

A Comparison of African-American versus Caucasian Men Screened for an Alcohol Administration Laboratory Study: Recruitment and Representation Issues

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Alcohol administration laboratory studies represent the most effective method of testing dose effects and other precisely measured variables on alcohol-related human behavior. However, with some notable exceptions (e.g. Abbey, Saenz, Buck, Parkhill & Hayman, 2006; Davis, Norris, George, Martell & Heiman, 2006), the small numbers of African-Americans included in these studies limits generalizability of results to African-American drinkers. In many such studies, numbers of African-American participants are not even reported and perhaps can be assumed to be negligible.

In developing a participant pool for a recent alcohol administration laboratory study of young men, we were able to recruit 53 African-Americans for screening. To better understand some of the recruitment and representation issues involved, we compared those 53 men with a randomly-selected sample of 50 Caucasian men from the same screening pool on measures of drinking, drug use and psychological problems. All potential participants were told before screening that they must be between the ages of 21 and 30, physically healthy, and willing to drink alcohol in a laboratory setting. The sample differences were evident even at this recruitment stage: about 50% of the African-American men (versus about 10% of the Caucasian men) approached by recruiting teams refused to participate even in screening, because they did not drink. Differences between the two samples that emerged from the screening data included some demographic differences (e.g. although all men were age 21-30, the 53 African Americans were older than the 50 Caucasians, M age = 24.4 vs. 22.7; sd 2.9 vs. 2.1; and they were less likely to be attending college currently, 83% vs. 95.7%). More importantly, analyses through the use of hierarchical regression models (entering ethnicity and age first) revealed some drinking and drug use differences. Caucasians reported more drinking days in the last 90 ($M=45.4$, $sd=3.8$ vs. $M=20.1$, $sd=3.9$; $p<.0001$), and scored higher on the Rutgers Alcohol Problem Index (RAPI), indicating that they had experienced more negative consequences from drinking in the past year ($M=48.7$, $sd=18.2$; $M=38.3$; $sd=17.7$; $p<.005$). Caucasians also reported more marijuana use (54% had used in the past 90 days vs. 35% of African-Americans) but the numbers who reported daily use of marijuana was similar (15% for both). Self-reported use of other illicit drugs was similar for both groups (about 4% of the sample). Thus, most importantly, even when non-drinkers were excluded from screening, African-American men tended to report less drinking and marijuana use than Caucasians.

The sample was also screened with the SCL-90-R (Derogatis, 1979) (to exclude men with severe psychological problems from the alcohol administration study). A MANOVA revealed no racial group differences on scores of the various indicators of psychological problems. However, further regression analyses revealed that for African-Americans only, the RAPI (the measure of alcohol negative consequences) was significantly correlated with the SCL-90-R Interpersonal Sensitivity and the Paranoia scale scores (0.47, $p<.001$; 0.44, $p<.002$) and, for Caucasians only, the number of days drinking was significantly correlated with Psychoticism (0.41; $p<.006$). Finally, again, for African-Americans only, although their overall frequency of marijuana use in the last 90 days was lower than for Caucasians, marijuana use was significantly associated with Paranoia (0.45, $p<.001$), Hostility (0.55, $p<.0001$) and the SCL Summary Score, Global Severity Index (0.43; $p<.001$). Thus, alcohol and marijuana use appear to relate to different psychological issues for the two groups. Results will be discussed in terms of recruitment decisions and practices to increase the numbers of African-Americans in alcohol administration studies and how these may affect sample representation in systematic and possibly unexpected ways.