffection was examined, the model in which it was regressed against anxiety was the best predictor for Caucasian Americans ($M = 2.29$, $SD = 0.56$), $R^2 = .06$, $F(1, 138) = 8.63$, $p = .004$. Anxiety significantly predicted behavioral disaffection levels, $B = 0.22$, $t(138) = 2.94$, $p = .004$. The model in which it was regressed against depression was the best predictor for Hispanics ($M = 2.36$, $SD = 0.55$), $R^2 = .15$, $F(1, 46) = 8.02$, $p = .007$. Depression significantly predicted behavioral disaffection levels, $B = 0.42$, $t(46) = 2.83$, $p = .007$.

As for emotional engagement, the model that regressed it against depression was most significant for Caucasian Americans ($M = 2.91$, $SD = 0.54$), $R^2 = .03$, $F(1, 138) = 4.86$, $p = .029$. Depression significantly predicted emotional engagement levels, $B = -0.16$, $t(138) = -2.20$, $p = .029$. For Hispanics ($M = 2.98$, $SD = 0.44$), the same model was found significant, $R^2 = .32$, $F(1, 46) = 21.14$, $p < .001$. Depression significantly predicted emotional engagement levels, $B = 0.32$, $t(46) = -4.60$, $p < .001$.

Finally, when emotional disaffection was examined, the model in which it was regressed against anxiety was the best predictor for Caucasian Americans ($M = 2.31$, $SD = 0.48$), $R^2 = .30$, $F(1, 138) = 58.54$, $p < .001$. Anxiety significantly predicted emotional disaffection levels, $B = 0.42$, $t(138) = 7.65$, $p < .001$. The model in which it was regressed against depression was the best predictor for Hispanics ($M = 2.24$, $SD = 0.53$), $R^2 = .37$, $F(1, 46) = 27.41$, $p < .001$. Depression significantly predicted emotional disaffection levels, $B = 0.64$, $t(46) = 5.24$, $p < .001$.

These results suggest that levels of depression are a significant predictor of levels of academic engagement for Caucasian Americans and Hispanics. Depression significantly predicts behavioral disaffection, emotional engagement, and emotional disaffection levels for Hispanics. For Caucasian Americans, anxiety significantly predicts behavioral disaffection and emotional disaffection, and depression significantly predicts emotional engagement.

Hypothesis 4

In order to determine the correlation between academic engagement and acculturative stress, levels of academic engagement and acculturative stress from 207 participants (academic engagement: $M = 2.84$, $SD = 0.41$; acculturative stress: $M = 1.84$, $SD = 0.48$) were collected using the 38-item Behavioral and Emotional Engagement – Student Assessment and the 24-item version of the SAFE scale, respectively.

When regressing acculturative stress levels against academic engagement levels for all participants, a significant model was found, $R^2 = .02$, $F(1, 205) = 4.73$, $p = .031$. There was a negative correlation between acculturative stress and academic engagement, $B = -0.13$, $t(205) = -2.17$, $p = .031$. When regressing acculturative stress levels against academic engagement levels for each racial group, only the Asian group showed a significant negative correlation between acculturative stress and academic engagement, $R^2 = .54$, $F(1, 6) = 7.07$, $p = .038$. Acculturative stress was a significant predictor of academic engagement, $B = -0.89$, $t(6) = -2.66$, $p = .038$. The results show a significant negative relationship between academic engagement and acculturative stress for all racial groups overall and for Asians.

DISCUSSION

Guided by previous studies that found acculturative stress to be a significant predictor in mental health symptoms in urban immigrants, the present study aimed to understand the role of acculturative stress on the internalizing mental health symptoms of rural Hispanic young adults, and in what ways these factors affected academic engagement. We found that Hispanic young adults experience a significantly greater level of acculturative stress than Caucasian American young adults.

For Hispanic young adults, higher acculturative stress predicted higher internalizing symptoms. This is in line with the previous research (Maiya et al., 2020; Sirin et al., 2013). Because there is a positive relationship between acculturative stress and both anxiety and depressive symptoms, the current study provides evidence that acculturative stress has the ability

to pose a large threat to the emotional well-being of Hispanic young adults, especially since young adulthood is a sensitive period for development. Additionally, the scarce resources available in rural areas, especially for ethnic minorities, may worsen the issue (Olson et al., 2018).

Unlike previous studies, there was no difference found in acculturative stress levels among Hispanic immigrants, regardless of their generation status (Sirin et al., 2013). This finding suggests that there may be no difference in experience of the acculturation process between generations in rural areas. Further research in rural areas may strengthen this by providing more evidence that there is no difference in generations comparing the acculturation process between generations.

Additionally, results revealed that Hispanic young adults showed greater levels of depression symptoms than Caucasian Americans. This disparity may be impacted by the present rise in discrimination towards Hispanics. These increases in both individual and institutional discrimination can cause even greater stress on an individual during the acculturation process, leading to higher acculturative stress and therefore more internalizing symptoms. However, no significant difference was seen in anxiety symptoms between the two ethnic groups. This could be due to cultural differences in coping with anxiousness.

The significant interactions in our models showed that depression predicted lower levels of academic engagement in Hispanic young adults and Caucasian Americans. However, when we examined the effects in our subscales, we found that the only factor that was predicted by depression for Caucasian Americans was emotional engagement. This could speak to the large role emotional engagement plays in overall academic engagement and might mean that emotions have strong control on behaviors for Caucasian Americans.

Additionally, when examining the subscales, we found that depression levels predicted lower levels of emotional engagement and higher levels of emotional disaffection and behavioral disaffection for Hispanic students. Depression appears to increase both negative emotions and behaviors. Considering that Hispanics show higher levels of depression than their white counterparts, this could have an even larger effect on academic engagement.

Finally, our research found a negative relationship between acculturative stress and academic engagement. Although some may predict that students who continue their education past high school would be more academically engaged than those who did not continue, it is clear that acculturative stress still has an adverse effect on students' academic engagement in college.

Limitations

There are several limitations to this study. The sample of the study comes from a single university in north Georgia. We cannot assume our sample is representative of all rural areas in the U.S. Additionally, our sample only included a small percentage of ethnic minorities, with very few born out of the country, and as such, our findings may have been

constrained. Our small sample size also limited our ability to examine smaller within-group differences, such as country of origin. Additionally, the survey was only available in English, and although classes at the university are taught in the English language, the survey may have been more difficult for students whose first language is not English, leading to confused answers and potentially decreasing the validity of their responses. Lastly, during original planning of the study, we expected the participants of the survey to primarily come from participating high schools. However, due to the lack of high school participation, we unexpectedly had to rely solely on the responses from the university. Because the scales used in the survey were aimed at children, young adults may not have been able to relate to the survey questions as strongly as intended.

Additionally, soon after our survey became available to students, the university transitioned to remote learning due to COVID-19. This experience may have heightened feelings of depression and anxiety in the students, and because classes were now held online asynchronously, this may have also affected the engagement students felt in their classes. We were unable to control for this variable in our study, and it may have affected the results.

Implications

At the university level, these findings can be applied to practices to better the experience of ethnic minority students. The first step is to spread awareness of the issue. Hispanic students who are struggling with mental health may be aware of the feelings they have but are unsure of them, and they may not be able to explain why the feelings are present. Educating the student population on acculturative stress and the effects it has on depression, anxiety, and academic engagement may validate these feelings some students may be experiencing. This is especially important for Hispanic students because mental health is often dismissed in their culture (Weber, 2019). Furthermore, students will then need information for how to get help. Students should be able to receive assistance from their university's student counseling office from clinicians who are aware of ethnic differences. There would be an even greater benefit if they could speak to a clinician who they felt comfortable with, such as a member of a minority group. During this time period, students are beginning the final stages of their academic career, setting and working towards career goals, and establishing important relationships. Because mental disorders have the ability to negatively impact their success in these areas, it is important for universities to assist them with managing mental health symptoms so that students graduate (Patel et al., 2007).

FUTURE RESEARCH

Future research should continue to examine Hispanics in rural areas, perhaps in different political regions (to examine the effect of popular political opinions on the well-being of immigrants) or type of academic institutions (to examine the effect of differing values in education), in order to strengthen the findings of the current study and evaluate the extent to which these results hold across diverse populations, such as those with differing cultural beliefs and values. Increasing the sample size, especially the sample of ethnic minorities, would

be beneficial. Increasing ethnic minority participation would allow researchers to examine immigrants from a greater number of countries of origin, which differ in experiences before and during immigration, exposing some immigrants to a greater amount of trauma and other difficulties than others. Additionally, diversifying country of origin would allow researchers to examine immigrants with differing cultures, who may have varying feelings on mental health and academics. Lastly, sampling more students to create a greater diversity in generation status in the ethnic sample could lead to stronger findings, and within-group differences could be examined.

CONCLUSIONS

The present study addresses acculturative stress in Hispanic immigrant young adults in rural areas, the effect this stress has on internalizing problems in mental health, the difference in these mental health symptoms between Hispanics and Caucasian Americans, and the impact these variables have on academic engagement. This study may have an impact in the field of psychology by helping counselors identify ethnic minority students who would benefit from additional support services. Because Hispanic immigrant young adults in rural areas may have higher rates of internalizing symptoms, schools and colleges can implement new programs that target these individuals and provide assistance to help them through this difficult period in their life. On the societal level, our research may inform efforts to advocate for the mental health of immigrants and allow people to become more accepting and understanding of them, especially in the midst of a difficult sociopolitical context.

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