“Mixed” Drinking Motivations: A Comparison of Majority, Multiracial, and Minority College Students

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Abstract
Social exclusion is associated with substance use, but the specific link between majority and minority racial group membership and substance use is unknown. We examined how social exclusion among racial majority (White), Multiracial, and racial minority (Native American, Latino, Asian, and Black) college students relates to self-reported alcohol use and motivations. Using the AlcoholEdu for College™ survey, Study 1a reports five factors related to motives for initiating or inhibiting alcohol use. Study 1b analyzes majority, Multiracial, and minority college students’ comparative endorsement of these motivations. Study 2 compares these factors with established belonging scales using a separate undergraduate sample. White, Multiracial, Native American, and Latino students displayed the highest proportion of problematic alcohol use. White students endorsed belonging-based drinking motivations, while Multiracial and Asian students endorsed motivations similar to both majority and minority groups. Native American, Latino, and Black students endorsed abstaining motivations more than other groups.

Keywords
alcohol, racial minorities, social exclusion, college drinking

U.S. college students drink alcohol at clinically high levels (e.g., Substance Abuse and Mental Health Services Administration [SAMHSA], 2014; White & Swartzwelder, 2009) that result in negative alcohol-related consequences (ARCs) including sexual assault and academic failure. However, the influence of student-level characteristics such as racial group membership and the potentially different drinking motivations is not well understood (e.g., Chartier & Caetano, 2010; Terry-McElrath & Patrick, 2018).

Extending this work on drinking motivations to specific minority groups is important since people from stigmatized backgrounds who face more discrimination often turn to substances like alcohol for coping (Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; Keyes, Hatzenbuehler, & Hasin, 2011). Within collegiate environments, minority groups report experiencing more discrimination and lower levels of belonging compared to majority groups (Johnson et al., 2007; Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003), suggesting different motivations for alcohol use based on racial group membership.

However, despite discrimination rate differences, the highest rates of alcohol use among adolescents and young adults have been observed for White, Multiracial (those who belong to more than one racial group), Native American, and Latino individuals (e.g., Chavez & Sanchez, 2010; Chen, Balan, & Price, 2012; Goings, Butler-Bente, McGovern, & Howard, 2016; O’Malley & Johnston, 2002; Terry-McElrath & Patrick, 2018). Additionally, other work demonstrates that 4-year college attendance is positively associated with heavy alcohol use for White students but inversely related for both Black and Asian students (Paschall, Bersamin, & Flewelling, 2005). Thus, as social experiences such as party-centered lifestyles and specific student group memberships (i.e., fraternities) are also known as strong predictors of college drinking (Wechsler, Dowdall, Davenport, & Castillo, 1995), it remains unclear how racial membership and social motivations may dually affect motivations for alcohol consumption during college.
Past work has focused more on a student’s likelihood of drinking rather than pinpointing the specific motivations that may differentially predict alcohol use in college. The college transition period is associated with increases in stress and mental health symptoms, in addition to increases in alcohol use and ARCs (e.g., Cooke, Bewick, Barkham, Bradley, & Audin, 2006; Gall, Evans, & Bellerose, 2000; Lovecchio, Wyatt, & DeJong, 2010). This is likely due to experiencing more threats to one’s social belonging, which represents a fundamental human need (Baumeister & Leary, 1995). Importantly, exclusion is not only a painful experience, but it also leads to higher rates of substance abuse (Gibbons et al., 2004). Knowing racial group membership is directly associated with varying rates of social exclusion (Mulia, Ye, Zemore, & Greenfield, 2008), we investigate social concerns as a potential additional pathway that may be differentially related to alcohol use for monoracial majority, Multiracial, and monoracial minority college students. These pathways linking belonging and social exclusion with drinking behaviors have yet to be broadly tested due to the need of large sample sizes (Wechsler et al., 1995). However, the AlcoholEdu survey, including data from thousands of college students, allows us to assess underrepresented groups.

Moreover, this data set also provides a unique opportunity to add to the limited health literature surrounding Multiracial populations (Colby & Ortmann, 2015; Jones & Bullock, 2012). Multiracial people often face higher levels of social exclusion compared to their monoracial minority peers (e.g., Sanchez & Bonam, 2009; Shih & Sanchez, 2005) which might predict a unique socially motivated pathway for alcohol use in line with past work. Similarly, Native Americans also report high rates of discrimination as the most underrepresented minority group in the United States (Hurtado & Ruiz, 2012; Whitbeck, Chen, Hoyt, & Adams, 2004) and have historically been a group with high rates of alcohol abuse (e.g., Spear, Longshore, McCaffrey, & Ellickson, 2005; Szlemko, Wood, & Thurman, 2006). This suggests that both personal and past experiences with alcohol may be more strongly associated with alcohol use for those populations.

In contrast, White individuals report the highest inclusion levels due to being majority and high status group members (Johnson et al., 2007; Martin, Trego, & Nakayama, 2010; Reid & Radhakrishnan, 2003; Swim et al., 2003). Thus, we would predict external social pressures, such as fitting in with one’s set of friends, to more strongly motivate drinking for this racial group. Based on limited past work, we would expect Black and Asian students to show lower drinking rates compared to White, Multiracial, Native American, and Latino students but also predict that variations in social belonging could be a factor for these racial minority groups as well.

Current Studies

Three studies aim to pinpoint some psychological motivations for alcohol use for majority and minority students. Study 1a explored the latent factors underlying the motivational items included in the AlcoholEdu survey. Study 1b compared White, Multiracial, Native American, Latino, Asian, and Black students from the AlcoholEdu data set on their respective drinking motivations. Study 2 finally examined the relationship between these identified factors and social belonging with a subsequently collected diverse sample of undergraduate students.

Study 1a—Factor Analysis for Drinking Motivations

Since the AlcoholEdu items assessing drinking motivations are not from a validated measure (e.g., Cooper, 1994), Study 1a explores the items for classifying psychological constructs. Analyses were completed using SPSS 26 (IBM Corp., Armonk, NY).

Participants

All data came from AlcoholEdu for College, an interactive web-based alcohol-prevention program for college students (e.g., Lovecchio et al., 2010; Wyatt, DeJong, & Dixon, 2013). In previous years of the survey, the racial demographic options were limited (e.g., no “Biracial/Multiracial” or “select all that apply” option). However, 2016–2017 marked the first time that AlcoholEdu permitted students to select more than one race. The options presented were American Indian or Alaskan Native, Asian, Black or African American, Hispanic or Latino/a, Native Hawaiian or Pacific Islander, White/Caucasian, Not Listed, and Other (free-response).

All groups were first identified through automated coding of the initial demographic racial endorsement. Next, free response entries were sorted using the online program Open-Refine, which identified additional monoracial and Multiracial individuals. Responses that could not be clearly classified as a race (e.g., “American,” “Christian,” “tan”) were excluded. Responses that reflected unreliable respondents were also excluded (see Supplemental Material). Considering typical neurological development and previous work using this data set, all students over 24 years were excluded (Giedd et al., 1999; Gogtay et al., 2004; Tupler et al., 2017).

After these exclusions, 410,079 first-year undergraduate students (Modeage = 18) from 421 public and private universities representing 47 U.S. states were included. Of participating schools, 78.9% of students completed the survey before they matriculated on campus for the fall 2016 semester. This final sample included 252,356 White, 34,574 Multiracial, 2,452 Native American, 33,648 Hispanic/Latino, 44,646 Asian, and 36,056 Black students (Modeages = 18; Table 1). Of the Multiracial students, 80.8% were part-White (one of their racial identities was White), 18% were multi-minority (none of their racial identities were White), and 1.2% were undetermined (only specified multiracial generally).
Motivations for Drinking Versus Abstaining

Students’ drinking motivations were assessed by the following question and 12 options: How important is each of the following reasons for drinking alcoholic beverages? (e.g., To celebrate, To feel happy). Their motivations for abstaining from drinking were assessed with the following question and 24 options: When you choose not to drink, how important are the following reasons? (e.g., Drinking is against my personal values). All options were rated on a 7-point Likert-type scale (7 = very important).

Method and Results

To identify the main motivational factors for drinking and abstaining behaviors, the items were combined (abstaining items reverse scored), and an EFA (Exploratory Factor Analysis) was used as a data reduction strategy. A principle axis factor extraction using an oblique rotation indicated that five factors accounted for 52.52% of the variance in these Drinking Motivation items (see Supplemental Material for a full explanation of the EFA). Of the five identified factors, two factors regarding motivations to drink and three factors regarding motivations to abstain emerged. For purposes of clarity, these factors are presented in separate tables though they were derived from a single EFA. No items between drinking and abstaining motivations loaded on the same factors.

Item content, factor loadings, and reliability estimates are provided in Tables 2 and 3. The identified factors were labeled based on observed similarity to items from Cooper’s (1994) drinking motivations: (1) Internal Coping drinking motivations; (2) External Conformity drinking motivations; (3) Internal Conformity abstaining motivations; (4) Internal Past abstaining motivations; and (5) External Contextual abstaining motivations.

Discussion

An EFA of the motivational items from the AlcoholEdu survey found five latent factors for drinking motivations. Two latent factors appear related to increased alcohol use—Internal Coping motivation items relate to alleviation of negative mood and External Conformity motivation items involve elevated mood or social rewards. Additionally, three latent factors appear related to abstaining motivations—Internal Conformity motivations relating to internalized social concerns, Internal Past motivations regarding previous history with alcohol use, and External Contextual motivations about temporal concerns (Cooper, 1994; Smith, Abbey, & Scott, 1993).

Study 1b—Racial Group Comparisons

Knowing the AlcoholEdu-specific drinking motivation items (Study 1a), we next explored potential differences in drinking motivations between racial groups. First, we report drinking behaviors by racial group and then we compare racial group endorsement of motivations for drinking and abstaining.
Participants
The same sample from Study 1a is used here.

Measures
Drinker Categories
To assess alcohol frequency and quantity, AlcoholEdu participants self-reported the following: consumption during past year (yes/no), during past 2 weeks (yes/no), and number of daily drinks consumed during the preceding 2 weeks. Based on these responses, students were categorized into five categories: abstainer, nondrinker, moderate drinker, heavy episodic drinker, and problematic drinker (see Supplemental Material for definitions).

Motivations for Drinking and Abstaining
Composite scores for the motivation factors identified in Study 1a were calculated (see Tables 2 and 3). A one-way multivariate analysis of variance was performed to assess differences between groups: (i) White, (ii) Multiracial, (iii) Native American, (iv) Latino, (v) Asian, and (vi) Black on the following dependent variables of motivations: (i) Internal Coping, (ii) External Conformity, (iii) Internal Conformity, (iv) Internal Past, and (v) External Contextual.

Results
Comparison of Drinker Categories by Racial Group
White, Multiracial, Native American, and Latino students in this sample reported the highest rates of heavy and problematic drinking compared to Black and Asian students, $\chi^2 (25, N = 403,682) = 206,442.797, p < .001$ (Figure 1; see Supplemental Material for details).

Comparison of Racial Groups on Drinking and Abstaining Motivations
Levene’s $F$ test revealed that the assumption of homogeneity of variance was not met for each of the motivation variables (see Supplemental Material for full details). Across all five motivation types, participant race had a significant effect on the rating of importance toward both drinking and abstaining.

Table 3. AlcoholEdu Abstaining Motivations.

<table>
<thead>
<tr>
<th>Abstaining Motivation Items</th>
<th>Factor Loadings</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Internal</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>Conformity</td>
<td>Past</td>
</tr>
<tr>
<td></td>
<td>($\alpha = .90$)</td>
<td>($\alpha = .75$)</td>
</tr>
<tr>
<td>Drinking is against my personal values</td>
<td>0.88</td>
<td>.64</td>
</tr>
<tr>
<td>Drinking conflicts with my religious beliefs</td>
<td>0.81</td>
<td>.61</td>
</tr>
<tr>
<td>I’m not old enough to drink legally</td>
<td>0.77</td>
<td>.49</td>
</tr>
<tr>
<td>I don’t like being around others who are drinking</td>
<td>0.62</td>
<td>.54</td>
</tr>
<tr>
<td>I don’t like the taste</td>
<td>0.59</td>
<td>.34</td>
</tr>
<tr>
<td>People I care about would disapprove</td>
<td>0.57</td>
<td>.53</td>
</tr>
<tr>
<td>My friends don’t drink</td>
<td>0.49</td>
<td>.34</td>
</tr>
<tr>
<td>I don’t want the image of a “drinker”</td>
<td>0.48</td>
<td>.52</td>
</tr>
<tr>
<td>I want to fit in with a group I like</td>
<td>0.47</td>
<td>.36</td>
</tr>
<tr>
<td>I don’t like the way I act when drinking</td>
<td>0.43</td>
<td>.52</td>
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<tr>
<td>I am worried about being caught by authorities</td>
<td>0.42</td>
<td>.45</td>
</tr>
<tr>
<td>I am worried about the negative effects on my health</td>
<td>0.36</td>
<td>.55</td>
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<tr>
<td>I’ve had problems with alcohol use in the past</td>
<td>0.86</td>
<td>.66</td>
</tr>
<tr>
<td>I am not able to drink due to a medical condition</td>
<td>0.79</td>
<td>.57</td>
</tr>
<tr>
<td>I’ve decided to cut down</td>
<td>0.70</td>
<td>.55</td>
</tr>
<tr>
<td>Drinking interferes with my athletic activities</td>
<td>0.61</td>
<td>.42</td>
</tr>
<tr>
<td>People in my family have had alcohol problems</td>
<td>0.56</td>
<td>.39</td>
</tr>
<tr>
<td>I have other things to do</td>
<td>0.73</td>
<td>.62</td>
</tr>
<tr>
<td>I don’t want to spend the money</td>
<td>0.72</td>
<td>.55</td>
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<tr>
<td>I’m going to drive later</td>
<td>0.64</td>
<td>.34</td>
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<tr>
<td>I don’t have to drink to have a good time</td>
<td>0.54</td>
<td>.46</td>
</tr>
<tr>
<td>I don’t want to lose control</td>
<td>0.44</td>
<td>.54</td>
</tr>
<tr>
<td>Drinking interferes with my school work</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Alcohol is fattening</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Eigenvalues</td>
<td>8.01</td>
<td>2.00</td>
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<tr>
<td>% of Total variance</td>
<td>23.55</td>
<td>5.89</td>
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</table>

Note. Bolded items indicate the primary factor loading. Dashes indicate that this item did not load on any of the identified factors and was thus excluded from the final analysis. Internal Conformity was the first factor to resolve out of the five total factors. Internal Past was the third, and External Contextual was the fourth.
motivations, $\lambda_{\text{Roy}} = .034, F(5, 237,213) = 1.616.61, p < .001, \eta^2 = .03$. Moreover, all univariate analyses revealed significant effects.

There was a significant main effect of racial group on drinking motivations of Internal Coping, $F(5, 237213) = 521.51, p < .001, \eta^2 = .01$. Games–Howell post hoc analyses were performed to examine individual mean difference comparisons across groups. All post hoc mean comparisons were statistically significant (all $p < .001$) except for the difference between Multiracial and Native American students ($p = .328$) and Native American and Latino students ($p = .106$). Compared to other racial groups, Asian students showed the strongest endorsement for Internal Coping motivations of drinking ($M_{\text{Grand}} = 2.74, M_{\text{Asian}} = 2.97, SD = 1.28, \text{all } p < .001$). Following this group, White students were the second highest in endorsement of this motivation ($M_{\text{White}} = 2.89, SD = 1.27, p < .001$), with Black students ($M_{\text{Black}} = 2.43, SD = 1.26$) showing the lowest endorsement of this drinking motivation ($p < .001$; Table 4; see Supplemental Material for effect sizes and confidence intervals [CIs] of all post hoc test comparisons).

There was a significant main effect of racial group on External Conformity, $F(5, 237213) = 521.51, p < .001, \eta^2 = .02$. All Games–Howell post hoc mean comparisons were statistically significant (all $p < .004$) except for the difference between Latino and Native American students ($p = 1.00$). Results revealed that White students ($M_{\text{White}} = 4.41, SD = 1.45$) endorsed External Conformity motivation for drinking significantly more than other racial groups ($M_{\text{Grand}} = 4.03, \text{all } p < .001$). Subsequently, Multiracial students were the second strongest endorsers of this drinking motivation ($M_{\text{Multiracial}} = 4.21, SD = 1.53, \text{all } p < .001$), followed by Asian students ($M_{\text{Asian}} = 4.13, SD = 1.43, \text{all } p < .001$). All other racial groups were significantly lower than White, Multiracial, and Asian students, and below the grand mean, with Black students endorsing this motivation the least ($\text{all } p < .004$; see Table 4).

There was also a significant main effect of racial group on Internal Conformity abstaining motivations, $F(5, 237213) = 792.239, p < .001, \eta^2 = .03$. All Games–Howell post hoc mean comparisons were statistically significant (all $p < .003$) except for the difference between Latino and Native American students ($p = .44$) and Native American and Multiracial students ($p = .14$). Comparatively, Asian students ($M_{\text{Asian}} = 3.28, SD = 1.25$) showed the strongest endorsement of Internal Conformity motivations ($M_{\text{Grand}} = 2.97$) to abstain from alcohol use ($p < .001$), followed by Black students ($M_{\text{Black}} = 3.05, SD = 1.34, \text{all } p < .02$). All other racial groups were significantly lower than Asian and Black students, and White students rated this abstaining motivation the lowest ($M_{\text{White}} = 2.76, SD = 1.20, \text{all } p < .003$; see Table 5).

![Figure 1](image)

**Figure 1.** AlcoholEdu high-frequency drinker categories by racial group. Figure shows percentages of racial group members that self-report drinking behaviors categorized as “heavy episodic drinker” (i.e., 4–7 drinks for women, 5–9 more for men on a given day over the last 2 weeks) or “problematic drinker” (i.e., 8 or more drinks for women, 10 or more drinks for men on a given day over the last 2 weeks). $^p > .05$. All other between-group differences are significant ($p < .05$, two-tailed).

<table>
<thead>
<tr>
<th>Table 4. AlcoholEdu Drinking Motivations by Racial Group.</th>
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<tbody>
<tr>
<td><strong>Motivation ($M_{\text{Grand}}$)</strong></td>
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<td>-------------------------------------</td>
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<tr>
<td>Internal Coping (2.73)</td>
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<tr>
<td>External Conformity (4.01)</td>
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Note. Drinking Motivation (Internal Coping and External Conformity) by Racial Groups. Mean differences between each racial group are shown. $^p < .05$. $^* p < .01$. $^** p < .001$. Standard error in parenthesis.
Additionally, there was a significant main effect of racial group on Internal Past abstaining motivations $F(5, 237213) = 372.12, p < .001$, $\eta^2 = .01$. All Games–Howell post hoc mean comparisons were statistically significant (all $ps < .04$) except for the difference between Black and Latino students ($p = .77$).

Native American students ($M_{\text{Native American}} = 2.59, SD = 1.57$) endorsed Internal Past motivations ($M_{\text{Grand}} = 2.38$) more than any other racial group (all $ps < .03$). Black ($M_{\text{Black}} = 2.46, SD = 1.48$) and Latino students ($M_{\text{Latino}} = 2.44, SD = 1.44$) were the second highest endorsers of this motivation type (all $ps < .04$). White students endorsed Internal Past abstaining motivations the least ($M_{\text{White}} = 2.16, SD = 1.21, ps < .001$; see Table 5).

Finally, there was also a main effect of racial group on External Context abstaining motivations $F(5, 237213) = 173.45, p < .001$, $\eta^2 = .004$. All Games–Howell post hoc mean comparisons were statistically significant (all $ps < .001$) except for the difference between Latino ($p = 1.00$) and Black and Multiracial students ($p = .78$). Asian ($M_{\text{Asian}} = 4.81, SD = 1.43$) and Latino students ($M_{\text{Latino}} = 4.81, SD = 1.53$) were the strongest endorsers of this abstaining motivation above all other racial groups ($M_{\text{Grand}} = 4.60, all ps < .001$). Native American students endorsed this motivation the least ($M_{\text{Native American}} = 3.96, SD = 1.88, all p’s < .001$; see Table 5).

**Discussion**

In line with previous research, White, Multiracial, Native American, and Latino students self-report the highest frequency of problematic drinking behaviors. When comparing across racial groups, both types of drinking motivations (Internal Coping and External Conformity) were highly endorsed by White students. In particular, White, followed by Multiracial and Asian students, endorsed External Conformity motivations related to eliciting positive social rewards more than other groups. And although Asian students did not report high frequencies of problematic drinking, they did report being motivated by Internal Coping reasons related to regulating negative affect, more than any other group. However, other minority groups (Native American, Latino, and Black) did not endorse either type of drinking motivation as strongly.

Asian students also highly endorsed some motivations for abstaining (Internal Conformity and External Contextual) along with other minority groups. In particular, Native American, followed by Black and Latino, students endorsed Internal Past abstaining motivations more than other groups. This may be reflective of previous problematic drinking behaviors among these two groups, and levels of belonging may also still be a factor.

**Study 2—Motivations and Belonging**

We next explored the proposed link between alcohol use and belonging levels using a separate sample of undergraduates to test whether levels of belonging are associated with the identified factors from Study 1a.

**Participants**

A power analysis indicated that 109 participants would be sufficient to observe a significant bivariate correlation at 90%
power with a medium effect size \((r = .3, \text{ two-tailed } \alpha = .05; \text{ Faul, Erdfelder, Buchner, & Lang, 2009})\). In order to recruit a representationally diverse sample (comparable to the AlcoholEdu data set), 614 undergraduate students \((n \sim 100 \text{ for each of five racial groups})\) completed an online survey about their drinking behaviors and motivations through Qualtrics Panels. Prescreening by Qualtrics excluded the following individuals: older than 24 years \((n = 0)\), not undergraduate students \((n = 8)\), incomplete responses \((n = 79)\), or failed more than one attention check \((n = 7)\). This resulted in a final sample of 520 undergraduates \((20.38\% \text{ White}; 20.0\% \text{ Black}, 19.61\% \text{ Asian}, 20.0\% \text{ Hispanic/Latino}; 20.0\% \text{ Biracial/Multiracial}; 50.4% \text{ female}, 54.6\% \text{ male}, 3.1\% \text{ other gender}; \text{ Mode}_\text{age} = 18–20 \text{ years}, \text{ Mode}_\text{schoolyear} = \text{ Sophomore})\).

**Measurements**

The following measures were randomly presented.

**Motivations**

Participants completed the same AlcoholEdu items outlined in Study 1a (see Tables 1 and 2) using the same scale. Composite scores were calculated based on the factors from Study 1a: motivations for drinking (Internal Coping \(\alpha = .88\), External Conformity \(\alpha = .85\)) and motivations for abstaining (Internal Conformity \(\alpha = .83\), Internal Past \(\alpha = .67\), External Contextual \(\alpha = .70\)). Racial group reliability was as follows: Internal Coping all \(\alpha > .85\), External Conformity all \(\alpha > .79\), Internal Conformity all \(\alpha > .74\), Internal Past all \(\alpha > .60\), External Contextual all \(\alpha > .61\).

**General Belongingness**

Participants completed a 12-item measure of general belonging on a 7-point Likert-type scale \((7 = \text{ strongly agree}; \text{ e.g., } \text{ When I’m with other people, I feel included}; \text{ Malone, Pillow, & Osman, 2012})\). This scale has an established two-factor model with responses loading on acceptance/inclusion \(\alpha = .89\) or exclusion/rejection \(\alpha = .90\). Racial group reliability was as follows: acceptance/inclusion all \(\alpha > .85\) and exclusion/rejection all \(\alpha > .87\).

**Need to Belong**

Participants completed the 10-item measure regarding one’s desire to seek out and maintain enduring interpersonal attachments \((\text{Leary, Kelly, Cottrell, & Schreindorfer, 2013})\). Participants responded using a 5-point Likert-type scale \((5 = \text{ strongly agree})\) to statements such as “I want other people to accept me” \(\alpha = .80\). This measure was reliable for all groups (all \(\alpha > .74\)).

**Sense of Social Fit**

Participants responded to 18 items related to their sense of fit at their respective universities/colleges using a 6-point Likert-type scale \((6 = \text{ strongly agree}, \alpha = .90, \text{ e.g., } \text{ I fit in well at my school}; \text{ Walton & Cohen, 2007})\). This measure was reliable for all groups (all \(\alpha > .84\)).

**Rejection Sensitivity (Race)**

The Rejection Sensitivity–Race measure was developed primarily for Black experiences of rejection but has also been used for Latino groups \((\text{Anglin, Greenspoon, Lighty, & Ellman, 2016})\). Participants completed the 12-item Rejection Sensitivity–Race Questionnaire to measure their reactivity to negative interpersonal experiences due to one’s race \((\text{Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002})\). Participants were given 12 situations (e.g., Imagine you’re driving down the street, and there is a police barricade just ahead. The police officers are randomly pulling people over to check drivers’ licenses and registrations.) followed by two questions. Participants rate how concerned they would feel following the situation using a 6-point Likert-type scale \((6 = \text{ very concerned})\). Next, participants rate how much they expected discrimination on a 6-point Likert-type scale \((6 = \text{ very likely})\). Composite scores were calculated (reverse scoring when needed) such that higher scores indicate a likeliness to expect rejection \(\alpha = .94\). This measure was reliable for all groups (all \(\alpha > .91\)).

**Rejection Sensitivity (Asian)**

Similar to the previous measure, this measure was adapted for Asian participants (e.g., Imagine that you are in lecture, and the professor poses a difficult question for the class. You happen to know the answer and would like to raise your hand; \text{ Chan & Mendoza-Denton, 2008}). We included this for generalizability reasons (overall \(\alpha = .93\), across each racial group all \(\alpha > .88\)).

**Results**

Correlations examined the relationship between the motivations for drinking or abstaining, general belongingness (rejection/exclusion vs. acceptance/inclusion), sense of social fit, and rejection sensitivity (race and Asian adaptation; see Table 6 and Supplemental Material for all results).

**Motivations for Drinking**

Both drinking motivations of External Conformity and Internal Coping were positively related to race-related rejection sensitivity and need to belong. External Conformity was positively correlated with general acceptance/inclusion and social fit, whereas Internal Coping was significantly correlated with general rejection/exclusion and negatively correlated with social fit.

**Motivations for Abstaining**

Internal Conformity was positively correlated with need to belong and also related to general rejection/exclusion. Internal Past motivations were similarly correlated with general
rejection/exclusion as well as social fit but showed no relation with need to belong. External Contextual also showed no relation with need to belong and was positively correlated with general acceptance/inclusion and high social fit.

**Discussion**

Both drinking motivations (Internal Coping and External Conformity) were positively related to one’s need to belong. Drinking motivations related to External Conformity (to celebrate) rather than Internal Coping (to relieve stress) were related to feelings of general acceptance/inclusion and social fit. Conversely, Internal Coping motivations were related to feelings of general rejection/exclusion and a low sense of social fit. Although the current work cannot determine causality between drinking motivations and feelings of acceptance versus rejection, students who more strongly cite External Conformity motivations to drink may experience more social acceptance than those drinking for Internal Coping reasons.

For abstaining motivations, only Internal Conformity was related to one’s need to belong. Similar to the External Conformity drinking motivations discussed above, Internal Conformity abstaining motivations may be driven by social concerns. Those more strongly reporting Internal Past abstaining motivations (decided to cut down) may also experience higher rates of exclusion and lower social fit. However, those citing more External Contextual reasons report experiencing fewer threats to their belonging.

**General Discussion**

The novelty of the present findings stems from our use of one of the largest college alcohol surveys in existence. Our results indicate that drinking rates among monoracial majority, Multiracial, and minority students are influenced by different external and internal social motivations—an issue that has not been addressed and highlights a previously ignored nuance regarding alcohol use. Importantly, these findings suggest that alcohol-related interventions may need to be tailored to specific racial groups.

**Psychological Motivations to Drinking**

Our findings indicate that drinking motivations related to both external social conformity (having a good time with your friends) and internal coping (feeling happy) are correlated with one’s need to belong and may be most applicable to White college students (Bradizza, Reifman, & Barnes, 1999; Vaughan, Corbin, & Fromme, 2009). Here, White students reported the highest frequency of heavy episodic drinking, reflective of previous work suggesting White college students’ sense of belonging is related to their engagement in drinking (Griffin, Bengry-Howell, Hackley, Mistral, & Szmigin, 2009; Hsu & Reid, 2012). Furthermore, White students are more likely to be members of Greek life systems, which are associated with higher levels of drinking (Wechsler et al., 1995).

Similar to White students, Multiracial students report high frequencies of problematic drinking. However, Multiracial students demonstrate some motivations similar to White students but also endorse other motivations more similar to their monoracial minority counterparts. Since the present Multiracial sample is largely part-White, it is likely that many of these Multiracial students navigate among White social circles (although that is not reflected in this data set), such that they may drink to fit into White social circles causing their alcohol motivations to appear similar to White students.

Previous work shows that Asian students, more than White students, demonstrate stronger drinking motivations related to coping and conforming (LaBrie, Lac, Kenney, & Mirza, 2011). Comparably, the current work demonstrates that Asian students endorse coping motivations for drinking. Although this group had one of the lowest rates of problematic drinking patterns, Asian students cite desires to relieve negative internal states rather than gaining social reward when they do choose to drink. However, these results also suggest that Asian students endorse external contextual reasons to abstain from drinking more than other groups, supporting other evidence suggesting Asian individuals take more protective behaviors toward drinking (LaBrie et al., 2011). Although Native American students report some of the highest frequencies of problematic drinking, they endorsed the identified drinking motivations significantly less than other racial groups. Native American students do show comparatively higher endorsement on abstaining motivations related.
to past issues with alcohol. Similarly, both Latino and Black students also reported higher endorsement of internal past abstaining motivations and lower endorsement of the drinking motivations. Thus, the current motivations as measured by AlcoholEdu may not be reflective of all racial/ethnic groups’ experiences with alcohol.

Previous motivational research on alcohol use stipulates that alcohol may also be associated with certain rewards that might either facilitate or quell use (Goldman, Del Boca, & Darkes, 1999). Moreover, individuals develop beliefs from their past experiences (social cognitive theory, Bandura, 1977). This backdrop is consistent with our findings that Native American students endorse past experience motivations for alcohol use, since they represent a population with historically high rates of alcohol use (Evans-Campbell, 2008). Additionally, Cooper, Frone, Russell, and Mudar (1995) shows that motivations to drink function alongside expectations about the possible ARCs (e.g., having fun with friends vs. getting into a fight). Therefore, White students, as the majority group on many college campuses, may hold certain social expectations about their status of belonging and how alcohol use may contribute. Conversely, minority college students who report more threatened belonging (Reid & Radhakrishnan, 2003; Swim et al., 2003) might have different expectations.

In fact, norms are a powerful moderator of alcohol consumption and the size of minority populations on campuses may inform these relationships (LaBrie, Atkins, Neighbors, Mirza, & Larimer, 2012). Many minority students find that their college transition marks their first time in a distinct role as a minority in a predominantly White environment (Alvarez, Blume, Cervantes, & Thomas, 2009) and report lower belonging than White students (Johnson et al., 2007). Thus, differences in drinking motivational endorsement suggest varying group experiences regarding alcohol use.

Implications

The present results suggest the need for college alcohol policies and student wellness efforts to expand their focus to consider racial group membership as it relates to drinking and underscores the need for student health clinicians to increasingly view students’ alcohol use in the context of their racial background. These findings also highlight the importance of recruiting diverse populations for studies of alcohol drinking, as the experiences of one group are clearly not generalizable to other racial groups (Hsu & Reid, 2012; Mulia et al., 2008; Pearlin, Schieman, Fazio, & Meersman, 2005). Importantly this work also shows differences for Multiracial part-White and minority individuals, which serves as a unique test of the role racial group membership may play in shaping alcohol motivations.

Limitations and Future Directions

As with any secondary data analysis, there are a number of limitations related to sampling procedures, operational measures, and statistical inferences. AlcoholEdu only reflects schools that elected to introduce this program. Additionally, the completion of the survey is compulsory for most universities, which may impact response characteristics. Relatedly, the relationships between the AlcoholEdu measures and standardized measures of exclusion are correlational. Although it is not possible to randomly assign students to a particular drinking motivation group, it is clear future work should test more specific motivational measurements.

Overall, effect sizes were small according to Cohen’s (1988) typical descriptions. These effect sizes hint at other potential influences from the college context such as the type of university (public vs. private), family history, and the racial make-up of one’s environment (Beseler, Aharonovich, Keyes, & Hasin, 2008; Kypri & Langley, 2003; Warner, White, & Johnson, 2007). Moreover, these effect sizes may indicate that the different racial groups’ motivations differ by degree, rather than by kind. Thus, it is not the case that White students are motivated by one class of motivations while Multiracial or Native American students are motivated by other categories of motivations.

Finally, the single racial demographic measure was not designed to examine within-group variation. For example, there were no measures of racial phenotypicity or racial identification—two factors that may influence social exclusion. This need also extends to pan-ethnic label use, such as grouping all Asian Americans together as one group which ignores potential ethnicity-specific differences (Chun & Akutsu, 2003). Although past work has not found consistent differences between Multiracial subgroups (Albuja, Sanchez, & Gaither, 2019; Terry-McElrath & Patrick, 2018), there was no Multiracial option/box which is a commonly selected identification (Gaither, 2015; Townsend, Markus, & Bergsieker, 2009).

Conclusions

In sum, evidence of excessive alcohol use is apparent on college campuses nation-wide and imposes real health and safety risks (e.g., Hingson, Zha, & Weitzman, 2009). The present research suggests that the most prolific college-aged alcohol users may differ by degree in their motivations for drinking associated with one’s racial group membership. Knowing that certain minority groups like Black and Latino students are still disproportionately represented at many universities (Ashkenas, Park, & Pearce, 2017), and that belonging has many positive benefits (Murphy & Zirkel, 2015; Walton & Cohen, 2007), researchers aiming to address college drinking must consider racial group and motivational differences.

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