

**OSTRACISM, BELONGINGNESS, AND ALCOHOL USE:  
COMPARING DIFFERENT RACIAL/ETHNIC GROUPS**

An Undergraduate Research Scholars Thesis

by

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# **ABSTRACT**

Ostracism, Belongingness, and Alcohol Use: Comparing Different Racial/Ethnic Groups

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## **Literature Review**

Research has also shown that the chronic uncertainty about belonging undermines minority individuals' performance (Walton & Cohen, 2007; Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). Such perceived social exclusion, characterized by the feeling of ostracism, is considered a stressful event that produces a negative affect. Ostracism, defined as exclusion by general consent from common privileges or social acceptance, has been shown to be associated with high levels of alcohol use in laboratory settings as well as increasing the likelihood of drinking in the short-term (Armeli, Conner, Cullum, and Tennen, 2010; Bacon & Engerman, 2018). However, research also suggests that social support has a protective role in alcohol and drug use. Dobkin, Civita, Paraherakis, & Gill (2002) found that the rate of dropping out of outpatient substance abuse treatment was higher for those with low social support.

Research on gender and sexual minorities shows that their respective minority stresses are associated with excessive alcohol and drug use (Gonzalez, Gallego, & Bockting, 2017; Corte, Matthews, Stein, & Lee, 2016). This study aims to see if there are any racial differences in the exclusion, inclusion, or alcohol use experienced by the participants

## **Thesis Statement**

The current study aims to examine the association of perceived ostracism and social belongingness with alcohol use in first-year minority students.

## **Theoretical Framework**

The underlying theoretical model of the present study is based on racial minority stress. Minority stress theory [specifically for sexual minorities], according to Dentato (APA, 2012), proposes that “sexual minority health disparities can be explained in large part by stressors induced by a hostile, homophobic culture... may ultimately impact access to care”. The present study examines if minority stress associated with racial/ethnic identities and exclusion are implicated in poorer health outcomes, like problematic alcohol use.

## **Project Description**

Minority populations who struggle with social connectedness are more vulnerable to poor mental and physical health due to the distress. Previous research has shown that ostracism and loneliness predicts distress, which can lead to risky substance use behaviors. In addition, social support has been shown to be associated with decreased substance use. Based on previous research, this study examined the association between ostracism and loneliness and connectedness with alcohol use patterns in first-year students on Texas A&M University campus, including both racial/ethnic majority and minority students. Participants completed study questionnaires online using the Psychology subject pool (SONA).

## **DEDICATION**

This paper, the first of many I will be writing in my academic career, is dedicated to my future counseling psychology PhD degree.

## **ACKNOWLEDGMENTS**

I would like to thank Dr. Sherece Fields for providing constant support, encouragement, and guidance for the entire duration of this research project. I also want to extend my gratitude to Dr. Adrienne Carter-Sowell for taking the time to help me incorporate her research expertise on ostracism.

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Finally, thanks to my mother and father for their unwavering encouragement and to my friends for feeding me intermittently.

## **KEY WORDS**

NWIS      Non-White-Identifying Students

WIS      White-Identifying Students

## INTRODUCTION

Many a time, engaging in risky drinking behaviors, such as binge-drinking, is marketed and perceived as the central tenet of a student's college experience. Movies like *Old School* and *Animal House*, among others, perpetuate such perceptions (Osberg, Billingsley, Eggert, & Insana, 2012) to a wide variety of audiences. In fact, children as young as in seventh grade form strong perceptions of drinking in college (Thombs, Olds, & Ray-Tomasek, 2001). However, such beliefs surrounding drinking in college have been shown to predict students' alcohol consumption and drinking-related problems in various studies (Crawford & Novak, 2006; Osberg, Insana, Eggert, & Billingsley, 2011). Not only do many youths first experiment with alcohol in their college years (Wechsler, Lee, Kuo, & Lee, 2000), but there is also evidence that the first year of college is a critical risk period for problematic alcohol use (Ross & DeJong, 2008). Problematic alcohol use, defined as heavy drinking, or drinking that is accompanied by unpleasant consequences, can have long term and lasting consequences, especially when combined with other stressful events, like social exclusion or discrimination. A longitudinal study conducted on Asian American students revealed that "racial discrimination was indirectly associated with alcohol-related problems 1 year later by way of drinking to cope, such that for those who experienced more discrimination, they engaged in more drinking to cope, which was associated with more alcohol-related problems" (Le & Iwamoto, 2019). These results show how racial/ethnic minority-related stresses could have a role in developing alcohol dependence and problems. Hence, the current study aims to examine the association of perceived ostracism and social support with alcohol use in first-year racial/ethnic minority students.



## **Minority Status Students**

Research conducted on minority student populations has often revealed that factors relating to marginalized identities, such as minority status stress, are associated with poorer overall outcomes. One study conducted on underrepresented minority medical students showed that they “are more vulnerable than their non-minority counterparts... and are more likely to be at risk of delayed graduation or withdrawal” (Dyrbye, Thomas, Eacker, Harper, Massie, Power, & Shanafelt, 2007). Furthermore, Brazeau et al. (2014) identified other factors such as “low social support, stress from major personal life events, academic demands, low-quality learning environments, and harassment or discrimination as contributors to high prevalence of distress” in underrepresented minority medical students. Since the association between distressing events and alcohol use is previously established, individuals of minoritized identities could also be more vulnerable to problematic drinking.

In fact, extensive research on gender and sexual minorities shows that their respective minority stresses are associated with excessive alcohol and drug use (Gonzalez, Gallego, & Bockting, 2017); Corte, Matthews, Stein, & Lee, 2016). While not much research is found on the effects of racial/ethnic minority stresses on such individuals’ alcohol use, much research has been conducted on their perceived exclusion and inclusion. One study revealed how chronic uncertainty about belonging undermines racial/ethnic minority individuals’ performance (Walton & Cohen, 2007). Subsequently Walton and Cohen (2011) also found that a “social-belonging intervention improved the academic performance, self-reported health, and well-being of ethnic minority students over 3 years”. These results suggest that the concern about social belonging is implicated in the inequality between marginalized and non-marginalized groups.

### **Exclusion Factors: Ostracism and Loneliness**

Ostracism is defined as exclusion by general consent from common privileges or social acceptance. Previous research in the field has revealed that ostracism leads to more alcohol usage in laboratory settings as [alcohol] may be reasonably perceived as a valid method of regaining connectedness or coping with distress when ostracism occurs (Bacon & Engerman, 2018). Ostracism is considered a stressful event that produces a negative affect, which Armeli, Conner, Cullum, and Tennen have found to increase the likelihood of drinking in the short-term (2010). Not just drinking as a health-risk behavior, ostracism has also been found to increase engagement in less healthy behaviors (like overeating) and more financially risky behaviors (Baumeister, DeWall, Ciarocco, & Twenge, 2005).

Loneliness, another exclusion factor being looked at by this study, is defined as the quality of being unfrequented and remote. In previous studies, loneliness has been associated with risky drinking in both adults and adolescents. Among adults, chronic loneliness has been found to be associated with avoidant coping strategies, including drinking (Cacioppo et al., 2000; Gonzalez & Skewes, 2013; Hawkey & Cacioppo, 2010). In adolescents, studies have found that lonelier youths are more likely to engage in risk taking behaviors, including alcohol use (Stickley, Koyanagi, Kuposov, Schwab-Stone, & Ruchkin, 2014; Page, & Cole, 2011)

### **Inclusion Factors: Social Support and Social Connectedness**

There is evidence regarding the protective role of social support in substance use. Social support is the perception and actuality that one is cared for, has assistance available from other people, and most popularly, that one is part of a supportive social network. Dobkin, Civita, Paraherakis, & Gill (2002) found that the rate of dropping out of outpatient substance abuse treatment was higher for those with low social support. Furthermore, women who perceived high

levels of emotional social support [in substance use treatments] were less likely to report substance use at 12-month follow-up (Andersen, 2018). Considering that social support has been shown as a protective factor for substance use, including alcohol use, the lack thereof also presents serious health implications. A recent study found that lack of social support in the learning environment, such as college-life, is associated with “depression and aspects of burnout” (Thompson, McBride, Hosford, & Halaas 2016). In summary, some of the most extensive studies of the relationship between social support and substance abuse treatment outcomes have documented the beneficial role of supportive social relationships (Havassy, Wasserman, & Hall, 1995).

Social connectedness, which is the experience of feeling close and connected to others, has been shown to have an inconsistent association with collegiate substance use behaviors. Although inclusive and supportive social relationships serve as protective factors for substance use, alcohol is often used to facilitate social connectedness (Mohr, Armeli, Tennen, Temple, Todd, Clark, & Carney, 2005). Furthermore, the quantity of alcohol consumed is greater among participants “reporting social motives for drinking (i.e., drinking because “it makes social gatherings more fun”) compared to those with coping motives” (O'Hara, Armeli, & Tennen, 2015).

Therefore, the current study aims to examine the association of perceived ostracism and social isolation/connectedness with alcohol use in first-year minority students. We hypothesized that, in comparison to white majority students, racial/ethnic minority status students would engage in higher levels of alcohol use by the way of experiencing higher levels of perceived social exclusion, i.e. ostracism and loneliness, and lower levels of perceived social inclusion, i.e. social support and social connectedness.

## SECTION I

### METHOD

#### Participants

This current study consisted of 116 adults with a median age of 19, with 83 (71.6%) female and 33 (28.4%) male participants. All participants were first year Texas A&M students. The participants were predominantly white ( $N = 73$ , 62.9%), but also included individuals who identified as Hispanic ( $N = 25$ , 21.6%), Black ( $N = 2$ , 1.7%), Asian ( $N = 7$ , 6.0%), and Other ( $N = 9$ , 7.8%). Due to the limited number of students representing different racial/ethnic groups in the sample, we compared White-Identifying Students (WIS;  $N = 73$ ) and Non-White-Identifying Students (NWIS;  $N = 43$ ). Participants were recruited via the SONA Psychology subject pool, and were provided with 1 SONA credit for their participation.

#### Procedures

Prior to participating in the study, the participants filled out a SONA prescreen survey that asked them multiple questions regarding their demographic information. The questions asked the subject pool their “Year in School” through the options “First”, “Second”, “Third”, or “Fourth or more”; “Gender Identity” through the options “Male”, “Female”, or “Other”; “Sexual Orientation” through the options “Straight or Heterosexual”, “Lesbian, Gay, or Homosexual”, “Bisexual”, “Uncertain”, or “Other”; “Race/ethnicity” through the options “White or Caucasian”, “Black or African American”, “Hispanic or Latinx”, “East Asian”, “South Asian or Desi American”, “Southeast Asian”, “Native American”, “Hawaiin or Pacific Islander”, “Biracial”, “Multiracial”, or “Other”; and their international student status through the question “Are you an international student?”, where the answer options were “Yes”, “No”, or “Prefer not to say”.

Since the exclusion criteria for the current study was “Year in School”, only the participants who chose the answer choice “First” were recruited into the sample.

Once the participants were recruited, they were administered a multiple-part questionnaire that asked for more of their demographic information, specifically their “Classification” through the options “Freshman”, “Sophomore”, “Junior”, or “Senior”; “Age” as a free-response question; and their “first-generation Aggie (Texas A&M student) status” through the options “Yes” or “No”. Lastly, participants completed all study measures. Finally, the participants answered some additional questions regarding their first year student experience. The questions were as follows: “Since you have been here at Texas A&M University, have you faced an incident where you felt isolated? If yes, please describe it”; “Did you use to drink before coming to this University?” through the options “Yes”, “No”, or “Prefer not to say”; “How has your drinking changed since you came here?” through the options “Gotten more heavy”, “Gotten less heavy”, “Stayed about the same”, or “Not applicable”; “Who do you usually drink with?” through the options “close friends”, “family”, “acquaintances”, “mixed groups of mostly close friends and acquaintances”, “mixed group of mostly acquaintances and strangers”, “strangers only”, or “alone”; and “Where do you usually drink?” through the options “at your house”, “at someone else’s house”, “parties”, “bars”, “restaurants”, or “other”

## **Measures**

### *Revised UCLA Loneliness Scale (Russell, Pelau, & Cutrona, 1980)*

The UCLA loneliness scale is a 20 question, self-report measure designed to measure one’s subjective feelings of loneliness or social isolation. Items are on a 4-point scale, where 1 = Never and 4 = Often. This scale is revised from the original UCLA Loneliness Scale to include reverse-scored items, like “I feel part of a group of friends”, and more simplistic language, like

changing “How often do you feel that you lack companionship?” to “I lack companionship”. Higher total scores reflect higher amounts of perceived loneliness.

*Minority Student Stress Scale (MSSS; Smedley, Myers, & Harrell, 1993)*

The MSSS is a 37 question, self-report measure designed to measure one’s minority-related stresses. The items are rated on a 6-point scale from (0) does not apply at all to (6) extremely stressful. The MSSS items reflect minority-specific stressors (for example, "Attitudes/treatment of faculty towards students of my race"), as well as commonplace student stresses that are “compounded by a students' racial/ethnic or social class background” (for example, "being the first from my family to attend college”). Chronbach's alpha values ranged from 0.76 to 0.93. Higher scores on the scale indicated higher stress experiences due to one’s minority status.

*Alcohol Use Disorders Identification Test (AUDIT; Saunders, et al., 1993)*

The AUDIT is a 10-item screening tool developed by the World Health Organization (WHO) to assess alcohol consumption, drinking behaviors, and alcohol-related problems. The items are scored on a scale of 0 to 4, where higher cumulative scores indicate more problematic alcohol use. The AUDIT enquires about the three key domains of alcohol use: alcohol intake, potential dependence on alcohol, and experience of alcohol-related harm. Having been validated several times, AUDIT has a high face validity and internal reliability.

*Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988)*

The MSPSS is a 12-item inventory that measures subjectively assessed social support. Each item is scored from (1) Very Strongly Disagree to (7) Very Strongly Agree, where the items are divided into factor groups relating to the source of the social support, namely family

(for example, “My family really tries to help me”), friends (for example, “My friends really try to help me”), or significant other (for example, “There is a special person in my life who cares about my feelings”). The scale has high reliability (Chronbach’s alpha was 0.88) and construct validity when correlated with variables like anxiety and depression. The higher cumulative scores indicate higher levels of one’s perceived social support.

*Social Connectedness Scale - Revised (SCS; Lee, Draper, & Lee, 2001)*

The MSPSS is a 20-item questionnaire that measures subjectively assessed social connectedness. The revision was made from an 8-item scale to a 20-item scale to eliminate response bias by adding 10 positively worded statements (for example, “I feel close to people”) and 2 negatively worded statements (for example, “I feel like an outsider”) to the 8 negatively worded original items. The scale is scored from (1) strongly disagree to (6) strongly agree, where higher total scores after reverse-scoring indicate higher levels of one’s perceived social connectedness.

*Ostracism Experiences Scale (OES; Carter-Sowell, 2010)*

The OES is an 8-item scale that measures one’s subjective perceptions of ostracism. The scale consists of questions representing two factors, ignoring (for example, “In general, others treat me as if I am invisible”) and excluding (for example, “In general, others leave me out of their group”). Each question is scored from (1) hardly ever to (7) almost always, where higher scores indicate higher levels of one’s perceived ostracism.

### **Statistical Analysis**

All analyses were performed using SPSS 22.0. Demographic characteristics were compared using one-way ANOVAs for continuous variables and Chi-square for categorical variables. Pearson correlations were performed to examine associations between study variables.

Outcomes from the measures of ostracism, loneliness, social connectedness, minority stress, and social support were compared using separate between subject two-way ANOVAs. First generation status and minority status were the grouping variables. Significant effects were further explored using LSD post hoc analyses.



## SECTION II

### RESULTS

#### Correlation Analyses

Alcohol use was only correlated with minority stress ( $r = -.185$ ) and social support ( $r = -.185$ ) in the full sample. See Table 1 for correlations between study dependent variables. When examining correlations within participants who were in the NWIS group, alcohol use was not correlated with any study variables. However, for the same group, ostracism was positively correlated with loneliness ( $r = 0.50, p < 0.001$ ), negatively correlated with social support ( $r = -0.41, p < 0.001$ ) and connectedness ( $r = -0.80, p < 0.001$ ). However, no association seemed to exist between exclusion/ inclusion factors and alcohol use or minority status stress (see Table 2).

Table 1. Correlations among variables for the entire sample ( $N = 116$ )

Variable	1	2	3	4	5	6
1. Loneliness	—					
2. Ostracism	0.57**	—				
3. Social Support	-0.45*	-0.35**	—			
4. Connectedness	-0.81**	-0.73**	0.50**	—		
5. Alcohol use	0.01	-0.01	-0.19	-0.03	—	
6. Minority Stress	0.06	0.26**	-0.07	-0.15	-0.19*	—

Note: \* $p < 0.05$ , \*\* $p < 0.001$

Table 2. Correlations among variables for Non-White Identifying Students

Variable	1	2	3	4	5	6
1. Loneliness	—					
2. Ostracism	0.50**	—				
3. Social Support	-0.42*	-0.41**	—			
4. Connectedness	-0.79**	-0.80**	0.46**	—		
5. Alcohol use	0.03	-0.15	-0.17	0.11	—	
6. Minority Stress	-0.10	0.18	0.03	-0.09	-0.22	—

Note: \* $p < 0.05$ , \*\* $p < 0.001$

### Group Differences

No significant main effects or interaction effects were found between groups (first generation status vs minority status) for loneliness, social support, connectedness, or ostracism. There was no significant interaction between minority status and first generation status for the minority stress ( $F = 2.105, p = .15$ ). However, in the NWIS group, first generation TAMU students reported significantly more minority stress ( $M = 33.11, SD = 32.77$ ) than non-first generation TAMU students ( $M = 15.73, SD = 15.91$ ; see Figure 1). In addition, students reporting minority status reported significantly more minority stress ( $M = 47.40, SD = 33.99$ ) than non-minority students ( $M = 15.18, SD = 17.38$ ; see Figure 2).

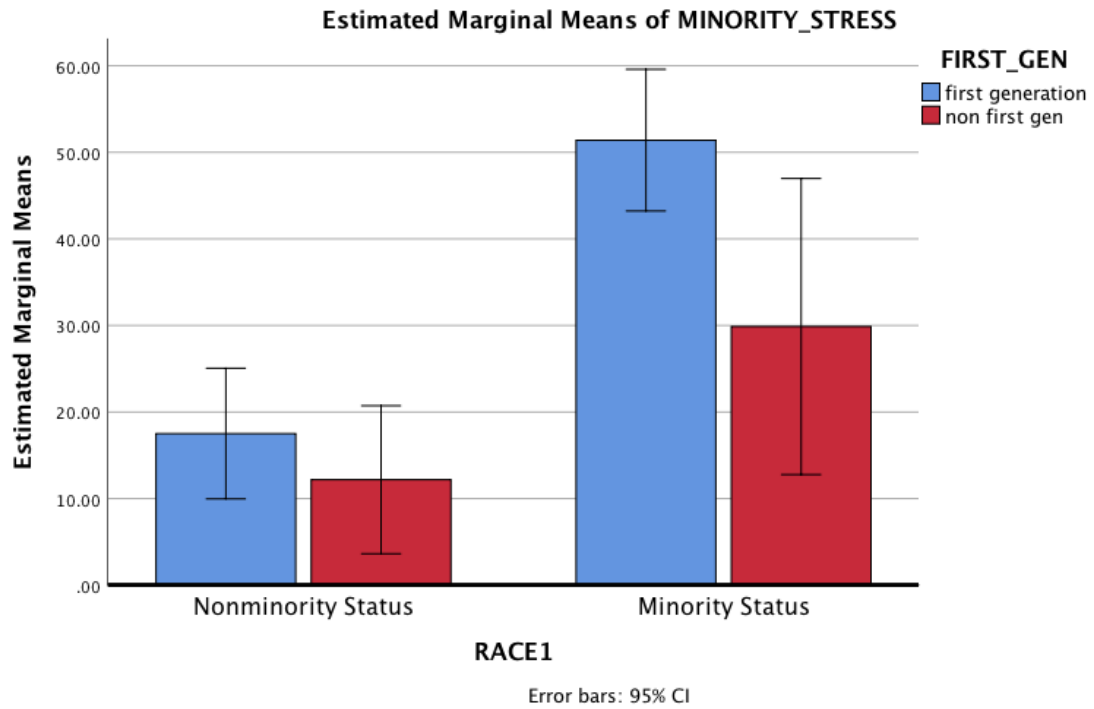


Figure 1. Interaction between minority status and first generation status on minority stress

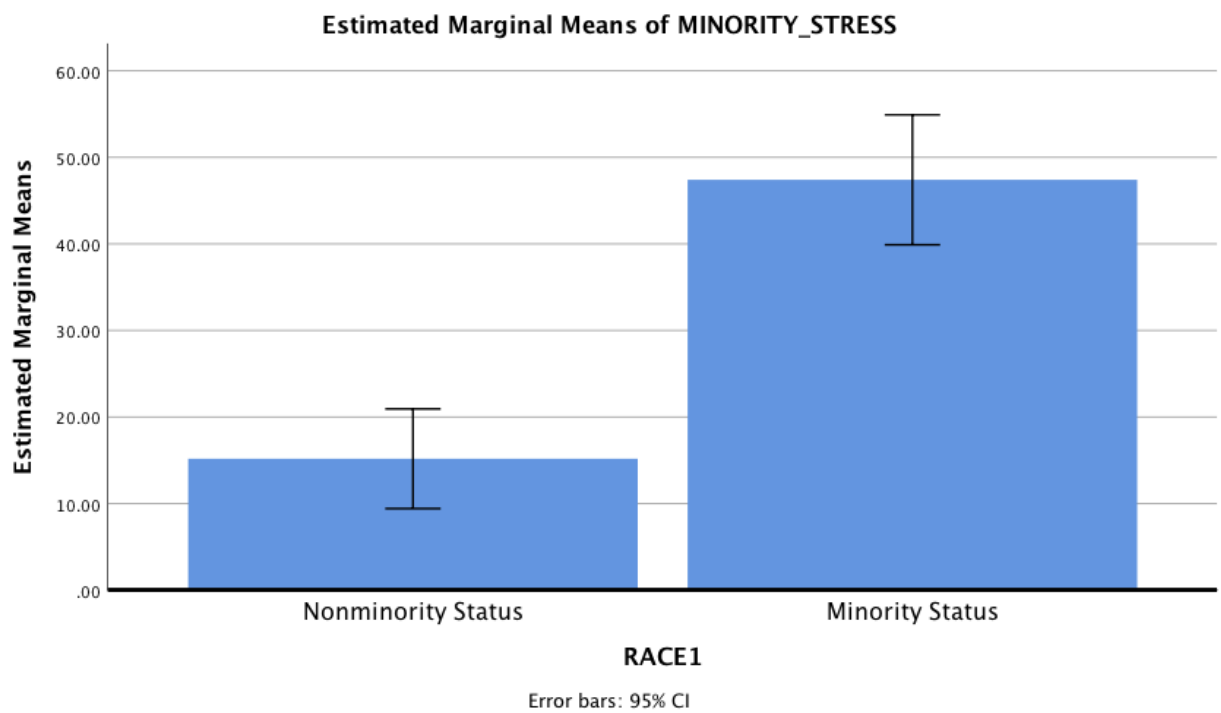


Figure 2. Group differences between minority and non-minority students on minority stress

No significant main effects or interaction effects were found between groups (minority status and alcohol risk status) for loneliness, social support, connectedness, or ostracism. There was no significant interaction between minority status and alcohol risk status for the minority stress ( $F = 1.598, p = .21$ ). However, NWIS participants reported significantly more minority stress ( $M = 47.40, SD = 33.99$ ) than WIS participants ( $M = 15.18, SD = 17.38$ ). No group differences were seen for alcohol risk group on minority stress.

## SECTION III

### DISCUSSION

#### **Current Findings**

Previous studies in the field of substance use in minoritized populations have focused on gender and sexual minorities (Walton & Cohen, 2007, 2011). However, this study helps address the implications of exclusion and inclusion factors toward alcohol use experienced by a racially diverse sample. Participants in the NWIS group in the current study experienced significantly higher minority stress than their white counterparts on campus. Furthermore, in the NWIS group, first generation TAMU students reported experiencing significantly more minority stress than their non-first generation NWIS counterparts. These findings imply how even in the non-white group, first generation minority students may be even more vulnerable to unfavorable minority-stress related outcomes.

Although these effects were not significant, the participants in this group (NWIS) also experienced, on average, higher levels of perceived ostracism and loneliness, and lower levels of perceived social support and social connectedness on the TAMU campus as compared to their white counterparts. Furthermore, in the Pearson's correlations performed on the NWIS data, it was seen that their levels of perceived ostracism were positively correlated to their levels of perceived loneliness ( $p < 0.001$ ) and negatively to their levels of reported social support and social connectedness ( $p$ 's  $< 0.001$ ). Thus, participants of the minoritized group (NWIS) experienced cumulative effects of exclusion on campus.

Although there is evidence to believe that higher levels of exclusion are directly associated with more problematic alcohol use (Armeli, Conner, Cullum, & Tennen, 2010;

Cacioppo et al., 2000; Gonzalez & Skewes, 2013; Hawkey & Cacioppo, 2010; Stickley, Koyanagi, Kuposov, Schwab-Stone, & Ruchkin, 2014; Page, & Cole, 2011), there was no correlation found between any exclusion or inclusion factors and alcohol use. Furthermore, there was no significant difference between the amount of alcohol consumed by participants of WIS and NWIS groups.

Finally, the levels of minority stress experienced by participants of the NWIS group was not correlated to their level of alcohol use. This result could have been observed due to several factors, however, the role of social connectedness may have had a part to play in it. The literature review conducted for the present study indicated that the role of social connectedness was inconsistent and nuanced in predicting alcohol use. On one hand, social support serves as a protective factor for alcohol use, and on the other, certain youth social groups are implicated in facilitating problematic alcohol use. Since it was observed that the participants in the NWIS group experienced slightly lower social connectedness levels than the ones in the WIS group, the NWIS participants could have less opportunities to drink in a social setting. Although the role of social connectedness is not more examined in the present study, future researchers may benefit from including it in their analyses.

### **Limitations and Future Directions**

With the majority of the sample being white (62.9%), female (71.6%), and young (median age 19), the results of the analysis are not generalizable. Furthermore, the limited sample size ( $N = 116$ ) did not have enough participants representing racial/ethnic groups like Black/African American ( $N = 2$ ), Asian ( $N = 7$ ), Native American ( $N = 0$ ), making the data further less generalizable for a study looking at interracial differences in alcohol use.

One unexpected outcome of the analysis was that the overall AUDIT scores of all the participants were low, suggesting that the participants reported not engaging in problematic drinking. There could be several reasons for this, including the fact that most participants were under the legal drinking age, i.e., 21 and thus may have not had easy access to purchasing alcoholic beverages. Furthermore, response bias may have reduced the accuracy of the self-report measure (AUDIT), since it relates to problematic alcohol use.

While this study was an exploratory one, it has tremendous scope in future research. The same study could be administered in several different ways. It could be administered to a larger, more racially representative demographic and to a sample of upperclassmen students who have easy access to alcohol. A longitudinal study of incoming racial minority students in identity-specific transition programs could be conducted to see if social support could predict better outcomes in the future in terms of health and academics. The implications of exclusion on racial/ethnic minority people's substance use patterns do not seem to be widely studied, and have immense potential to be researched in the future.

## **CONCLUSION**

In conclusion, the statistical analyses of the current study indicate that participants of a minoritized racial/ethnic identity, especially first generation TAMU students, experience significantly higher minority stress in comparison to their white and non-white, non-first generation counterparts. Furthermore, their experience of ostracism is directly related to that of loneliness and inversely related to their perceived social support and connectedness. Although the hypothesis, that the NWIS, or racial/ethnic minority participants, would have riskier drinking by the way of higher levels of exclusion, was not supported, further research should be conducted to control for the aforementioned errors.



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