

On Drinking Styles and Race: A Consideration of the Socio-Structural Determinants of Alcohol Use Behavior

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Often missing from the discourse on alcohol use is that “alcohol-related problems among college students” appears to be a euphemism for “white college men” in that students who experience alcohol-related problems disproportionately tend to be white men. An important aspect of promoting social and behavioral change is to understand race-related mechanisms that structure desire for students to engage in alcohol use. This article presents findings based on undergraduate students attending a Midwest university. The current study contributes to the theoretical literature on alcohol use and race. We use logistic regression models which suggest race and attitudes pertaining to race relations matter in predicting non-binge drinking and abstinence behavior.

KEYWORDS African American, alcohol, college students, inequalities, race

INTRODUCTION

For more than a decade, binge drinking among college students has received specific research attention that has documented the increase in alcohol-related deaths and increased rates of alcohol-related problems among U.S. college students. Recent research has indicated that binge drinking is a threat to students at higher education institutions on a national level. The Harvard School of Public Health conducted the National College Alcohol Survey three times between 1993 and 2001 that included more than 100 colleges and universities. These studies revealed that while binge drinking rates remained steady throughout the period (Werch, Pappas, & DiClemente, 2000), there

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has been an increase in binge drinking behavior (Keeling, 2002). White students have been found to engage in excessive alcohol use compared to minority students, who are more likely to abstain or engage in lower levels of alcohol use (Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998). African American students in particular report lower levels of alcohol use in terms of frequency and quantity (Caetano; 1998; Strada & Donohue, 2006). There is an absence of research on the sociological mechanisms and factors that contribute to non-binge drinking and abstinence among youth. Similarly important in promoting social and behavioral change is to understand race-related factors that structure student behavior (e.g. alcohol use). The current study contributes to the theoretical and empirical literature on alcohol use and race by examining potential factors that decrease African American college students' drinking levels.

LITERATURE REVIEW

Mortality data revealed that between 1998 and 2001, deaths of college students rose 6% to 1,700 in 2001 (Hingson et al., 2005). Binge drinking, the term used to describe heavy episodic drinking, is defined as consuming five drinks for men and four drinks for women in a row during one drinking occasion (Wechsler & Nelson, 2001). College students who participate in binge drinking are significantly more susceptible to physical injuries, rape, assault, and poor academic performance. Among college students, binge drinking affects peers negatively via what has been termed "second hand effects." Binge drinking on college campuses has been shown to have physical and mental health consequences on both drinkers and non-drinkers alike; institutions with higher rates of binge drinking have more property crimes and higher rates of sexual assault than institutions with lower rates of binge drinking (Wechsler & Lee, 2002).

Significant increases in the negative effects of alcohol for students who engaged in binge drinking behavior in the past 30 days have been reported. Alcohol-related injuries for students increased from 9.3% in 1993 to 12.8% in 2001. There was also a slight increase in academic and personal problems specifically associated with alcohol use. One in five frequent binge drinkers reported five or more problems related to their alcohol consumption (Wechsler et al., 2002). Frequent binge drinkers are eight times more likely to be injured, fall behind in class work, or miss class than those students who abstain from alcohol (Boulard, 2005; Werch et al., 2000). There is also evidence to support the claim that more than half of students who drink on a regular basis exhibit more indicators of alcohol dependency; one in seventeen students qualifies for a diagnosis of alcohol dependency (Wechsler et al., 2002). Collectively, excessive use of alcohol by college students contributes to approximately 500,000 injuries, 60,000 assaults, and 97,000 rapes annually (National Institute of Health, 2005).

Demographic Characteristics of Alcohol Use Among College Students

The literature consistently demonstrates that excessive alcohol use by college students follow social patterns influenced in particular by race. White students consume larger amounts of alcohol and report more problems associated with their alcohol use than racial minorities: Hispanics, African Americans, and Asians have lower rates of alcohol use and related problems compared to their White counterparts (Cranford et al., 2006; Dowdall et al., 1998; Keeling, 2000). African Americans (16%) for example were the least likely to drink, followed by Asians/Pacific Islanders (23%) in one study (Wechsler et al., 2000). In an examination of 2- and 4-year colleges, Paschall et al. (2005) found that attending a 4-year college increased the likelihood of binge drinking for Whites but decreased the likelihood of heavy alcohol use among African Americans (Paschall et al., 2005). Additionally, African Americans reported having fewer friends who engaged in heavy drinking than Whites (Paschall et al., 2005). Finally, alcohol use at historically Black universities have significantly lower levels of alcohol use (less than half) than universities composed of predominately White students (Meilman et al., 1995).

Although research has shown that race is an important determinant of drinking behavior, there are a limited number of studies that seek to understand the social structural conditions pertaining to race and its implication for drinking behavior. Keeling (2000) suggested that “binge drinking is rooted in the inertia of social and economic forces that reinforce class differences and delineate the dynamics of privilege” (p. 196). Keeling (2000) links the absence of binge drinking among minorities to be equated with surrendering power and status to the dominant group. Similarly, Wallace (1999) posited that race differences in drug and alcohol use could be attributed to both racialized social structural arrangements and racially charged assumptions about African American substance use and abuse. African Americans are more likely to live in disadvantaged communities regardless of their social class. Research indicates that disadvantaged communities are more likely to have drugs and alcohol openly available than in white middle class neighborhoods and any consumption of these substances tends to be more conspicuous and public (Wallace, 1999). For example, there are more retailers selling alcohol at lower costs, more billboard ads for alcohol, and a disproportionate amount of drug dealers openly selling illicit drugs in disadvantaged communities (Alaniz, 1998; Gorman & Speer, 1997; Wallace, 1999). Additionally, African American juveniles are more likely than their White counterparts to have observed the selling of drugs in their neighborhoods, perceive illicit drugs as easy to obtain, and report observing people in their communities becoming high or drunk more often (National Institute of Drug Abuse, 1995). Wallace (1999) hypothesized that the negative consequences

of drug and alcohol use were more apparent in the neighborhoods of African American juveniles; therefore, African Americans may abstain from alcohol use because of experience with first hand consequences of alcohol abuse.

Furthermore, parenting practices of African American families (Sampson & Laub, 1994) have been implicated as a protective factor. African American families provide less opportunity for their children to engage in substance abuse because of the perceived dangerousness and heightened awareness of the formal and informal consequences associated with drug use. Additionally, African American parents may promote abstinence practices to encourage a positive group identity (Thornton et al., 1990). Other researchers theorized that African American and White families may have different social norms surrounding alcohol use. According to Peterson et al. (1994), African American parents drink less than White parents, hold more negative views toward alcohol use, and believe alcohol to be harmful. Similarly, research is beginning to recognize that attitudes about alcohol are strong predictors of use. Individuals with liberal attitudes concerning alcohol and drunkenness are more likely to use alcohol (Caetano & Clark, 1999; Galvin & Caetano, 2003). Caetano and Clark (1999) found that African American and Hispanics have conservative views of alcohol compared to their White counterparts, which may in part explain differences in drinking behavior. Finally, Nasim et al. (2006) found religious beliefs to be an important protective factor against alcohol use for African Americans.

Stemming from a qualitative study on college students, Peralta (2005) found that attitudes, drinking patterns, and drinking experiences differ for African Americans in comparison to their White counterparts. Peralta (2005) reports that African American students believed that the drinking culture of their campus occurred primarily in “white space” (i.e., social locations dominated by Whites) and African American students felt disconnected from this space. Also respondents were found to believe that public safety officials policed African American alcohol use more than White alcohol use, a perception that curtailed African American student drinking. Additionally, as a distinct minority group on campus, African Americans discussed feeling pressure to “represent the race.” By being model students, African Americans avoided contributing to or reinforcing negative race-based stereotypes (e.g. substance-abusing stereotypes).

Prior research has recognized that binge drinking behavior and its negative consequences are disproportionately concentrated among White college students. Therefore, an important aspect in promoting social and behavioral change is to understand race-related correlates that structure the desire for students to engage in alcohol use differently. In the current article, we attempt to test the qualitative findings discussed in Peralta (2005) by subjecting those emergent themes to quantitative analysis. In particular, we hypothesize that African Americans will more likely report having experienced aspects of these race-based mechanisms associated with alcohol

use. We posit that students who are concerned about race-based issues (e.g. expect racism in drunken contexts; expect unequal university sanctions) will have a greater probability of abstaining or engaging in non-binging behavior.

DATA AND METHODS

Data from this study came from a fall 2007 survey of undergraduate students at a midsize Midwestern University. Data were collected using a self-administered anonymous questionnaire distributed to students in classes permitted to be surveyed by instructors in the College of Arts and Sciences. Informed consent was provided and the study was approved by the Institutional Review Board of the authors' home institution. Past research has shown that obtaining data on drug and drinking behavior through self-reporting questionnaires is both reliable and valid (Harrison, 1997; Johnston & O'Malley, 1997). Students 18 years and older were invited to participate in the study. Potential respondents were informed of their rights as study participants and about the voluntary and anonymous nature of the study. In total, 422 students completed the questionnaire.

Of those individuals who reported their demographic characteristics, 161 (38%) were male and 259 (62%) were female. A majority of respondents ($n = 324$; 77%) reported that they were White. Seventy (17%) respondents indicated that they were African American, 10 (2%) were Asian/Pacific Islander, 11 (3%) identified themselves as being "other," and 5 (1%) were Hispanic. According to the Institution Research Department, 13% of the undergraduates enrolled were African American in the fall of 2007. Only African Americans and Whites were included in the current analysis because of insufficient data on other racial and ethnic groups.

The mean age of respondents was between 19 and 20 years old. This mean is slightly younger than the mean age at this particular university (23 years old). These mean age differences may be due to the classes surveyed. A majority of the classes surveyed were large introductory classes, which are more likely to be composed of younger students. Of respondents, 186 (44%) reported that they were freshmen, 106 (25%) were sophomores, 71 (17%) were juniors, and 59 (14%) were seniors. The distribution of respondents in the survey relatively matched the distributed of students at the university in which the study occurred (freshmen = 40%, sophomore = 18%, juniors = 16%, seniors = 20%). Most respondents were full-time students taking more than 13 credit hours ($n = 343$, 81%). Seventy-nine (19%) respondents were taking 12 credit hours or less. A majority of respondents lived with a non-family roommate ($n = 209$, 50%) followed by living with their parents ($n = 121$, 29%). Income was collected for both the individual respondent and their parents. Seventy-five percent ($n = 306$) stated that their income was \$12,000 or less and 103 (25%) had an income level of \$12,001 or above.

Parental income was relatively dispersed (see Table 1). The rates of Greek membership and marriage were relatively low. Only 26 (6%) respondents reported Greek membership and only 14 (3%) respondents were married. However, the low rates of Greek membership were consistent with the low participation rates on campus (1% Greek membership).

Questions from the National College Alcohol Use Survey were incorporated into the questionnaire. To examine alcohol use among college students, we used the standard definition of binge drinking, which is 5 or more drinks for men and 4 or more drinks for women in a single episode over the past 2 weeks (Wechsler et al., 2004; Wechsler & Wuethrich, 2002). This same measurement is used in other national studies such as Monitoring the Future, National College Health Behavior Survey, and the National Household Survey of Drug Abuse. The five–four drink measure was first developed because previous research found that 5 drinks are

TABLE 1 Descriptive Statistics for All Analysis Variables

Variables	Mean	Standard deviation	Range
Dependent Variables			
Frequent binge drinking (0) versus abstinence (1)	0.72	0.45	0–1
Control Variables			
Gender (female = 1)	0.62	0.49	0–1
Age (18 = 18 years, 25 and older = 25 years)	19.88	2.10	18–25
Marital Status (married = 1)	0.06	0.24	0–1
Grade Point Average (D and below = 0, A = 3)	2.15	0.65	0–3
School Year (freshmen = 0, senior = 3)	1.00	1.08	0–3
Living Arrangement (with family members = 1)	0.42	0.49	0–1
Employment (employed = 1)	0.69	0.46	0–1
Credit Hours (5 or less = 0; 16 or more = 5)	3.83	1.12	0–5
Parent Income (less than 15,000 = 0; 75,000 and more = 3)	1.93	1.09	0–3
Personal Income (above 12,001 = 1)*	0.25	0.43	0–1
Independent Variables			
Race (African American = 1)	0.18	0.38	0–1
Race-Relation Questions			
1. Are your Non-European American University peers likely to be criticized for drinking 4 or more drinks in a row in one setting?	1.94	1.87	0–7
2. Are you likely to fear contributing negative stereotypes about your race if you use alcohol with University peers?	0.98	1.68	0–7
3. Are you likely to avoid the use of alcohol as a University student for fear of police bias based on your race?	0.10	1.76	0–7
4. Do you think that the University police are more likely to respond differently to alcohol use because of your race?	2.32	2.37	0–7
5. Do you avoid alcohol use with your University peers to avoid representing your race?	0.86	1.61	0–7
6. How likely do you think it is that your University peer drinking companions will make racist remarks?	2.24	2.25	0–7

*No options below \$12,000 were offered.

enough to cause a significant increase of alcohol-related problems for men as was 4 for women (Wechsler & Nelson, 2001). Additionally, by using the same measure, it makes it possible to compare the results in an effort to get an overall consistent view of binge drinking across a range of subgroups. A single drink is defined by the survey in accordance to previous research as one 12-ounce beer or wine cooler, one 6- to 8-ounce mixed drink or wine glass, or one 1.3-ounce shot of liquor.

Respondents were then classified by standard definitions of alcohol use (Wechsler & Nelson, 2001) as frequent binge drinkers, occasional binge drinkers, or non-bingers and abstainers. Frequent binge drinkers are those who have consumed alcohol on three or more occasions in the past 2 weeks. Occasional binge drinkers are those that have binged one or two times in the past 2 weeks. Non-bingers and abstainers are those who have not engaged in frequent binge drinking 2 weeks prior to the questionnaire administration. Neither non-bingers nor abstainers are considered binge drinking participants under this definition. To examine differences between two ends of the binge drinking continuum, we dichotomized our dependent variable. The dependent variable created was frequent binge drinkers versus non-binge drinkers and abstainers.

Several individual questions concerning race and alcohol use were used as independent variables. The individual questions were derived from themes established in previous qualitative research assessing alcohol use and race relations on a college campus (Peralta, 2005). Respondents were asked questions about police and peer responses to alcohol use based on race, the concern over contributing to negative racial stereotypes via drinking alcohol publicly, and the fear of peers criticizing or using racist remarks at parties where alcohol was present (e.g., "Are you likely to fear contributing to negative stereotypes about your race if you use alcohol with University peers") (see Table 1). Responses ranged from very unlikely to very likely (0 to 7).

Consistent with previous research, we hypothesize that the odds of African American abstaining from alcohol use will be higher than that of their White counterparts. In testing findings emerging from qualitative research (Peralta, 2005), we hypothesize that race-related factors (i.e., the fear of contributing to negative stereotypes, expectations of criticism and racism from peers, and expectations of sanctions from the university itself) will elucidate at least in part, why race affects undergraduate drinking. More specifically, we hypothesize that questions on how race relations affect alcohol use will mediate the relationship between race and abstinence/non-binge drinking in the dichotomous outcome presented. Several control variables have been incorporated into the models due to their relevance in previous research. These variables are employment status, year in college (e.g., freshmen or sophomore), credit hours, grade point average, living arrangement, age, marital status, personal income,

and family income (Dowdall et al., 1998; Galvin & Caetano, 2003; Paschall et al., 1995; Wechsler et al., 2000).

RESULTS

Overall, the binge drinking rate in this study was relatively high; 87 (21%) participants were classified as frequent binge drinkers, 105 (25%) were occasional binge drinkers, and 225 (54%) were non-bingers/abstainers in the past 2 weeks. Among women, 35 (14%) were classified as frequent binge drinkers, 74 (29%) were occasional binge drinkers, and 148 (58%) were non-bingers/abstainers in the past 2 weeks. Among male binge drinkers, 52 (33%) were classified as frequent binge drinkers, 31 (20%) were occasional binge drinkers, and 75 (48%) were non-bingers/abstainers in the past 2 weeks (see Table 2). These differences between alcohol use and gender were examined using chi square analysis and were significant at the .001 level.

Previous research has demonstrated that African American students drink less than White students. Similar patterns were found in the current study. Of White participants, 75 (23%) were frequent binge drinkers, 83 (26%) were occasional binge drinkers, and 162 (51%) were non-bingers/abstainers. Only 7 (10%) African Americans were frequent binge drinkers, 19 (28%) were occasional binge drinkers, and 42 (62%) were non-bingers/abstainers. These differences between race and alcohol use were examined using chi square analysis and were significant at the .05 level.

Using logistic regression, we tested for the main effects of race, gender, and other factors on drinking styles. The results for the dichotomous outcome, frequent binge drinkers versus non-bingers/abstainers, are demonstrated

TABLE 2 Non-Bingers Abstainers vs. Frequent Binge Drinkers By Demographic Characteristics

Variables	Non-bingers and abstainers		Frequent binge drinkers	
	No.	%	No.	%
Gender				
Male	75	59	52	41***
Female	148	81	35	19
Race				
White	163	69	75	32*
African American	42	86	7	14
Race and gender				
White female	106	76	33	24*
African American female	26	96	1	4
White male	56	57	42	43
African American male	15	71	6	29

* $p < .05$; ** $p < .01$; *** $p < .001$.

in Table 3. A significant regression model was obtained ($X^2 = 59.60$ [11], $p < .001$), with a $-2\log$ likelihood of 221.327 and a Pseudo R^2 of .20. Model 1 (the baseline model) demonstrated that the odds of African Americans not binge drinking or abstaining from alcohol in the past 2 weeks, net of other variables in the regression model, were statistically higher compared to whites (odds ratio [OR] = 3.92, $p < .05$). In support of our first hypothesis, the odds that African Americans would engage in binge-drinking/abstinence were significantly greater. This finding is consistent with previous research

TABLE 3 Logistic Regression Predicting Non-Binge Drinking/Abstinence

Variables	Model 1		Model 2	
	b	Odds ratio	b	Odds ratio
Control and Independent Variables ^a				
African American	1.37	3.92*	1.04	2.82
Female	0.82	2.28*	0.64	1.90
School year	-0.13	0.88	-0.09	0.92
Living with spouse parent other relative	1.29	3.64***	1.14	3.13**
Part-time/full-time employment	0.74	2.09	0.79	2.20
Grade point average	0.34	1.40	0.37	1.45
Number of credit hours	-0.13	0.88	-0.10	0.91
Married or cohabitating	20.73	1.01	21.03	1.41
Age	-0.20	0.82	-0.22	0.80
Personal income	-0.27	0.39*	-1.12	0.33*
Parent's income	-0.95	0.76	-0.29	0.75
Race-Relations Variables				
1. Are your non-European American University peers likely to be criticized for drinking 4 or more drinks in a row in one setting?			0.24	1.27*
2. Are you likely to fear contributing negative stereotypes about your race if you use alcohol with University peers?			-0.25	0.78
3. Are you likely to avoid the use of alcohol as a University student for fear of police bias based on your race?			0.22	1.25
4. Do you think that the University police are more likely to respond differently to alcohol use because of your race?			0.04	1.04
5. Do you avoid alcohol use with your University peers to avoid "representing your race"?			0.14	0.87
6. How likely do you think it is that your University peer drinking companions will make racist remarks?			-0.10	0.91
Constant	4.01	54.92	4.45	85.55
-2 log likelihood		221.33		196.18
Cox and Snell R-square		0.22		0.25

^aSexual orientation, religion, and Greek membership were omitted in the analysis due to too few cases. * $p < .05$; ** $p < .01$; *** $p < .001$.

(Cranford et al., 2006; Wechsler et al., 2000). The odds of females similarly drinking less in the past 2 weeks were also statistically higher compared to males (OR = 2.28, $p < .05$). This is also relatively consistent with previous research by Paschall et al. (2005).

The results of model one indicate that two control variables were significant as well: living arrangement and personal income.¹ Those respondents living with a spouse, parent, or other relative had greater odds of non-binge drinking/abstaining from alcohol (OR = 3.64, $p < .001$). Furthermore, respondents with a personal income less than \$12,001 had significantly greater odds of non-binge drinking/abstaining in the past 2 weeks.²

In the second regression model, we added questions on race relations and alcohol use (Peralta, 2005). A significant regression model was obtained ($X^2 = 60.745$ [17], $p < .001$), with a $-2\log$ likelihood of 196.182 and a Pseudo R^2 of .25. Consistent with model one, in model two, two control variables demonstrated a significant effect on non-binge drinking/abstaining. Those respondents that had an income less than \$12,001 and those living with a spouse, parent, or other relative had statistically higher odds of non-binge drinking/abstaining. As demonstrated in model two, the significance of being African American disappeared when race relation questions were entered into the model. Thus, these questions appeared to have a mediating effect on race. The presence of mediation in the current study is important because it demonstrates that race-related factors explain the relationship between race and non-binge drinking/abstinence. Therefore, being criticized for engaging in binge drinking helps to explain why African American students drink less.³

We then ran an ordinary least squares linear regression on race and the six questions on race relations and alcohol use (not shown). It was confirmed that question one had a mediating effect on race ($p < .001$) and was significant in the logistic regression model. The significant question was “Are your Non-European American University peers likely to be criticized for drinking

TABLE 4 Predicted Probabilities for Non-Binging/Abstinence^a

Scale	White	n	African American	n
0 (Very Unlikely)	0.60	111	0.76	16
1	0.65	38	0.80	5
2	0.70	53	0.84	5
3	0.75	37	0.86	16
4	0.79	40	0.89	12
5	0.83	12	0.91	1
6	0.86	9	0.93	4
7 (Very Likely)	0.88	3	0.94	4
Total	0.69	303	0.85	63

^aQuestion asked participants: Are your Non-European American University peers likely to be criticized for drinking 4 or more drinks in a row in one setting?

4 or more drinks in a row in one setting?” Respondents who agreed with this statement had a greater likelihood of non-binge drinking/abstaining in the past 2 weeks (OR = 1.27, $p < .05$). Furthermore, on average, African American respondents were more likely to state that they agreed with question one compared to White respondents (see Table 4).

Due to the small distribution of respondents on the far end of the scale (very likely) for the race-relation questions, another logistic regression model was conducted with a condensed scale (see Table 5). The 0 to 7 scale was changed

TABLE 5 Logistic Regression Predicting Non-Binge Drinking/Abstinence (Condensed Race-Relation Scale)^a

Variables	Model 1		Model 2	
	b	Odds ratio	b	Odds ratio
Control and Independent Variables				
African American	1.37	3.92*	1.04	2.83
Female	0.82	2.28*	0.71	2.03
School year	-0.13	0.88	-0.06	0.94
Living with spouse parent other relative	1.29	3.64***	1.03	2.80*
Part-time/full-time employment	0.74	2.09	0.62	1.86
Grade point average	0.34	1.40	0.40	1.48
Number of credit hours	-0.13	0.88	-0.13	0.88
Married or cohabitating	20.73	1.01	21.07	1.41
Age	-0.20	0.82	-0.23	0.80
Personal income	-0.27	0.39*	-1.01	0.37*
Parent's income	-0.95	0.76	-0.20	0.82
Race Relations Variables				
1) Are your non-European American University peers likely to be criticized for drinking 4 or more drinks in a row in one setting?			0.56	1.74*
2) Are you likely to fear contributing negative stereotypes about your race if you use alcohol with University of X peers?			-0.68	0.51*
3) Are you likely to avoid the use of alcohol as a University student for fear of police bias based on your race?			0.00	1.00
4) Do you think that the University police are more likely to respond differently to alcohol use because of your race?			-0.02	0.86
5) Do you avoid alcohol use with your University peers to avoid “representing your race”?			0.52	1.69
6) How likely do you think it is that your University peer drinking companions will make racist remarks?			-0.18	0.84
Constant	4.01	54.92	4.388	80.519
-2log likelihood		221.33		196.037
Cox and Snell R-square		0.22		0.25

* $p < .05$, ** $p < .01$, *** $p < .001$.

^aSexual orientation, religion, and Greek membership were omitted in the analysis due to too few cases.

to 0 to 2. Respondents in categories 0 and 1 remained the same; however, all respondents from 2 through 7 were combined into the “2” category. The results in model one indicate similar results to those presented in Table 3. Respondents who were African American female, had an income below \$12,001, and were living with a spouse, parent, or other relative had statistically greater odds of non-binge drinking/abstaining in the past 2 weeks. A significant regression model was obtained ($X^2 = 59.597$ [11], $p < .001$), with a $-2\log$ likelihood of 221.327 and a Pseudo R^2 of .22 (see Table 5).

In model 2 (Table 5), questions on race relations were added. A significant regression model was obtained ($X^2 = 60.891$ [17], $p < .001$), with a $-2\log$ likelihood of 196.037 and a Pseudo R^2 of .25. Once again, those respondents who had an income less than \$12,001 and were living with a spouse, parent, or other relative had statistically higher odds of non-binge drinking/abstaining. However, in this model there were two questions on race that were significant and had a mediating effect on race. Similar to the first model, the significant question was “Are your Non-European American University peers likely to be criticized for drinking 4 or more drinks in a row in one setting?” Respondents who agreed with this statement had a greater likelihood of non-binge drinking/abstaining (OR = 1.74, $p < .05$). The second significant question was “Are you likely to fear contributing negative stereotypes about your race if you use alcohol with University peers?” However, the relationship between the second question and non-binge drinking/abstinence was in opposition to what was expected. Those respondents who feared contributing negative stereotypes about their race had greater odds of not abstaining from alcohol use or binge drinking in the past 2 weeks (OR = .508, $p < .05$).

DISCUSSION AND CONCLUSIONS

In the past two decades, researchers have discovered important findings concerning alcohol use among college students. However, these studies often implicitly evaluate alcohol use among “white college men.” Consequently, a majority of researchers have acknowledged low levels of alcohol use among African American students only as a demographic characteristic and do not examine why we consistently see this finding throughout alcohol research. Although a few studies have linked low levels of alcohol use among African Americans to structural inequality, based on class differences, racial segregation, and racially based norms and attitudes (Caetano & Clark, 1999; Galvin & Caetano, 2003; Keeling, 2000; Thornton et al., 1990; Wallace, 1999), one study (Peralta, 2005) in particular, grounded in interview data, documented how university level race relations structure alcohol use sociologically. Peralta’s (2005) qualitative study provided three overarching potential theoretical explanations for why African American students drink less or abstain more

often than Whites: (1) African American students avoid contributing to negative stereotypes regarding their race by not abusing alcohol; (2) African Americans avoid exposure to explicit racism due to the possibility of “disinhibition” among drunken Whites; (3) and finally, African Americans were found to expect unequal reactions and sanctions from the university (e.g., pronounced police surveillance and intervention). This research moves beyond quantitative descriptive findings and theory-building qualitative research by quantitatively attempting to understand why African Americans engage in less alcohol consumption compared to Whites using survey methodology to test grounded theories pertaining to racial differences in alcohol use.

In examining our dichotomous outcome using logistic regression, frequent binge drinkers versus abstainers and non-bingers, we found some support for hypothesis one and partial support for hypothesis two. Consistent with previous research, the odds of African Americans non-binge drinking/abstaining are greater than that of Whites (Cranford et al., 2006; Wechsler et al., 2000). Additionally, the questions on race relations and alcohol use, which stemmed from Peralta (2005), helped to explain racial differences in alcohol use (e.g. African American respondents were more likely to agree that they would be criticized for their drinking compared to White respondents).

Respondents who agreed with the first race-relations question had greater odds of non-binge drinking/abstaining in the past 2 weeks. This finding on the significance of being criticized for drinking was also found when the scale was condensed. Furthermore, the condensed scale produced a new significant question “Are you likely to fear contributing negative stereotypes about your race if you use alcohol with University peers?” Respondents who feared contributing negative stereotypes had greater odds of engaging in frequent binge drinking. This finding is inconsistent with what was expected.

Two important points should be acknowledged concerning our results. First, the questions that were significant in the regression model represented internalizing features. The fact that respondents feel that they will be criticized for their alcohol use or contribute to negative racial stereotypes could be more important in abstaining from alcohol than the fear of racist remarks from alcohol-using peers because it concerns personal identity and actions. For example, racist remarks from peers may not threaten one’s personal identity because potential targets for discrimination may not feel that it was directed at them. Additionally, an individual may not feel like they have control over the thoughts and remarks of others, but they do have control over their own actions. Therefore, minorities can not be personally criticized for their alcohol use by avoiding alcohol use.

Second, the results indicate that respondents who feared contributing to negative stereotypes about their race by using alcohol were almost twice as likely to engage in frequent binge drinking. This result can be interpreted in several different ways. Some African American students may

feel that they have to negotiate “white space” and engage in binge drinking behavior to paradoxically challenge negative stereotypes that are often associated with African Americans. Also not all African Americans experiences are the same. Some African American students may refrain from frequent binge drinking because they wish to avoid race-based criticism. However, others may acknowledge the possibility of contributing to negative racial stereotypes but still engage in the behavior because they have not yet been exposed to negative sanctions from their White peers. The third possibility deals with a potential data limitation. African American respondents were less likely to answer the second race-relations question (i.e. contributing to negative stereotypes) than other questions; therefore, there may have not been enough African American respondents to affect the direction of the regression coefficient when compared to White respondents. Relatedly, the survey questions may need to be refined to better capture the intent of the question. It is also important to recognize the composition of the sample. The sample size is relatively small and is cross-sectional. Therefore, it is not possible to generalize the findings from this study to other colleges and universities. Additionally, we are unable to determine whether these attitudes about race and alcohol use developed before or during college. This study serves as a starting point for further analysis and theory building on the structuring effects of race and race relations on alcohol use behavior. More research on how socio-structural aspects of race and ethnicity impact alcohol use is needed.

One of the driving factors of this research was to gain a more nuanced understanding of race and alcohol use among college students. This is of particular importance due to the physical and mental health consequences of binge drinking for drinkers and non-drinkers alike. Although a few studies have linked African American alcohol use patterns to class differences, racial segregation, and race-based norms and attitudes (Caetano & Clark, 1999; Galvin & Caetano, 2003; Keeling, 2000; Thornton et al., 1990; Wallace, 1999), this study demonstrates general support for the structuring effects of race on drinking behavior.

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NOTES

1. Analysis of frequent or occasional binge drinkers versus non-binge drinkers or abstainers and occasional binge drinkers versus non-binge drinkers or abstainers were also conducted; however, there were no significant results relative to the race relation questions.
2. Information on sexual orientation, religion, and Greek membership were also collected but were left out of the regression models because there was not an appropriate distribution of responses.
3. Interactions between race and the six questions on race relations and alcohol were also tested using logistic regression to determine if there was also moderation. No interactions were found.

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